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Communicating with migrant and refugee-background patients: Professional interpreters or AI?

Ineke Crezee
Auckland University of Technology

Tosca Konings
concurrently employed at 113 Zelfmoordpreventie

Yunduan Gao
Department of Languages and Cultures,
Beijing Normal-Hong Kong Baptist University, Zhuhai, China

Abstract: Over the past decades, the Netherlands have received significant numbers of migrants and asylum seekers (CBS 2022a; CBS 2023). As a result, GPs in the Netherlands care for a very culturally and linguistically diverse (CALD) (Sawrikar and Katz 2009) patient population. general General Practice Support Professionals (GPSPs) (in Dutch: *praktijkondersteuners huisartsenzorg* abbreviated as *POHs*)), hereafter General Practice Support Professionals (GPSPs), play an essential role in offering care to patients. General Practice Support Professionals (GPSPs) can specialise in providing support for patients with somatic illnesses (POH-S), mental health issues (POH-GGZ), or offer tailored services to other groups of patients. The first group of GPSPs (POH-S) support patients with a range of non-communicable diseases such as diabetes, cardiovascular disease and COPD, focusing on lifestyle changes and prevention. The second group of GPSPs support patients with mental health issues, through brief interventions, in collaboration with the General Practitioners (GPs) and mental health organisations. GPSPs who support patients with somatic conditions have usually completed a 3-year tertiary education qualification as a nurse or physician assistant followed by a 1-year postgraduate training course (InHolland Hogeschool n.d.), while those working with patients with mental health issues have usually completed a bachelor's degree in nursing, psychosocial nursing, social work or applied psychology, followed by 2 years work experience in the mental health setting (Forta Opleidingen. n.d.; RINO groep n.d.).

This article presents the findings of a 2024 survey conducted among 418 General Practice Support Professionals (GPSPs), which asked them about their communication with patients from migrant and refugee/asylum seeker backgrounds. Most respondents supported patients with somatic illnesses. The authors will present some demographic information on the Netherlands in general, the background of

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the largest migrant and refugee groups as well as statistical information on the number of asylum requests in the Netherlands. The literature review section will focus on communication between health providers in the primary care settings, focusing particularly on the increasing use of AI, as well as the Generic Guidelines: Addressing language barriers in the health and social setting (translation ours) released by the Patient Federation in the Netherlands (Patiëntenfederatie, October 2025).

Keywords: non-professional interpreters; healthcare interpreters; patient communication needs; migrant-background patients; refugee-background patients; translation apps

1. Introduction and background

In Dutch general practice, special general General Practice Support Professionals (GPSPs) form an essential part of the practice, in providing specialised care to patients. There are various specialisations within the field, each with specific training requirements and responsibilities. Most of the general General Practice Support Professionals (GPSPs) surveyed for this article worked in the somatic field (POH-S), and had completed a programme towards qualifying as a nurse or as a physician assistant, followed by a one-year postgraduate programme. The role of the general General Practice Support Professionals (GPSPs) (hereafter: GPSPs) is to provide support for patients with chronic conditions such as diabetes, COPD, and cardiovascular disease, which includes guidance on prevention and lifestyle changes, as well as monitoring. Other GPSPs focus on providing guidance for young people (POH-Jeugd) or to patients with mental health problems (POH-GGZ) (Forta Opleidingen. n.d.).

The Netherlands have welcomed significant number of people from other countries, either as migrants or as asylum seekers. This means that general General Practice Support Professionals (GPSPs) provide guidance and care with patients from Culturally and Linguistically Diverse (CALD) communities, where these patients are often either Limited Dutch Proficient or unable to communicate in Dutch at all.

As of January 1, 2022, the Netherlands had a population of approximately 17.6 million people (CBS 2022b). Of these, about 4.4 million individuals (25%) had a migration background, meaning they were either born abroad or had at least one parent born abroad. Among this group, approximately 2.4 million were first-generation migrants (born abroad), and about 2 million were second-generation (born in the Netherlands with at least one foreign-born parent).

According to the Dutch Central Bureau of Statistics (CBS 2022b), the largest non-Dutch origin groups in the Netherlands are:

- Turkish: Approximately 430,000 people (2.44% of the total population)
- Moroccan: Approximately 419,000 people (2.38%)

The older people in these groups represent the most significant non-Dutch speaking backgrounds in the country. According to the CBS there are notable populations from other regions: approximately 173,000 Polish people, and an increasing number of Syrian-origin people.

Between January 2015 and July 2025, the Netherlands received hundreds of thousands of asylum applications, with annual fluctuations influenced by policy changes, migration trends and global crises such as the civil war in Syria and conflicts in Yemen and Sudan. In 2024 alone, the Netherlands received 31,999 asylum applications, primarily from Syria, Iraq, Turkey, and Eritrea. The acceptance rate for initial applications was approximately 79%, with Syrians and Eritreans having the highest success rates. In 2025, monthly asylum intake ranged from 2,800 to 3,800 applications, including first-time and repeat applications as well as family reunifications (IND 2025).

Table 1 provides an overview of asylum requests received in the Netherlands between 2015 and 2024.

Table 1: Asylum Requests in the Netherlands (2015–2024)

Year	Total Asylum Requests	First-Time Applications	Top Countries of Origin
2015	~43,000	N/A	Syria, Eritrea, Iraq
2016	20,945	19,285	Syria, Eritrea, Afghanistan
2017	18,210	16,145	Syria, Eritrea, Iraq
2018	24,025	20,470	Syria, Iran, Turkey
2019	25,245	22,470	Syria, Nigeria, Turkey
2020	15,265	13,710	Syria, Turkey, Afghanistan
2021	26,520	24,670	Syria, Afghanistan, Turkey, Yemen, Eritrea
2022	~37,000	35,535	Syria, Turkey, Eritrea
2023	39,767	38,377	Syria, Turkey, Eritrea, Yemen, Somalia
2024	~34,000	N/A	Syria, Iraq, Turkey, Eritrea

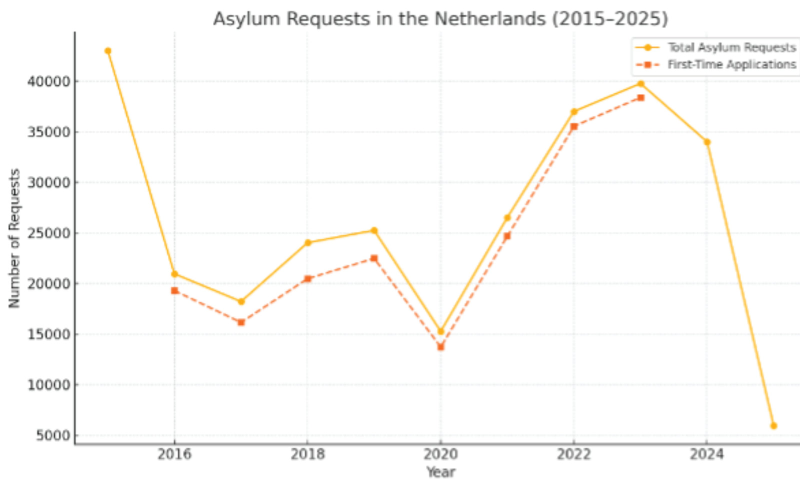

Figure 1: Asylum requests in the Netherlands 2015 to 2025

It will be clear that the Netherlands healthcare system provides services to a large number of patients from culturally and linguistically diverse (CALD) backgrounds who may have no or only limited proficiency in Dutch. In the Netherlands, interpreters aiming to work in official capacities—such as in courts, with the police, or within healthcare settings[1]—must undergo specific training and obtain accreditation (Crezee et al., 2025). In May 2011, after providing budgetary support for interpreters working in the healthcare settings for 35 years, Edith Schippers, the then Minister of Health announced that the government would no longer pay for such services (Gentile, 2017, p. 66). Gentile writes that

> "…for those hospitals and healthcare personnel that have not yet made alternative arrangements for dealing with foreign patients, improvisation and, in extreme cases, body language, in the hope of guessing, with a little bit of luck, the right diagnoses and treatments (2017, p. 68).

