



Contents lists available at ScienceDirect

## Patient Education and Counseling

journal homepage: [www.elsevier.com/locate/pateducou](http://www.elsevier.com/locate/pateducou)

## Discussion

## Mitigating language and cultural barriers in healthcare communication: Toward a holistic approach



Barbara C. Schouten<sup>a,\*</sup>, Antoon Cox<sup>b</sup>, Gözde Duran<sup>c</sup>, Koen Kerremans<sup>d</sup>, Leyla Köseoğlu Banning<sup>e</sup>, Ali Lahdidioui<sup>f</sup>, Maria van den Muijsenbergh<sup>g,h</sup>, Sanne Schinkel<sup>i</sup>, Hande Sungur<sup>j</sup>, Jeanine Suurmond<sup>k</sup>, Rena Zendedel<sup>l</sup>, Demi Krystallidou<sup>m</sup>

<sup>a</sup> Amsterdam School of Communication Research/ASCoR, University of Amsterdam, the Netherlands

<sup>b</sup> Interpreting Studies, Antwerp Campus, KU, Leuven, Belgium

<sup>c</sup> Expertise Centre Dementia for Professionals, University College Windesheim, the Netherlands

<sup>d</sup> Department of Linguistics & Literary Studies, Free University Brussels, Belgium

<sup>e</sup> Care Interest Inclusive [Zorgbelang Inclusief] Rotterdam, the Netherlands

<sup>f</sup> Dutch Association Moroccan Physicians [AMAN], the Netherlands

<sup>g</sup> Radboud University Medical Centre, Department of Primary and Community Care Health Disparities Group, Nijmegen, the Netherlands

<sup>h</sup> Pharos, Centre of Expertise on Health Disparities, Utrecht, the Netherlands

<sup>i</sup> Amsterdam School of Communication Research/ASCoR, University of Amsterdam, the Netherlands

<sup>j</sup> Amsterdam School of Communication Research/ASCoR, University of Amsterdam, the Netherlands

<sup>k</sup> Department of Social Medicine, Amsterdam University Medical Centre, the Netherlands

<sup>l</sup> Department of Languages, Literature and Communication, Utrecht University, the Netherlands

<sup>m</sup> Faculty of Arts, Antwerp Campus, KU, Leuven, Belgium

## ARTICLE INFO

## Article history:

Received 30 August 2019

Received in revised form 28 April 2020

Accepted 1 May 2020

## Keywords:

Migrant patients

Provider-patient communication

Language barrier

Patient participation

e-Health

Interpreters

Undergraduate medical education

Culture

## ABSTRACT

Due to ongoing globalization and migration waves, healthcare providers are increasingly caring for patients from diverse cultural and/or ethnic minority backgrounds. Adequate health communication with migrants and ethnic minorities is often more difficult to establish compared to people belonging to the majority groups of a given society, because of a combination of language and cultural barriers. To address this topic, in December 2018 a symposium was organized—under the auspices of the Amsterdam Center for Health Communication—during which speakers from both academia and professional practice discussed the current state-of-the-art and brought forward innovative solutions to improve intercultural communication in healthcare. Main questions that were discussed during this symposium included: “How can language barriers in intercultural health communication be mitigated?” and “Which innovations can contribute to improving intercultural health communication?” In this paper, we discuss some answers to these questions and propose that in order to enhance intercultural communication and healthcare for migrant and ethnic minority patients, a more holistic approach to studying when, how, and for what purposes (a combination of) communication strategies should be utilized in mitigating both language and cultural barriers to decrease health disparities and improve health care for migrant and ethnic minority patients.

© 2020 Published by Elsevier B.V.

\* Corresponding author.

E-mail addresses: [b.c.schouten@uva.nl](mailto:b.c.schouten@uva.nl) (B.C. Schouten), [antoon.cox@kuleuven.be](mailto:antoon.cox@kuleuven.be) (A. Cox), [g.duran@windesheim.nl](mailto:g.duran@windesheim.nl) (G. Duran), [koen.kerremans@vub.be](mailto:koen.kerremans@vub.be) (K. Kerremans), [LeylaKoseoglu@zorgbelanginclusief.nl](mailto:LeylaKoseoglu@zorgbelanginclusief.nl) ( info@amanonline.nl (A. Lahdidioui), [M.vandenMuijsenbergh@Pharos.nl](mailto:M.vandenMuijsenbergh@Pharos.nl) (M. van den Muijsenbergh), [s.schinkel1@uva.nl](mailto:s.schinkel1@uva.nl) (S. Schinkel), [h.sungur@uva.nl](mailto:h.sungur@uva.nl) (H. Sungur), [j.suurmond@amsterdamumc.nl](mailto:j.suurmond@amsterdamumc.nl) (J. Suurmond), [r.zendedel@uu.nl](mailto:r.zendedel@uu.nl) (R. Zendedel), [demi.krystallidou@kuleuven.be](mailto:demi.krystallidou@kuleuven.be) (D. Krystallidou).