This article aims to present the views of primary care professionals and their strategies for communicating with migrant and refugee background patients

1 To become a sworn interpreter, one must register with the Register of Sworn Interpreters and Translators (Rbtv), managed by the Bureau Wbtv. This registration is mandatory for interpreters working with government agencies, including courts, police, and immigration services. Acolad Academy offers training for those interested in healthcare interpreting, to ensure interpreters adhere to international best practices in healthcare interpreting.

who may not be able to communicate their healthcare needs in Dutch, the dominant language used in the Netherlands healthcare system. The discussion of the findings will focus on the use of professional interpreters as opposed to AI, since the use of non-professional interpreters is discussed in another publication (Authors, Redacted).

2. Literature review

This section will focus on some of the cultural and linguistic barriers which may hamper intercultural communication in the primary healthcare setting, before reviewing the literature on patient and health professional perspectives on such challenges, and preferred modes of communication assistance, whether they involve non-professional interpreters or professional interpreter services.

2.1 Effective communication in primary care

In primary care settings, nurses and nurse practitioners—including *praktijkondersteuners* (GPSPs) in the Netherlands—play a pivotal role in managing chronic conditions, conducting preventive care, and supporting psychosocial well-being. However, communication with patients from migrant and refugee backgrounds presents unique challenges that are well-documented across the literature. Van den Muijsenbergh, Ujcic-Voortman and Suurmond (2014) write that, despite the availability of professional interpreters, Dutch primary care providers often prioritize expedience over accuracy, deterred by time pressures and inadequate reimbursement, in spite of the fact that professional interpreters are available. Communication may be hampered by cultural and linguistic barriers.

2.1.1 Language Barriers

Language barriers are consistently cited in international research (Evenden et al. 2022; Whitaker et al. 2022) as one of the main obstacles to effective communication in primary care. We see similar patterns in the Dutch primary care setting, where GPSPs working with patients with somatic or mental health issues (POHs and POH-GGZs) regularly encounter communication difficulties with patients who have limited proficiency in Dutch (Seeleman et al. 2015), often encountering difficulties in conveying important healthcare messages or eliciting important information when patients have limited proficiency in Dutch.

2.1.2 Cultural barriers

Beyond language, cultural differences can lead to miscommunication around symptoms, health beliefs, and treatment expectations. International studies have shown that migrant patients may express mental distress through somatic symptoms, which can be misunderstood by providers unfamiliar with these cultural scripts (Kokanovic et al. 2010). (2021) conducted her doctoral research by observing interpreter-mediated interactions between health professionals and Chinese-speaking patients at a large tertiary teaching hospital in Auckland, New Zealand, followed by interviews with patients, interpreters and health professionals. The final reason might or might not be attributable to cultural differences, as studies in other contexts also reported the tension between the Voice of Lifeworld and Voice of Medicine (Leanza et al., 2013). Regardless of the reason, such communication patterns may indeed pose challenges to effective communication and require interpreter expertise and sensitivity to cultures and relationships in the health context.

In the Netherlands, POH-GGZs report difficulty identifying trauma-related symptoms that are culturally embedded or hidden due to stigma (de Jong, Komproe, and Van Ommeren 2016). These challenges are especially pronounced when using informal interpreters, who may filter or suppress emotionally difficult content.

In the Dutch context, GPSPs working with patients with mental health issues (*praktijkondersteuners geestelijke gezondheidszorg* - POH-GGZ) often face challenges in identifying trauma-related symptoms among refugees, especially when these are culturally embedded or unspoken due to stigma.

2.1.3 Lack of health literacy

Another issue is that of health literacy, which is defined by the World Health Organisation (2024) as representing

> “the personal knowledge and competencies that accumulate through daily activities, social interactions and across generations. Personal knowledge and competencies are mediated by the organizational structures and availability of resources that enable people to access, understand, appraise, and use information and services in ways that promote and maintain good health and well-being for themselves and those around them.

Gao (2021) observed how elderly patients in particular sometimes gave confusing answers which lacked clarity and logic or were not directly related to what was asked. She observed particularly in response to questions aimed to elicit straightforward information, such as “Why did she fall? “or “No pain in the eye?”. Based on both her observations and interviews, she deduced that there appeared to be various reasons for this. These included patients having

poor communication skills associated with literacy where some communicated poorly even in their native language, and/or some patients' tendency to share their life stories. She also observed what appeared to be deliberate lack of cooperation due to the patient's seeming discontent with their healthcare experience at the hospital, as expressed to the interviewer.

2.2.1 Primary care nurses' perspectives

Primary care nurses and GPSPs often recognize the need to adapt their communication styles when working with diverse patient populations. Studies in the Netherlands show that GPSPs generally value cultural competence and person-centred care, but many feel underprepared to address the specific needs of refugees and migrants (Truman, Raine and Brophy 2009). A study by Suphanchaimat et al. (2015) emphasizes that nurses often rely on their interpersonal skills and clinical experience to navigate cultural differences, but these approaches may not always compensate for the lack of formal cultural competence training. In the Netherlands, initiatives such as the inclusion of intercultural communication modules in POH training programs have been developed, but uptake and effectiveness remain variable (Dedding et al. 2011).

2.2.2 Patient Perspectives

From the perspective of patients, trust, empathy, and being listened to are essential components of effective communication. Research suggests that migrant and refugee patients often feel more comfortable with healthcare providers who take the time to explain diagnoses clearly, show cultural sensitivity, and respect patients' experiences and values (Robben et al. 2012). However, experiences of discrimination, stereotyping, or being dismissed can significantly undermine the therapeutic relationship (Ingleby 2012).

For refugees, especially those with histories of trauma, the quality of communication can strongly affect engagement with care. Refugee patients often value continuity of care and prefer providers who are familiar with their history, which places General Practice Support Professionals (GPSPs) in a potentially strong position due to their ongoing relationships with patients in general practice (Gerritsen et al. 2006). In terms of communicating with traumatised refugee-background patients, Van der Jagt-Blokland and colleagues (2023) discussed possible approaches when working with traumatised patients in general practice, while Çinar and colleagues (2025) described personcentred integrated primary care for refugees. Dedding et al. (2011), described the development of intercultural communication modules in POH training programs (Dedding et al. 2011). Additionally, community-based strategies involving health navigators or bicultural professionals show promise in building trust and improving health literacy among diverse populations (Van Loenen et al. 2018).

2.3 General Practice Support Professionals (GPSPs)' experiences and strategies

In response to these challenges, some nurses adopt strategies to work around or minimize the limitations of informal interpretation. These include using simplified language, visual aids, and non-verbal cues; building long-term relationships to foster trust; or scheduling follow-up consultations with professional interpreters when possible. However, such strategies are not consistently effective and often place the burden on the provider to "make it work" (Suphanchaimat et al. 2015).

Preferred communication strategies include the use of professional interpreters, especially in mental health consultations; culturally tailored health education materials; and sustained cultural competence training for nurses and General Practice Support Professionals (GPSPs) (POHs) (Seeleman et al 2015).

Recently, guidelines for health professionals were issued, recommending that health professionals or social workers first assess the level of complexity of the upcoming interaction. The guidelines state:

> Do you expect this conversation with your patient or client to be complex, sensitive, or significant? Or is it an intake or first meeting?

In that case, the guidelines recommend, either using a professional interpreter or transferring care to a health professional who speaks the patient's language, without specifying how the latter's proficiency is assessed, if at all.

The guidelines then continue by saying:

> Check regularly, throughout the interaction, whether you truly understand each other. A simple nod doesn't mean anything! Ask your patient or client to repeat the key points in their own words to confirm what has been discussed.

This advice includes the importance of "teach back" where the professional asks the client or patient to repeat key information in their own words.