## 1. Introduction

In his *Philosophical Investigations* Wittgenstein made the remark that “If a lion could speak, we would not understand him.” [1, p. 293], implying that even if a lion could communicate with us in a shared language, we would not comprehend what he is saying because his world is too unfamiliar to ours to find sufficient common ground for mutual understanding. That is, because we cannot sufficiently recognize ourselves in the values, perceptions and experiences of Wittgenstein’s lion, merely sharing a common

language will be insufficient to derive adequate meaning from each other's words. In many ways, his remark is an apt metaphor for the challenges healthcare providers and migrant and ethnic minority patients face when they encounter each other. Although bridging the language barrier is a prerequisite to be able to identify and address culture-related barriers to adequate intercultural health communication, tackling the language barrier alone is insufficient to ensure mutual understanding and good quality health communication.

To improve intercultural health communication and ultimately quality of care for migrant and ethnic minority patients, there has been a steady increase in the development of culturally sensitive interventions and trainings. However, many interventions suffer from a too reductionistic approach, for instance by focusing on either mitigating the language barrier or the cultural barrier or by focusing on either training interpreters or healthcare providers, thereby neglecting the complexity of the issue and yielding suboptimal results. We, a group of researchers and practitioners working in the field of intercultural health communication, propose that taking a more holistic approach in studying when, how, and for what purposes (a combination of) communication strategies could be utilized in interventions aiming to mitigate language and cultural barriers in healthcare, is needed to improve intercultural health communication and health outcomes for migrant and ethnic minority patients with low language proficiency in the country's dominant language.

To further explore how to enhance the field of intercultural health communication in research and practice, in December 2018 a symposium was organized at the University of Amsterdam—under the auspices of the Amsterdam Center for Health Communication (ACHC)—during which speakers from both academia and professional practice discussed the current state-of-the-art and brought forward examples of innovative solutions to improve intercultural health communication. The symposium was attended by around 60 people who were invited by means of an existing mailing-list of ACHC. The first author who chaired the symposium took notes during the symposium, collected all speaker presentations and discussed the results with all co-authors to ensure a valid representation of research findings. Main questions that were discussed during the symposium included: “How can language barriers in intercultural health communication be mitigated?” and “Which innovations can contribute to improving intercultural health communication?” Below, we will discuss lessons learned that emerged during this symposium and propose some ways forward to enhance intercultural health communication.

## **2. When, how, and for what purposes can (a combination of) communication strategies be utilized in mitigating language barriers in intercultural health communication?**

Although it is difficult to provide an accurate estimate of the number of medical encounters that is seriously hampered because of a language barrier, as this varies between countries, patient groups and medical settings, the international literature has frequently reported language discordance between patients and healthcare providers to be a serious impediment to the health communication process and its outcomes. Patients who receive language-discordant care ask fewer questions, have lower understanding of their illness, are less adherent to treatment, are less satisfied with their providers and are more likely to miss medical appointments compared to patients who receive language-concordant care [2]. To bridge the language barrier various communication strategies can be employed, among which the use of different types of interpreters, digital translation tools and multilingual eHealth applications. Each of these strategies has the

potential to enhance certain aspects of the intercultural health communication process, and combined, might create complementary effects as each strategy can compensate for the omissions and/or drawbacks of another.

### *2.1. Working with interpreters to mitigate language barriers*

There is an ongoing and fierce debate on whether one should make use of professional or informal interpreters to mitigate the language barrier in healthcare. Although many countries regard the use of professional interpreters as the gold standard, the use of informal interpreters, such as patients' family members or bilingual healthcare staff, is common practice in healthcare throughout the world [3–5], which can be attributed to a host of factors, ranging from system-level factors (e.g. lack of availability of professional interpreters), to individual factors (e.g. patients' and providers' preferences for informal interpreters) [6–9]. Research has shown that the quality of the communication process is often severely compromised when mediated by informal interpreters; however, patients often prefer to bring family members to interpret for them during the medical consultation because they place more trust in them than in their professional counterparts [10].