The guidelines continue with instructions on how to engage an interpreter, and recommends that professionals already have their login details for the interpreting service saved on their devices. Next the guidelines recommend that, if the professionals feel that the interaction will be relatively straightforward they can consider asking a non-professional interpreter to interpret, or using a translation app. In the latter case, the guidelines provide some words of caution:

> If you are both comfortable using such a tool, it can help support the interaction. However, do remember that these tools do not translate every language equally well. And remember to never enter personal information, as privacy cannot be guaranteed.

Recommending that health professionals check whether the patient is comfortable using a translation tool is sensible, even though a study on migrant communities in the Netherlands (Valdez et al. 2023) found that many rely on machine translation (MT) tools to access health information, due to limited availability of professionally translated materials. This highlights a gap in structured community translation services which could be addressed by online training such as the one available in Australia[2].

2.4 What about AI?

While translation apps are increasingly used in healthcare settings, there is currently limited research on their effectiveness in eliciting accurate patient histories or delivering culturally and linguistically appropriate advice. Existing studies have focused primarily on feasibility and user satisfaction, rather than clinical outcomes. A 2025 pilot study of the *Translatly* app in Germany assessed its use in clinical consultations (Ortega et al, 2025). While it showed promise in improving communication, the study focused on feasibility and user preferences—not on clinical outcomes like history-taking accuracy or culturally appropriate advice. An Australian exploratory study trialled three translation apps (CALD Assist, Talk To Me, and Google Translate) in aged-care hospital wards (Hwang et al., 2022). It found that apps helped with basic tasks like identifying pain and supporting daily activities, but did not evaluate outcomes related to history-taking or culturally tailored advice. A Monash University expert review evaluated 15 translation apps for healthcare use (Panayiotou et al., 2019). Only two were deemed suitable for *everyday* conversations [italics ours]. The review emphasised that none of the apps should replace professional interpreters, especially for complex tasks like assessments or treatment planning. Work by Ortega et al. (2025), Hwang et al. (2022) and Panayiotou et al. (2019) suggests that further research is needed and that applications cannot replace human interpreters in the healthcare setting.

2.5 The gap

Previous studies explored health professionals' perspectives on interpreter-mediated healthcare focused on family medicine physicians (e.g. Cotret et al. 2021; Schwei et al., 2019; Zedendel et al. 2016), social workers (Cotret et al.

2 The Community Translation Course by Professor Mustapha Taibi (available via nexpd.com at https://nexpd.com/product/introduction-to-community-translation/) is a comprehensive online course covering: Ethics and accuracy, cultural mediation, the social impact of translation. Those who successfully complete are awarded a Certificate and NAATI recertification points.

2021), providers working in nursing, mental health, emergency medicine, oncology, obstetrics and gynaecology (Hsieh 2015). Greenhalgh et al. (2006) looked at involved GPs, practice nurses, community nurses, receptionists (in addition to patients, family and professional interpreters. The current study provides a snapshot of communication strategies utilised by Practice Support Professional (PSP) perspectives in the Netherlands in the age of AI, filling a gap in the literature.

3. Methodology

A questionnaire involving 10 questions was posted on the website of the professional body of general practice support nurses, resulting in 418 responses. Questions 2, 9 and 10 were thematically analysed by the second author, guided by the six phases described by Braun and Clarke (2006; 2021, pp. 93-106; 2022, pp. 10-13). This was an iterative process, where the researchers first familiarised themselves with the data, before generating initial codes and systematically coding interesting features. Step three consisted of collating codes into potential themes, through interpretative work, while steps four and five consisted of reviewing and naming themes before we moved to writing up a report of our findings. The questionnaire has been listed in the Appendix. Descriptive statistics (APA, n.d.) were used to summarise the results of Questions 1, 3, 4, 5, 6, 7 and 8.

4. Findings

4.1 Role and experience

First, we asked respondents how long they had been working in their role as support professionals in general practice settings. Just under a quarter of respondents (27%, n=116) had been working as General Practice Support Professionals (GPSPs) for less than five years, while 73% had been working in the role for more than 5 years. Table 2 provides a breakdown of responses.

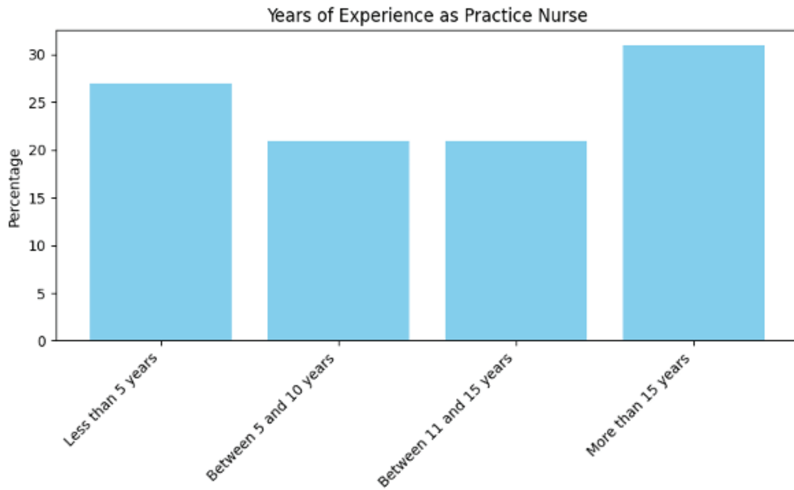

Figure 2: Years of experience as a practice nurse in the general practice setting

Secondly, respondents were asked how they viewed their role. Their answers are represented in Table 3. Promoting and maintaining health appeared as a theme reflecting an overall goal. Within this theme, respondents mentioned preventing (chronic) illnesses or complications, and reducing risks, as well as health promotion and maintenance through supporting general quality of life and wellbeing, by (early) detection of illness or problems, and by encouraging healthy lifestyle and behaviour. As Respondent 151 put it: “Ensuring that patients become/remain as healthy as possible.”

A second theme related to specific target groups respondents worked with, where people with chronic illnesses or a risk of developing illnesses were mentioned most frequently, while older adults were mentioned less frequently:

> Supporting, guiding, and treating patients with a chronic condition, with the goal of helping them manage it as effectively as possible. (Respondent 205)

Themes three and four reflect the ways in which practitioners describe the support they provide to their patients. Through coaching, guiding, motivating and/or providing general support: “Supporting and guiding people in managing their health situation” (Respondent 68), or more specifically, through education, information and/or working with health goals: “Providing education, information, and tools (Respondent 205) and “in order to achieve the health goals set in advance” (Respondent 8).

Aside from providing guidance and education, respondents also mentioned their role as healthcare professionals, which might include monitoring a patient's test results: "monitoring blood and urine test results" (Respondent 215), or medication management: "managing and adjusting medication" (Respondent 262).

The fifth theme reflects respondents' role in tailoring care to individual patients, by being approachable and creating a trusting relationship with the patient: e.g.: "Building trust in interactions with the patient and being able to put myself in the patient's shoes" (Respondent 101).

Being able to take the time and continuity of care enhance the ability to build trust, as Respondent 174 stated:

> By giving the patient more time and attention, and by supporting and treating their conditions, you build a strong relationship based on trust. This creates a solid therapeutic alliance.

Some respondents referred to the importance of encouraging autonomy and self-management, with Respondent 136 stating: "Helping patients take the lead in managing their own health skills.

Theme six reflects the respective role of General Practice Support Professionals (GPSPs) (PSPs) in relation to the GP and other medical professionals:. One respondent stated:

> Working as an extension of the GP gives us more time to look into patients' circumstances and uncover the question behind the question or the reason for the dysregulation. (Respondent 21)

While another worded it as follows

> ... for example, involving care providers such as physiotherapists, occupational therapists, or dementia case managers. (Respondent 419).

Lastly, only a small group of respondents mentioned the execution of protocols and following guideline-based care, e.g.: "offering structured care in accordance with protocols" (Respondent 250). Table 3 presents an overview of how respondents viewed their roles.