Although informal interpreters may lack the competencies to adequately interpret in healthcare interactions, working with professional interpreters comes with its own challenges, partly because of the simplistic notions of what professional interpreting in healthcare entails, namely the idea of the professional interpreter being a neutral linguistic conduit merely translating words from one language into another [11]. This conceptualization is not only untenable but also quite problematic because one of the main problems in the communication process with migrant and ethnic minority patients revolves around the lack of affective communication [12], which might require deviating from the neutrality principle professional interpreters have to adhere to. Indeed, results of an evidence-based educational intervention on empathic communication for medical- and interpreting students [13] that emerged from the analysis of authentic interpreter-mediated consultations and video stimulated recall interviews with patients, interpreters and providers, suggest that interpreters require better skills to detect and assess patients' empathic opportunities and to render them correctly and appropriately as intended by the patient. Furthermore, providers require better skills to adequately attend to the interactional complexity of interpreter-mediated communication and the pitfalls that might arise from inferencing, understanding and rendering one's utterances into another language by a third participant.

Hence, instead of continuing the simplistic debate about whether to work with informal or professional interpreters a more fruitful question to raise is when, how, and for what purpose each type of interpreter is most suitable to bridge the language barrier in healthcare. In recent years, guidelines and decision toolkits have been developed to support providers in their decision-making process regarding which type of interpreter to use, taking the stance that this decision should be made on a case-by-case basis [14]. Embedded in these guidelines are various topics that one should take into account in making this decision, such as the complexity and nature of the patient's health problem, patients' own preferences and the nature of the relation between patient and informal interpreter. Furthermore, in complex healthcare situations the best way to bridge the language barrier might be to have both professional and informal interpreter present simultaneously, because each brings their unique contribution to the medical encounter and care process. For instance, patients' family members can emotionally support the patient, advocate on their behalf and provide information

about the patient that is relevant to their treatment, while professional interpreters have the skills for accurate interpretation and communication in a coordinated manner with each other, thereby enhancing the dynamic process of the co-construction of meaning between patients, interpreters and providers.

### 2.2. Working with technology to mitigate language barriers

In addition to working with interpreters, digital translation tools and multilingual eHealth applications have been developed to mitigate the language barrier in intercultural health communication. One advantage of these innovations is that they can (also) be used outside the consultation room, for instance when preparing for the consultation or when educating patients about their treatment after the consultation. Because of their audiovisual possibilities, such innovations are particularly useful for migrant patients who are illiterate in their native language, and may support them in taking a more active role during medical consultations. For instance, Sungur et al. (unpublished data) developed a multilingual oncological eHealth application for elderly migrant cancer patients, consisting of audiovisual question prompt lists and culturally sensitive patient narratives to educate patients about cancer-related topics in their mother tongue. Findings showed that both patients and providers perceived the patients who made use of the application to be more active during the consultation than usual, and a majority of topics selected by patients in the question prompt lists before the consultation was discussed during their consultation, thus stimulating patient participation.

The added value of multimedia tools not only lies in their potential to educate and stimulate patients; they might also achieve positive affective effects. For example, Cox and Kerremans [15] developed multilingual patient education video animations, tailored to the socio-cultural, psychological and sociolinguistic specificities of the vaccination procedure during the intake trajectory for Belgian asylum seekers. They applied sociolinguistic and social-psychological informed multimodal ethnographic observations and ethnographic niche sourcing workshops to create multilingual content in collaboration with (former) asylum seekers. Results indicated that, next to informing them about the vaccination procedure, the animations had a reassuring effect on the asylum seekers.

### 2.3. Concluding remarks on mitigating the language barrier

A variety of communication strategies can be used to mitigate the language barrier in intercultural health communication and improve quality of care. To advance our understanding of when, how and for what purposes such strategies are most effective, future research is needed on the effects of combined solutions including interpreters, eHealth applications and multimodal digital tools (blended care) on the communication process and patients' health outcomes. Future studies should include research into barriers and facilitators to technology acceptance among ethnic minority and migrant patients to enable adequate design and implementation in practice, because low digital health literacy might seriously hamper its uptake. For instance, in a study by Yilmaz et al. [16] it was found that although older migrant patients had positive attitudes toward the use of eHealth applications, their user intentions were moderate because of perceived difficulties in use. Based on the results of such studies more effective interventions can be developed to mitigate the language barrier in healthcare for ethnic minority and migrant patients.