Table 2: How respondents viewed their roles working with patients

1. Promoting and Maintaining Health
   This is the overall goal.
   - Prevention: Preventing (chronic) illnesses or complications, and reducing risks.
   - Health promotion and maintenance: Supporting quality of life, wellbeing, and "positive health."
   - (Early) detection: Identifying illness or problems early.
   - Healthy lifestyle and behaviour: Encouraging healthy habits and choices.
2. Supporting People with Chronic Illnesses and Older Adults
   - Chronic illness: Helping patients manage and live with long-term conditions, including palliative care and acceptance.
   - Elderly care and healthy ageing: Supporting older adults with their care needs.
3. Guidance and Education
   - Education and information: Explaining, informing, and raising awareness.
   - Support and coaching: Motivating and guiding patients.
   - Goals and treatment plans: Setting and working towards health goals.
4. Medical Monitoring and Treatment
   - Health monitoring: Carrying out checks such as blood and urine tests, and explaining results.
   - Treatment: Providing care and treatment.
   - Medication: Starting, adjusting, and explaining medication.
5. Personalised Care
   - Trust and approachability: Being a trusted point of contact.
   - Person-centred care: Tailoring care to the patient's needs.
   - Time and attention: Spending more time with patients than a GP might.
   - Continuity and regular contact: Offering consistent care.
   - Self-management: Encouraging patients to take charge of their own health.
6. Medical Link and Connector
   - Supporting the GP: Helping and relieving the GP, acting as a bridge between GP and patient.
   - Medical connector: Referring patients to other professionals (e.g. physiotherapists, dietitians, mental health services).
7. Guidelines and Protocols
   - Following protocols: Providing structured, guideline-based care.

It will be clear that all of the above require clear channels of communication.

4.2 Frequency of working with limited Dutch proficient patients

Question 3 asked how often respondents worked with limited Dutch proficient patients. Almost half of our survey respondents (49%) stated that they worked with limited Dutch proficient patients every week, while 14% reported working with these patients every fortnight and 26% stated working with this group of patients every month. Figure 1 shows how often respondents worked with limited Dutch proficient patients.

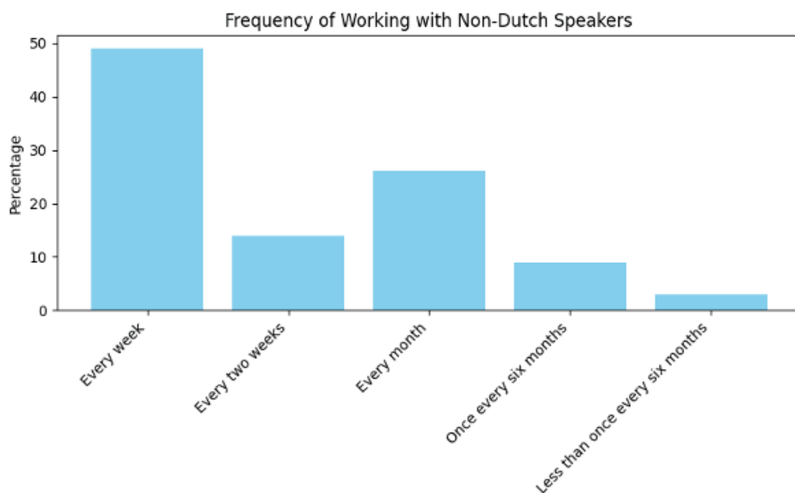

Figure 3: Frequency of working with limited Dutch proficient patients

When asked about the backgrounds of limited Dutch proficient patient backgrounds (Question 4) 70% of respondents (n=300) said they worked with non-Dutch speakers with a migration background, while 17% (n=75) worked with non-Dutch speakers with a refugee background. A small percentage (7%, n = 30) said they worked with patients from an asylum seeker background, while 24 respondents (6%) said they did not usually work with non-Dutch speakers.

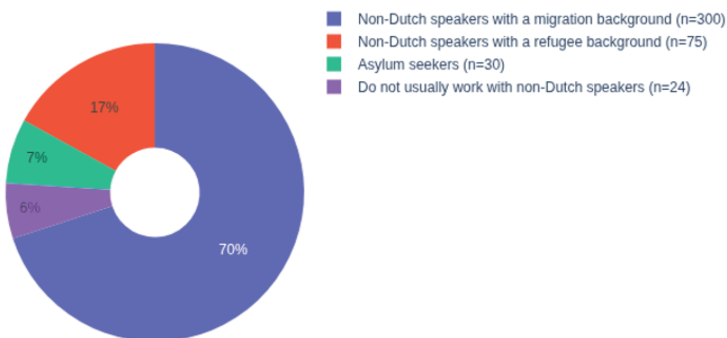

Figure 4: Backgrounds of the non-Dutch speakers General Practice Support Professionals (GPSPs) said they worked with

In response to Question 5, which asked what type of health support they provided, 90% of respondents (n=387) stated that they provided physical health support, with 8% of these (n=34) adding that they mainly worked with older adults. A very small number of respondents (n=3) replied that they provided mental health support, while 6 respondents said they provided a combination of mental and physical health support.

4.3 Preferred communication strategies

We asked respondents about their actual and preferred communication strategies. In answer to the first question, 4% of respondents (n=19) said they utilised the services of a professional interpreter on site, with a larger number saying they engaged a professional interpreter via video or phone (21%, n=89). However, 87% of respondents (n=374) stated that they used the patient's own interpreter (family or friend), while 65% said they used a translation app such as Google Translate or SayHi, and 59% (n=256) said they used gestures or visual aids such as images.

Some respondents expressed their satisfaction with existing translation tools, such as SayHi, with Respondent 97 commenting: "Communicate mainly via the SayHi app. It's easy to use and offers many language options. The app speaks the translation aloud, and it's also displayed on screen so you can read it).

Although most respondents mentioning translation tools as their preferred strategy, some also mentioned limitations of existing translation tools or suggestions for better tools, with respondent 87 stating: "Google Translate works well—provided the patient is able to use it well". While respondent 58 commented:

> A reliable app that uses AI to provide accurate information based on medical conditions, so you can provide targeted health education. It should also allow voice input, with the spoken content displayed visually (Respondent 58).

Some respondents preferred the patient to bring their own family member or friend as an informal, non-professional interpreter. This is discussed in more detail in a different publication (authors, forthcoming).

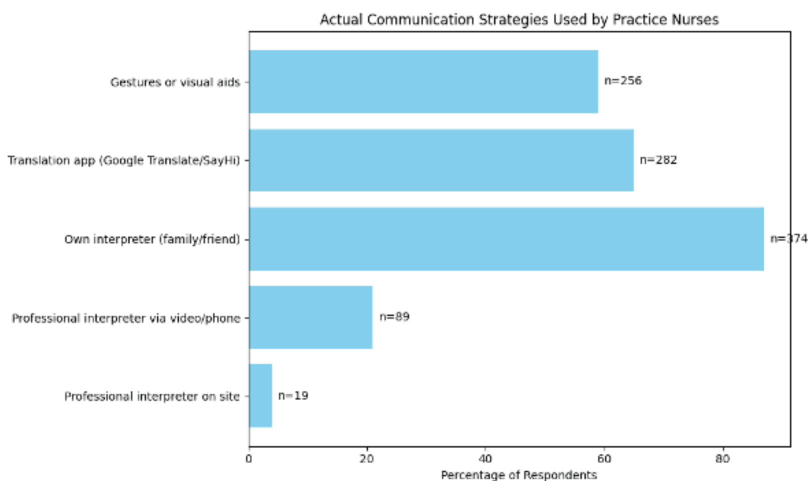

Figure 5: Strategies used by General Practice Support Professionals (GPSPs) when communicating with limited Dutch proficient patients

For each actual strategy, we asked respondents to what extent they were satisfied with the mode of communication in question. Their responses are represented in Figure 6.