## 3. When, how, and for what purposes can (a combination of) communication strategies be utilized in mitigating cultural barriers in intercultural health communication?

Active patient participation and shared decision-making are considered crucial components of adequate health communication because they are positively associated with improved patient outcomes, such as better fulfillment of patients' information needs, better understanding, higher patient satisfaction and more adherence to treatment [17]. However, migrant and ethnic minority patients are often more passive during medical encounters; they ask fewer questions, take fewer initiatives and are less involved in the decision-making process compared to native-born patients. Research by Schinkel et al. [18] has indicated that a multitude of culture-related barriers hamper migrant patients' participation, among which cultural differences in communication styles with their providers whom they often perceive as overly instrumental, and differences in cultural values (e.g. high power distance) leading them to hold their providers responsible for medical decision-making. Although the guiding ethical principle of shared decision-making in medicine is individual self-determination [19], many ethnic minority and migrant patients come from collectivistic and high power distance cultures and want their healthcare providers to make the decisions for them and/or their families to make decisions with them or even by them [20]. In the latter case, mitigating cultural barriers in intercultural health communication requires a shift away from patient-centered to more family-centered communication and care.

### 3.1. Working with family members to mitigate the cultural barrier

One strategy to mitigate the cultural barrier is to actively engage patients' family members. In addition to managing the language barrier, they can make adequate treatment-related decisions that are tuned to the culture-based communication and treatment preferences of the patient. For instance, in a culturally sensitive intervention for dementia care, Dutch caregiving daughters with a migrant background collaborated with a professional care organization and researchers in order to improve care for their Turkish parents with dementia [21]. The intervention was based on action research and participatory co-creation design in which collaboration and equal contribution of all stakeholders were key elements, and has led to culturally sensitive nursing home care for the carers' parents.

### 3.2. Working with healthcare providers with similar backgrounds

A complimentary strategy is to rely on healthcare providers with the same linguistic and/or cultural background as their patients, thereby circumventing the need for interpreting and making use of the positive effects of linguistic and cultural concordance on health communication and outcomes. For instance, the Association of Dutch Moroccan Physicians in the Netherlands (AMAN) implements a variety of culturally sensitive interventions aiming to improve healthcare for the Moroccan-Dutch community by educating both healthcare providers and patients. In their annual campaign 'Diabetes and Ramadan' mosque visitors are educated by Moroccan-Dutch medical residents, paying special attention to the symptoms and complications of diabetes and advising them on how to attend to the needs of their body in order to prevent health complications during the fasting month of Ramadan. Hence, by organizing information meetings for patients and training healthcare providers on how to provide culturally sensitive healthcare to Moroccan-Dutch patients, culture-related barriers to adequate intercultural health communication can be mitigated.

### 3.3. Working with interpreters to mitigate cultural barriers

In healthcare settings with high communicative and emotional complexity the complementary use of professional interpreters next to family interpreters might also promote patient's relational autonomy [22] that is conducive to shared decision-making [23]. Professional interpreters can facilitate this by enabling the healthcare team to seek the patient's consent to disclose information and by ensuring an accurate interpretation during the exchange of information between the healthcare team and the patient/family member. Conversely, family interpreters can facilitate patient participation and shared decision-making by supporting the patient and by including their concerns into the doctor-patient conversation, in order to include the patient's autonomous agency from a relational point of view.

### 3.4. Concluding remarks on mitigating the cultural barrier

Including various stakeholders in the healthcare process, among which the patient's family members and healthcare providers with similar backgrounds as the patient, can be effective strategies to mitigate culture-related barriers to patient participation and shared decision-making and enhance the quality of intercultural healthcare. To advance our understanding of when, how and for what purposes including these various stakeholders, combined with the use of eHealth innovations and professional interpreters, is most effective in enhancing intercultural health communication and care, future research is needed about their combined effects on communication and patients' health-related outcomes. Based on the results of such studies, more effective trainings can be developed for healthcare providers and interpreters on how to adapt to the patient's socio-cultural contexts when, for instance, making shared decisions, and on how to adequately engage patients' family in the healthcare process.