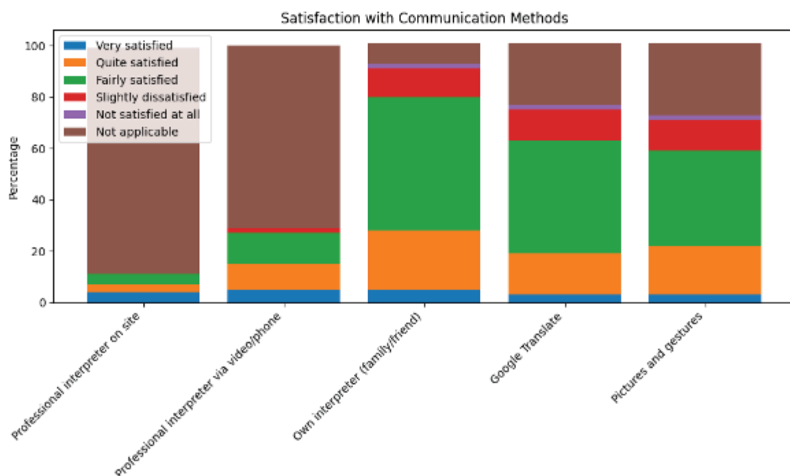

Figure 6: Satisfaction with Communication Methods

4.4 Suggestions for improving communication

The suggestions respondents gave to improve communication with this group of patients were very diverse and included suggestions such as having easier access to an interpreter: through receiving adequate compensation and time to consult an interpreter, having a fixed interpreter, or having patients bring their own interpreter. Some respondents suggested consulting intercultural General Practice Support Professionals (GPSPs) or other colleagues who are proficient in both languages:

> Within our organization, we are able to consult an intercultural practice support professional if we can't resolve an issue ourselves. (Respondent 220)

However, there was no mention of how to assess to what extent these General Practice Support Professionals (GPSPs) were in fact fully proficient in the Language Other than Dutch. Municipal or district-based facilities were also suggested a couple of times.

The use of online or physical materials was mentioned frequently: images, videos, websites, brochures, etc. Some respondents also mentioned the use of gestures or plain language. The use of translation tools was also mentioned by a small group of respondents.

Some respondents suggested using translation tools or AI, e.g.: "using an AI tool such as SpeakSee" (Respondent 4), while Respondent 308 added:

> What matters most is that the interaction goes smoothly and that the patient feels safe and heard. Sometimes, communicating via Google Translate can be very helpful. (Respondent 308)

Other respondents (again) mentioned their desire for better translation tools:

> An app or device that translates automatically without interrupting the conversation by requiring typing or involving another person. Ideally, I want to sit one-on-one with my patient without a third party (interpreter)present. (Respondent 86)

This comment reflected a desire for agency, without being dependent on third parties.

Respondent 100 commented: "Perhaps AI could play a role in the future. For now, I manage with an interpreter, using gestures or pointing, plus images."

Several respondents mentioned a preference for material or translation tools using spoken language with Respondent 215 stating:

> There's a lot of digital content available, but for this group that's often difficult. It would be helpful to have spoken text in their own language, which they can also listen to again at home.

This last comment confirms findings discussed by Taibi et al. (2025) where target readers preferred audiovisual health messaging, as well as research by Crezee et al. (2023). Where health messages are in audiovisual form, patients and their loved ones can listen again at home.

Respondents also suggested adjusting the way of communicating to the patient, being (more) patient with non-Dutch speaking patients, and to check whether what has been said is understood, e.g.: “Keep it simple—avoid overwhelming people with too much information at once, and focus on what really matters. That’s what person-centred care is all about!” (Respondent 320).

Several respondents suggested that health professionals should have more professional training, tools and support to help them improve intercultural communication. While other respondents suggested placing more emphasis on Dutch language acquisition: “Providing training to healthcare professionals on effective communication with patients who speak other languages can help them better manage language barriers and cultural differences” (Respondent 281). Respondent 286 commented: “Encourage people to improve their language skills by using resources such as those offered by libraries.” While this advice makes sense, it is often very difficult for those who came to a country without a solid grounding in their own first language to acquire another language to a high level (Crezeehe008), and there is no doubt that interactions in the health setting require a high level of proficiency. In this context, Respondent 238 added: “We have to make do with the resources we have. Many of them are also illiterate, so the options are limited.”

Figure 5 represents a comparison between healthcare providers’ preferred communication strategies and their actual practices when interacting with patients who have limited proficiency in Dutch.

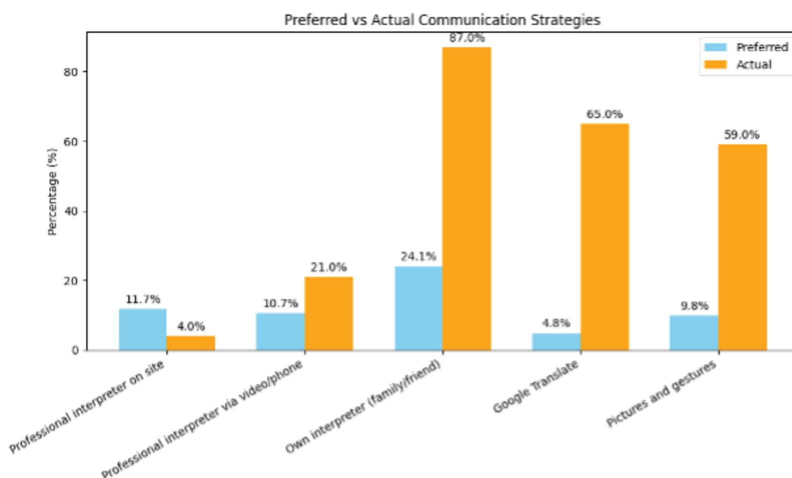

Figure 7: Preferred versus actual communication strategies

The findings showed that both Google Translate and Pictures/Gestures are widely used (65% and 59% respectively), yet they are less preferred, indicating a gap between practicality and perceived effectiveness. Known interpreters (family/friends) seemed to be both the most preferred and most used strategy, but actual usage (65%) far exceeded the preferred rate (24%), suggesting reliance on convenience over ideal practice.

4.5 Cultural and linguistic issues

When asked what they felt was the biggest issue when communicating with patients who do not speak Dutch well, 24% of respondents said "language issues", while 6% said it was cultural issues, however the overwhelming majority &70%, n=299) said it was a combination of both cultural and language issues. Given this response, it is doubtful whether relying on AI alone would resolve both issues.

5. Discussion

General Practice Support Professionals (GPSPs) in the Netherlands play a vital role in delivering accessible, preventive, and psychosocial care. Nearly half (49%) said they work with patients with limited Dutch proficiency weekly, and almost 90% do so at least monthly. This requires clear, culturally appropriate communication to elicit accurate histories and provide effective support.

GPSPs are able to spend more time with patients than a GP might be able to do and this enhances both trust and their ability to provide consistent person-centred care. The fact that GPSPs provide personalised care is also reflected in their choice of communication strategies to suit the person's needs.

Survey respondents reported systemic and practical barriers to communication. Most supported patients with somatic conditions such as cardiovascular disease, diabetes, and hypertension. While many preferred professional interpreters (on-site or remote), in practice they often relied on family members or apps like Google Translate and SayHi. These tools offer convenience and a sense of agency but raise concerns about accuracy and patient safety. Research confirms that apps cannot replace human interpreters in healthcare (Ortega et al., 2025; Hwang et al. 2022; Panayiotou et al. 2019) and that further research is needed. The authors suggest that further research should focus on assessing the outcomes of using such application on both eliciting a patient's history or providing culturally and linguistically appropriate advice.

Some previous studies were based on small samples (e.g. Estrada 2014; Piacentini et al. 2019; Van den Muijsenbergh et al. 2014) while the current survey included over 400 participants, strengthening reliability and generalizability.