## 4. Discussion

To enhance intercultural health communication and care for migrant and ethnic minority patients both the language and cultural barrier should be addressed simultaneously, by using a combination of communication strategies, depending on the specific purposes one strives to achieve in a certain healthcare situation. For instance, results of an intervention to promote medication adherence among low (health) literate migrant patients with comorbidity [24], that included both language lessons and culturally tailored patient education about proper medication use, showed that patients' language and health literacy skills improved, their self-esteem did increase and more trust between patients and providers had been established.

Notwithstanding the above recommendation, it should be noted that there are many barriers to the uptake of the proposed communication strategies in practice. For instance, despite the added value of working with ethnic minority providers to mitigate cultural barriers, they are still underrepresented in healthcare due to a manifold of reasons [25]. In the same vein, due to budget cuts in many Western countries it is often not feasible to hire professional interpreters, despite the fact that in the long-term, this might well increase costs because poor communication can lead to missed diagnoses and inadequate treatment in the long run [26]. As healthcare is a human right, the onus of responsibility to enable healthcare providers and others in the healthcare process to implement effective communication strategies first and foremost lies with (inter) national governmental bodies. Hence, to be able to achieve good quality healthcare communication with migrant and ethnic

minority patients by implementing the most effective combination of communication strategies, system-level interventions are needed to achieve changes on societal and policy levels.

## 5. Conclusion

Based on our current knowledge base it is safe to conclude that it is advisable to include all stakeholders in interventions aiming to improve intercultural health communication with ethnic minority and migrant patients without sufficient command of a country's dominant language, as this will generate an increased sense of ownership, which in turn favors the quality and usability of such interventions. As there is a dearth of research on combined effects and underlying mechanisms in mitigating both language and cultural barriers in healthcare, a more holistic approach is needed to investigate when, how, and for what purposes which combination of communication strategies should be utilized to bridge which language and culture-related barriers to adequate health communication.

## 6. Practice implications

As the level of migration has reached an unprecedented level worldwide with an estimated 272 million international migrants, healthcare providers are increasingly confronted with a linguistically and culturally diverse patient population in daily practice. Decisions regarding which communication strategies to use to mitigate language and cultural barriers in healthcare are currently often made ad hoc, and mainly driven by practical and financial reasons. To enhance the quality of decision-making, healthcare providers should receive better training to increase their awareness and skills regarding adequate decision-making on which communication strategies are most (cost-) effective to mitigate language and cultural barriers in healthcare. Only through continuous, evidence-based and coordinated efforts can we hope to foster more understanding of Wittgenstein's lion, decrease health disparities and improve health care for migrant and ethnic minority patients.

### Funding

None.

### Declaration of Competing Interest

None.

### References

- [1] L. Wittgenstein, *Filosofische Onderzoekingen [Philosophical Investigations]*, Boom, Meppel, 1976.
- [2] E.A. Jacobs, L.C. Diamond, *Providing Health Care in the Context of Language Barriers*, Multilingual Matters, Bristol, 2017.
- [3] Y. Schenker, E.J. Pérez-Stable, D. Nickleach, L.S. Karliner, Patterns of interpreter use for hospitalized patients with limited English proficiency, *J. Gen. Intern. Med.* 26 (2011) 712–717.
- [4] O. Papic, Z. Malak, E. Rosenberg, Survey on family physicians' perspectives on management of immigrant patients: attitudes, barriers, strategies and training needs, *Patient Educ. Couns.* 86 (2012) 205–209.
- [5] D. Ramirez, K.G. Engel, T.S. Tang, Language interpreter utilization in the emergency department setting: a clinical review, *J. Health Care Poor U.* 19 (2008) 352–362.
- [6] P. Hudelson, S. Vilpert, Overcoming language barriers with foreign-language speaking patients: a survey to investigate intra-hospital variation in attitudes and practices, *BMC Health Serv. Res.* 9 (2009) 187.
- [7] R. Zendedel, B.C. Schouten, J.C.M. van Weert, B. van den Putte, Informal interpreting in general practice: the migrant patient's voice, *Ethnic. Health* 23 (2018) 158–173.
- [8] A. Bisschoff, P. Hudelson, Communicating with foreign language-speaking patients: is access to professional interpreters enough? *J. Travel Med.* 17 (2010) 15–20.