The main findings can be summarised as follows: Firstly, GPSPs need more training, tools, and culturally adapted health education materials to improve intercultural communication with Limited Dutch Proficient patients. They also need easier access to an interpreter when needed and the new 2025 guidelines developed in the Netherlands (Patientenfederatie 2025) provide some recommendations in this regard. In practice, translation apps are widely used despite uncertainty about message accuracy.

5.1 Recommendations

There should be improved access to professional interpreters and services should be subsidised to reduce reliance on untrained interpreters. Interpreters working in the healthcare setting should be health literate with an excellent foundational understanding of anatomy, physiology and pathology as well as the healthcare system (Crezee, Eser and Karakaş 2022). They should also be assessed in their language pair.

National standards for communication with linguistically diverse patients have now been developed and these include remote interpreting guidelines. The 2025 guidelines recently published in the Netherlands provide a good starting point for discussion in other countries.

All health professionals and clinicians should be trained on the safe, effective use of digital tools and how to integrate AI translation with safeguards for privacy and accuracy.

The health authorities should invest in audiovisual and multilingual resources to complement verbal communication, especially in culturally diverse settings. Audiovisual resources may be preferred where patients are illiterate, low literate and have very limited health literacy. Community Translation to provide equal access to health, legal and other services has not received the attention or the funding (de Maesschalck 2011; Gonzalez, Stachowiak Szymczak, and Amanatidou 2023; Taibi and Ozolins 2016; Taibi 2024) it deserves in the Netherlands and the same will be true for other coun-tries. The authors recommend that health authorities adapt the guidelines for Community Translation developed by AUSIT and FECCA (AUSIT and FEC-CA 2022) in the Australian context, where there is an emphasis on the use of plain language, and involvement of representatives of the target the readers of communications to ensure that translations are culturally appropriate and acceptable. The authors also recommend that health authorities invest in cultural competence training and trauma-informed care approaches when working with potentially traumatised patients.

5.2 Implications

AI translation tools face limitations for languages with small digital footprints (e.g., Somali, Oromo) and cannot address cultural nuances or health literacy gaps. Community health workers and patient navigators from similar backgrounds can improve trust and outcomes, however training and supervision of such navigators are essential (Crezee & Roat 2019; Crezee & Tupou Gordon 2019). Where care is transferred to health professionals who speak the same language as the patients, it is vital that their actual proficiency is assessed and especially their ability to communicate sometimes delicate and sensitive health information in an acceptable and culturally appropriate manner.

5.3 Conclusion

So should communication in primary care settings involve human interpreters or bots? The findings relating to respondents' role perceptions and the use of translation apps reminded us of a question that we have been asking ourselves in teaching and research: What is it that human interpreters contribute to health communication in this age of invasive use of AI and other digital translation tools? The analysis of the General Practice Support Professionals (GPSPs)' role perceptions revealed several key words, including first and foremost 'trust', '(continued) care', 'support', 'attention', and 'guidance'. Humans can provide these but bots cannot provide the human touch, which is so vital in complex health professional-client interactions. GPSPs are trusted providers who deliver person-centred care. While digital tools offer convenience, they cannot replace the human touch essential for trust, continuity, and culturally sensitive communication. Future research should explore how human interpreters and AI can complement each other without compromising care quality.

References

American Psychological Association. (n.d.). *Descriptive statistics*. In *APA Dictionary of Psychology*. https://dictionary.apa.org/descriptive-statistics

Australian Institute of Interpreters and Translators (AUSIT), and Federation of Ethnic Communities' Councils of Australia (FECCA). 2022. *Recommended Protocols for the Translation of Community Communications*. March 2022. https://ausit.org/wp-content/uploads/2024/03/AUSIT-FECCA-Recommended-Protocols-for-the-Translation-of-Community-Communications_042023.pdf

Braun, Virginia, and Victoria Clarke. 2006. "Using Thematic Analysis in Psychology." *Qualitative Research in Psychology* 3 (2): 77–101. https://doi.org/10.1191/1478088706qp063oa.

Braun, Virginia, and Victoria Clarke. 2021. *Thematic Analysis: A Practical Guide*. London: SAGE Publications.

Braun, Virginia, and Victoria Clarke. 2022. "Conceptual and Design Thinking for Thematic Analysis." *Qualitative Psychology* 9 (1): 3–26. https://doi.org/10.1037/qup0000196.

Beëdigd Vertaalbureau. (n.d.). *How do you become a sworn translator?* https://www.beedigdvertaalbureau.nl/en/how-do-you-become-a-sworn-translator/

Bischoff, A., Perneger, T. V., Bovier, P. A., Loutan, L., & Stalder, H. (2003). Improving communication between physicians and patients who speak a foreign language. *British Journal of General Practice*, *53*(492), 541–546. https://bjgp.org/content/53/492/541

Business.gov.nl. (n.d.). *Working as a translator or interpreter in the Netherlands*. https://business.gov.nl/starting-your-business/permits-and-licences/working-as-a-translator-or-interpreter-in-the-netherlands/

Care to Translate. (2023, March 2). 5 reasons not to use relatives as interpreters. https://www.caretotranslate.com/news/5-reasons-not-to-use-relatives-as-interpreters (CBS)

Centraal Bureau voor de Statistiek. 2022a. "How Many People Immigrate to the Netherlands?" *Asylum, Migration and Integration* dossier. Last modified 2023. https://www.cbs.nl/en-gb/dossier/asylum-migration-and-integration/how-many-people-immigrate-to-the-netherlands-. [cbs.nl]

Centraal Bureau voor de Statistiek. 2022b. "Where Were People in the Netherlands Born? – The Netherlands in Numbers 2022." *Longreads CBS*. https://longreads.cbs.nl/the-netherlands-in-numbers-2022/where-were-people-in-the-netherlands-born/.

Centraal Bureau voor de Statistiek. 2023. "Over 40 Percent More Asylum Applications in 2022." *CBS News*, January 30, 2023. https://www.cbs.nl/en-gb/news/2023/05/over-40-percent-more-asylum-applications-in-2022. [cbs.nl]

Çinar, Rabia, Mieke de Klein, José Renkens, Reinier Akkermans, Mursal Latify, Bart Walewijn, Maria van den Muijsenbergh, and Tessa van Loenen. 2025. "Personcentred Integrated Primary Care for Refugees: A MixedMethods, Stepped Wedge Design Study to Assess the Impact." *Primary Health Care Research & Development* 26 (e17): 1–11. https://doi.org/10.1017/S1463423625000167

Cotret, François R. de, Christine Brisset, and Yvan Leanza. 2021. "A Typology of Healthcare Interpreter Positionings: When 'Neutral' Means 'Proactive.'" *Interpreting* 23 (1): 103–26. https://doi.org/10.1075/intp.00052.cot.

Crezee, Ineke H. M., Oktay Eser, and Fatih Karakas. 2022. *Introduction to Healthcare for Turkish-speaking Interpreters and Translators*. Amsterdam: John Benjamins Publishing Company. https://doi.org/10.1075/z.241

Crezee, Ineke H. M., and Cynthia E. Roat. 2019. "Bilingual Patient Navigator or Healthcare Interpreter: What's the Difference and Why Does It Matter?" *Cogent Medical: Public Health & Primary Care*, February 15. https://doi.org/10.1080/2331205X.2019.1582576 [tandfonline.com]

Crezee, Ineke H. M., and Mele Tupou Gordon. 2019. "CrossCultural and CrossLinguistic Access to the Healthcare System: Case Studies from Seattle and Auckland." In *Multicultural Health Translation, Interpreting and Communication*,

edited by Meng Ji, Mustapha Taibi, and Ineke H. M. Crezee, 22–? [Chapter 1]. London: Routledge. https://doi.org/10.4324/97813510003901 [taylorfrancis.com], [taylorfrancis.com]

Crezee, Ineke H. M., and Hoy Neng Wong Soon. 2023. "Speak My Language!: The Important Role of Community Translation in the Promotion of Health Literacy." In *Community Translation: Research and Practice*, edited by Erika Gonzalez, Katarzyna Stachowiak Szymczak, and Despina Amanatidou, 101–141. 1st ed. London: Routledge. https://doi.org/10.4324/9781003247333-6.

Dedding, Christine, Roesja Van Doorn, Lex Winkler, and Ria Reis. "How will e-health affect patient participation in the clinic? A review of e-health studies and the current evidence for changes in the relationship between medical professionals and patients." *Social science & medicine* 72, no. 1 (2011): 49-53. https://doi.org/10.1016/j.socscimed.2010.10.017

Estrada, Rosa D. 2014. *An Analysis of Interpreter Mediated Healthcare Interactions*. PhD diss., University of South Carolina. Scholar Commons. https://scholarcommons.sc.edu/etd/2616/.

Evenden, Rebecca, Navtej Singh, Shanthi Sornalingam, Sharon Harrington, and Priyamvada Paudyal. 2022. "Language Barriers for Primary Care Access in Europe: A Systematic Review." *European Journal of Public Health* 32 (Supplement 3): ckac129.724. https://doi.org/10.1093/eurpub/ckac129.724 [academic.oup.com]

Flores, Glenn. 2005. "The Impact of Medical Interpreter Services on the Quality of Health Care: A Systematic Review." *Medical Care Research and Review* 62 (3): 255–299. https://doi.org/10.1177/1077558705275416.

Forta Opleidingen. n.d. "POH-GGZ Opleiding." Accessed December 19, 2025. https://www.fortaopleidingen.nl.

Gao, Yunduan. 2021. *Exploring Healthcare Interpreting for Chinese Immigrants in Aotearoa New Zealand: Current Practices and Stakeholder Perspectives*. PhD diss., University of Auckland. https://hdl.handle.net/2292/61258.

Gentile, Paola. 2017. "Political Ideology and the De-professionalisation of Public Service Interpreting: The Netherlands and the United Kingdom as Case Studies." In *Ideology, Ethics and Policy Development in Public Service Interpreting and Translation*, edited by Carmen Valero-Garcés and Rebecca Tipton, 63–83. Bristol: Multilingual Matters.

Gerritsen, Annette A. M., Inge Bramsen, Walter Devillé, Loes H. M. van Willigen, Johannes E. Hovens, and Henk M. van der Ploeg. 2006a. "Use of Health Care Services by Afghan, Iranian, and Somali Refugees and Asylum Seekers Living in the Netherlands." *European Journal of Public Health* 16 (4): 394–399. https://doi.org/10.1093/eurpub/ckl046.

Gerritsen, A. A. M., I. Bramsen, W. Devillé, L. H. M. van Willigen, J. E. Hovens, and H. M. van der Ploeg. 2006b. "Physical and Mental Health of Afghan, Iranian and Somali Asylum Seekers and Refugees Living in the Netherlands." *Social Psychiatry and Psychiatric Epidemiology* 41 (1): 18–26. https://doi.org/10.1007/s00127-005-0003-5.

Gonzalez, Erika, Katarzyna Stachowiak Szymczak, and Despina Amanatidou, eds. 2023. *Community Translation: Research and Practice*. London: Routledge.

Greenhalgh, Trisha, Nikki Robb, and Graham Scambler. 2006. "Communicative and Strategic Action in Interpreted Consultations in Primary Health Care: A Habermasian Perspective." *Social Science & Medicine* 63 (5): 1170–81. https://doi.org/10.1016/j.socscimed.2006.03.033.

Gutman, Colleen K., Christina R. Rojas, Lauren Waidner, et al. 2025. "Strategies to Increase Professional Interpreting in Clinical Settings: A Systematic Review." *JAMA Network Open* 8 (7): e2521492. https://doi.org/10.1001/jamanetworkopen.2025.21492.

Hsieh, Elaine. 2015. "Not Just 'Getting By': Factors Influencing Providers' Choice of Interpreters." *Journal of General Internal Medicine* 30 (1): 75–82. https://doi.org/10.1007/s11606-014-3066-8.

Hwang, K., S. Williams, E. Zucchi, T. W. H. Chong, M. Mascitti-Meuter, D. LoGiudice, A. M. Y. Goh, A. Panayiotou, and F. Batchelor. 2022. "Testing the Use of Translation Apps to Overcome Everyday Healthcare Communication in Australian Aged-Care Hospital Wards—An Exploratory Study." *Nursing Open* 9 (2): 578–585. https://doi.org/10.1002/nop2.1099.

IND (Immigratie- en Naturalisatiedienst). 2025. "Asielinstroom per Maand." Accessed December 19, 2025. https://ind.nl.

Ingleby, David. "Acquiring health literacy as a moral task." *International journal of migration, health and social care* 8, no. 1 (2012): 22-31.

Inholland Hogeschool. (n.d.). *Post-hbo opleiding Praktijkondersteuner huisartsenzorg (POH-S)*. https://www.inholland.nl

Kokanovic, Renata, Christopher Dowrick, Emma Butler, Helen Herrman, and Jane Gunn. 2010. "Lay Accounts of Depression amongst Anglo-Australian and Immigrant Women." *Social Science & Medicine* 71 (6): 1079–1086. https://doi.org/10.1016/j.socscimed.2010.06.016.

Leanza, Y., Boivin, I., & Rosenberg, E. (2013). The patient's Lifeworld: Building meaningful clinical encounters between patients, physicians and interpreters. *Communication & Medicine*, *10*(1), Article 1.

Pilar Ortega, Alyssia Miller De Rutté, and Mónica Vela. 2025. "Language Equity in Health Technology for Patients with Non–English Language Preference." JAMA Network Open 8 (2): e2457424. https://doi.org/10.1001/jamanetworkopen.2024.57424.

Panayiotou, Andriani, Anne Gardner, Sarah Williams, Elena Zucchi, Maria Mascitti-Meuter, Amanda M. Y. Goh, Esther You, Tze W. H. Chong, David Logiudice, Xia Lin, Bianca Haralambous, and Felicity Batchelor. 2019. "Language Translation Apps in Health Care Settings: Expert Opinion." *JMIR mHealth and uHealth* 7 (4): e11316. https://doi.org/10.2196/11316.

Patiëntenfederatie Nederland. 2025. *Generieke richtlijn: Omgaan met taalbarrières in de zorg en het sociaal domein*. (Generic Guidelines: Addressing language barriers in the health and social setting). Published October 9, 2025. https://www.patientenfederatie.nl/professionals/onderwerpen/taalbarrieres-in-de-zorg/taalbarrieres-in-de-zorg.

Piacentini, Tania, Catherine O'Donnell, Alison Phipps, Ian Jackson, and Nuala Stack. 2019. "Moving beyond the 'Language Problem': Developing an Understanding of the Intersections of Health, Language and Immigration Status in Interpret-

er-Mediated Health Encounters." *Language and Intercultural Communication* 19 (3): 256–71. https://doi.org/10.1080/14708477.2018.1486409.

Reproductive Cancer Relief Guide. (2025, August 23). *How are cancer terms translated across cultures?* [Video]. YouTube. https://www.youtube.com/watch?v=tGn5reNF3LE

RINO Groep. (n.d.). *Opleiding tot praktijkondersteuner GGZ (POH-GGZ)*. https://www.rinogroep.nl

Robben, Paul, Roland Bal, and Anne de Bont. 2012. "Patienten Betrekken bij Toezicht: Verantwoording door Persoonlijke Verhalen [Involving Patients in Supervision: Accountability through Personal Stories]." *Tijdschrift voor Gezondheidswetenschappen* 90 (6): 403–409. https://doi.org/10.1007/s12508-012-0095-z.