- [9] A. Cox, R. Lázaro Gutiérrez, Interpreting in the emergency department: how context matters for practice, in: F.M. Federici (Ed.), *Mediating Emergencies and Conflicts*, Palgrave Macmillan, UK: London, 2016, pp. 33–58.
- [10] R. Zendedel, Bc Schouten, Jcm van Weert, B. van den Putte, Informal interpreting in general practice: are interpreters' roles related to perceived control, trust, and satisfaction? *Patient Educ. Couns.* 101 (2018) 1058–1065.
- [11] S. Li, J. Gerwing, D. Krystallidou, A. Rowlands, A. Cox, P. Pype, Interaction: a missing piece of the jigsaw in interpreter-mediated consultation models, *Patient Educ. Couns.* 100 (2017) 1769–1771.
- [12] Bc Schouten, L. Meeuwesen, Cultural differences in medical communication: a review of the literature, *Patient Educ. Couns.* 64 (2006) 21–34.
- [13] D. Krystallidou, H. Salaets, C. Wermuth, P. Pype, EmpathicCare4All. Study protocol for the development of an educational intervention for medical and interpreting students on empathic communication in interpreter-mediated medical consultations. A study based on the Medical Research Council (MRC) framework phases 0–2, *Int J.Educ.Res.* 92 (2018) 53–62.
- [14] B. Gray, J. Hilder, M. Stubbe, How to use interpreters in general practice: the development of a New Zealand toolkit, *J. Prim. Health Care* 4 (2015) 52–61.
- [15] A. Cox, K. Kerremans, R. Temmerman, Niche sourcing and transexplanations for the enhancement of doctor-patient comprehension in multilingual hospital settings, *Proceedings of the 10th International Conference on Terminology and Artificial Intelligence TIA*, Paris, France, 2013.
- [16] N.G. Yılmaz, H. Sungur, Jcm van Weert, Metc van den Muijsenbergh, Bc Schouten, Enhancing patient participation of older migrant cancer patients: needs, barriers, and eHealth (Under review), *Ethn. Health* (2020).
- [17] R.L. Street Jr., H.S. Gordon, M.M. Ward, E. Krupat, R.L. Kravitz, Patient participation in medical consultations: why some patients are more involved than others, *Med. Care* 43 (2005) 960–969.
- [18] S. Schinkel, Bc Schouten, F. Kerpiclik, B. van den Putte, Jcm van Weert, Perceptions of Barriers to Patient Participation: Are They Due to Language, Culture, or Discrimination? (in press), *Health Comm.*, 2020.
- [19] G. Elwyn, D. Frosch, R. Thomson, N. Joseph-Williams, A. Lloyd, P. Kinnersley, E. Cording, D. Tomson, C. Dodd, S. Rollnick, A. Edwards, M. Barry, Shared decision making: a model for clinical practice, *J. Gen. Intern. Med.* 27 (2012) 1361–1367.
- [20] F.M. de Graaff, A.L. Francke, M.E. van den Muijsenbergh, S. van der Geest, Understanding and improving communication and decision-making in palliative care for Turkish and Moroccan immigrants: a multiperspective study, *Ethnic. Health* 17 (2012) 363–384.
- [21] F. Baltesen, Allochtonen maken kennis met zorg van de apotheek [Migrants getting acquainted with pharmaceutical care], *Pharm. Weekbl. Sci.* 4 (2017) 1–3.
- [22] J. Holroyd, Relational autonomy and paternalistic interventions, *Res Publica* 15 (2009) 321.
- [23] D. Krystallidou, I. Devisch, D. van de Velde, P. Pype, Understanding patient needs without understanding the patient: the need for complementary use of professional interpreters in end-of-life care, *Med. Health Care Philos.* 20 (2017) 477–481.
- [24] F. Baltesen, Allochtonen maken kennis met zorg van de apotheek [Migrants getting acquainted with pharmaceutical care], *Pharm. Weekbl. Sci.* 4 (2017) 1–3.
- [25] K. Grumbach, R. Mendoza, Disparities in human resources: addressing the lack of diversity in the health professions, *Health Aff.* 27 (March (2)) (2008) 413–422.
- [26] A. Bisschoff, K. Denhaerynck, What do language barriers cost? An exploratory study among asylum seekers in Switzerland, *BMC Health Serv. Res.* 10 (1) (2010) 248.