Sawrikar, Priya, and Ilan Katz. 2009. "How Useful Is the Term 'Culturally and Linguistically Diverse' (CALD) in Australian Research, Practice, and Policy Discourse?" *Proceedings of the Australian Social Policy Conference*, Sydney, Australia. University of New South Wales.

Seeleman, Conny, Maria-Louise Essink-Bot, Karien Stronks, and David Ingleby. 2015. "How Should Health Service Organizations Respond to Diversity? A Content Analysis of Six Approaches." *BMC Health Services Research* 15 (1): 510. https://doi.org/10.1186/s12913-015-1167-7.

Sheldon, Tony. (2011, June 27). *Protests mount to cuts in translation services in the Netherlands*. BMJ, 342, d4049. https://doi.org/10.1136/bmj.d4049

Speroff, Yaffa. 2023. "Professional Medical Interpreters, Not Family Members." *EthnoMed*. January 25, 2023. https://ethnomed.org/resource/professional-medical-interpreters-not-family-members/.

Suphanchaimat, Rapeepong, Kanang Kantamaturapoj, Weerasak Putthasri, and Phusit Prakongsai. "Challenges in the provision of healthcare services for migrants: a systematic review through providers' lens." *BMC health services research* 15, no. 1 (2015): 390.

Taibi, Mustapha. 2024. *Translation and Community*. 1st ed. London: Routledge. DOI:10.4324/9781003367741 [taylorfrancis.com]

Taibi, Mustapha, and Uldis Ozolins. 2016. *Community Translation*. Bloomsbury Advances in Translation. New York: Bloomsbury Academic.

Taibi, Mustapha, Ahmed Kenawy, and Maria Antoniou. 2025. "Healthcare Translations for Arabic Speakers in Australia: Impact of Language Variety and Dissemination Medium." *Translation and Interpreting Studies* 20 (1): 105–128. https://doi.org/10.1075/tis.24022.tai.

Truman, Jennifer, Patricia Raine, and Jane Brophy. 2009. "Using Interpreters with Patients from Refugee Backgrounds in General Practice." *Health & Social Care in the Community* 17 (6): 610–618. https://doi.org/10.1111/j.1365-2524.2009.00862.x.

Valdez, S., Guerberof Arenas, A., & Ligtenberg, K. (2023). Migrant communities living in the Netherlands and their use of MT in healthcare settings. *In Proceedings of the 24th Annual Conference of the European Association for Machine Translation* (pp. 325–334). European Association for Machine Translation. https://aclanthology.org/2023.eamt-1.32/

Van den Muijsenbergh, Maria, Jasmina Ujcic-Voortman, and Jeanine Suurmond. 2014. "Language Barriers in Access to Health Care in the Netherlands." *Euro-*

pean Journal of Public Health 24 (5): 669–670. https://doi.org/10.1093/eurpub/cku084.

Van den Muijsenbergh, Maria, Ellen van Weel-Baumgarten, Nicola Burns, Claire O'Donnell, Frances Mair, and Wolfgang Spiegel. 2014. "Communication in Cross-Cultural Consultations in Primary Care in Europe: The Case for Improvement." *Primary Health Care Research & Development* 15 (2): 122-133. https://doi.org /10.1017/S1463423613000157

Van der Jagt-Blokland, Jorin, Tom Versteege, and Mirrian Hilbink. 2023**.** "Wat kun je doen bij vluchtelingen met traumaklachten?" *Huisarts en Wetenschap* 66: 52–55. https://doi.org/10.1007/s12445-023-2402-9 [link.springer.com]

Van Loenen, Tessa, Maria Van Den Muijsenbergh, Marrigje Hofmeester, Christopher Dowrick, Nadja Van Ginneken, Enkeleint Aggelos Mechili, Agapi Angelaki et al. "Primary care for refugees and newly arrived migrants in Europe: a qualitative study on health needs, barriers and wishes." *The European Journal of Public Health* 28, no. 1 (2018): 82-87.

Whitaker, Katriina L., Demi Krystallidou, Emily D. Williams, Georgia Black, Cecilia VindrolaPadros, Sabine Braun, and Paramjit Gill. 2022. "Addressing Language as a Barrier to Healthcare Access and Quality." *British Journal of General Practice* 72 (714): 4–5. https://doi.org/10.3399/BJGP22X718013

Zendedel, Rena, Barbara C. Schouten, Julia CM van Weert, and Bas van den Putte. "Informal interpreting in general practice: Comparing the perspectives of general practitioners, migrant patients and family interpreters." *Patient education and counseling* 99, no. 6 (2016): 981-987.

World Health Organization. 2024. "Health Literacy." *Fact Sheet*, 5 August 2024. Accessed December 2025. https://www.who.int/news-room/fact-sheets/detail/health-literacy

Appendix*:* Survey questions

1. **How long have you worked as a Practice Support Professional?**
   - Less than 5 years:
   - Between 5 and 10 years:
   - Between 11 and 15 years:
   - More than 15 years:
2. **How often do you work with patients who do not speak Dutch well?**
   - Every week:
   - Every two weeks:
   - Every month:
   - Once every six months:
   - Less than once every six months:
3. **If you worked with non-Dutch speaking background patients, were they:**
   - non-Dutch speakers with a migration background

- non-Dutch speakers with a refugee background
- asylum seekers
- or did you not usually work with non-Dutch speakers

4. In which area of care do you work with these patients?

- Somatic care (physical health):
- Mainly older adults
- Mental health (GGZ):
- Combination of mental and physical health:

5. How do you communicate with these patients? (multiple answers possible)

- Professional interpreter on site:
- Professional interpreter via video/phone:
- Own interpreter (family/friend):
- Google Translate:
- Pictures and gestures:

6. Please indicate your level of satisfaction with the following communication methods

6a. Professional interpreter on site:

- Very satisfied:
- Quite satisfied:
- Fairly satisfied:
- Slightly dissatisfied:
- Not satisfied at all:
- Not applicable:

6b. Professional interpreter via video/phone:

- Very satisfied:
- Quite satisfied:
- Fairly satisfied:
- Slightly dissatisfied:
- Not satisfied at all:
- Not applicable:

6c. Own interpreter (family/friend):

- Very satisfied:
- Quite satisfied:
- Fairly satisfied:
- Slightly dissatisfied:
- Not satisfied at all:
- Not applicable:

6.d. Google Translate:

- Very satisfied:
- Quite satisfied:
- Fairly satisfied:
- Slightly dissatisfied:

- Not satisfied at all:
- Not applicable:

Pictures and gestures:

- Very satisfied:
- Quite satisfied:
- Fairly satisfied:
- Slightly dissatisfied:
- Not satisfied at all:
- Not applicable:

What do you feel is the biggest issue when communicating with patients who do not speak Dutch well?

- Language issues:
- Cultural issues:
- Both cultural and language issues:

Professional interpreter on site:

- Very satisfied: 4, n=16
- Quite satisfied: 3, n=13
- Fairly satisfied: 4, n=18
- Slightly dissatisfied: 0
- Not satisfied at all: 0
- Not applicable: 88%, n=365

Professional interpreter via video/phone:

- Very satisfied:
- Quite satisfied:
- Fairly satisfied:
- Slightly dissatisfied:
- Not satisfied at all:
- Not applicable:

Own interpreter (family/friend):

- Very satisfied:
- Quite satisfied:
- Fairly satisfied:
- Slightly dissatisfied:
- Not satisfied at all:
- Not applicable:

Google Translate:

- Very satisfied:
- Quite satisfied:
- Fairly satisfied:
- Slightly dissatisfied:
- Not satisfied at all:
- Not applicable:

Pictures and gestures:

- Very satisfied:
- Quite satisfied:
- Fairly satisfied:
- Slightly dissatisfied:
- Not satisfied at all:
- Not applicable:

What do you feel is the biggest issue when communicating with patients who do not speak Dutch well?

- Language issues: 24%, n=104
- Cultural issues: 6%, n=17
- Both cultural and language issues: 70%, n=299

Total respondents: 412