Language Skills and Level of Experience among Arabic-Speaking Healthcare Interpreters in Denmark; an Explorative Study

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ABSTRACT

Background: Denmark has become a multicultural society over the past three decades, with 12.8% of the population being immigrants and their descendants. Many of these risk inequality in access to health and in health outcomes because of language barriers. The quality of healthcare interpreting services has recently been discussed by politicians and the media. The present explorative study investigated the sociodemographic characteristics, level of experience and linguistic skills of Arabic-speaking healthcare interpreters in Denmark.

Method: Snowball sampling (including social media) was used to recruit interpreters. Data were collected through individual telephone interviews based on an interview guide containing structured and semi-structured questions. Interpreters' language skills were assessed subjectively based on the flow of the interview and preferred interview language.

Results: Of the 232 professional Arabic-speaking healthcare interpreters interviewed 21% were assessed as having adequate skills in both Danish and Arabic, 40% we assessed as having inadequate skills in both languages. Only 6% of interpreters born in Denmark had adequate language skills in both languages.

Conclusion: A large proportion of Arabic-speaking healthcare interpreters appear to have inadequate language skills in Danish or Arabic or both. Interpreters born in Denmark do not appear to have better skills than those born elsewhere. There is an urgent need to screen interpreters to identify those who are unfit for healthcare interpretation. Those eligible should receive additional training, including technical language skills. All interpreters should be required to undergo testing of their linguistic skills to work professionally as healthcare interpreters.

Keywords: Arabic-speaking interpreters; healthcare; questionnaire; Structured and semi-structured telephone interviews; Snowball sampling.

Background

Global migration contributed to the number of immigrants and their descendants in Denmark increasing to 12.8% in 2016. Of these, 7.9% originated from non-western countries and Arabic-speaking immigrants represented the largest group [1]. Many studies have indicated that, compared to ethnic Danes, non-western immigrant groups use healthcare services more frequently and have worse self-rated morbidity and excess mortality for a range of diseases [2-5].

Ethnic minority patients often face language barriers that can result in negative experiences in encounters with the healthcare system. Errors in medical interpretation have potential clinical consequences and in some instances have been associated with serious medical events [6]. According to Danish healthcare law, all residents have the right to equal treatment and physicians should minimize language barriers through assistance from interpreters whenever necessary [7].

Trained professional healthcare interpreters can reduce communication barriers and medical errors, thus improving patient safety and satisfaction, as well as the quality of care and health outcome for patients with language barriers [8,9].

Most Danish studies have focused on the experiences and preferences of healthcare staff regarding interpreting [10-12]. However, despite studies documenting patients’ perceived need for interpreters [10,13], assistance from interpreters is often not used. Varying quality of professional interpreting has been reported, but this has not been assessed systematically from the perspective of health professionals and patients [10,11,14,15]. The quality of interpreting has frequently been discussed in the media, with complaints about untrained, unqualified and unprofessional interpreters [16-19]. However, the evidence behind these comments is unclear and studies of interpreter quality are scarce.

We have not been able to identify Danish studies that have investigated the characteristics or level of experience of healthcare interpreters or their level of bilingualism [20]. The aim of the present study was therefore to investigate the sociodemographic characteristics, educational qualifications, level of experience and linguistic skills of Arabic-speaking healthcare interpreters in Denmark.

Methods

Design

In this explorative study, we collected data from Arabic-
speaking interpreters through individual telephone interviews based on an interview guide (questionnaire) that contained structured and semi-structured questions on sociodemographic characteristics, ethnic and linguistic background, interpreting experience and any difficulties encountered during interpreting situations.

**Participants and procedure**

Snowball sampling was used to recruit Arabic-speaking interpreters resident in Denmark, who fulfilled the following inclusion criteria: Arabic-speaking, employed full- or part-time as interpreters and to have worked in Danish healthcare settings. The primary investigator (PI, first author Nada Itani (NI)) initially made contact with participants through the managers of the interpreting agencies responsible for providing professional interpreters for healthcare encounters. Of the 21 agencies that were given verbal and/or written information about the study, only one responded with a list of interpreters based on the inclusion criteria. The PI contacted these interpreters by telephone and informed them about the study and the ethical considerations of participation. The PI’s contact details were given to the participants in case of any questions. As the other 20 agencies did not respond regarding participation in the study, the PI used snowball sampling to recruit individual interpreters via chain referral, combined with social media networks such as LinkedIn, Google and Facebook [21].

Individual telephone interviews were held by the PI with 232 interpreters between June and November 2016. The interviews lasted between 15 and 60 min. To maintain confidentiality of the participants, the completed questionnaires were coded to protect anonymity.

**Data collection**

The 40-item questionnaire was developed by the PI for the purposes of this exploratory study. The questions were organized in five sections: 1) Sociodemographic characteristics 2) Intercultural communication, 3) Interpreters’ experience and qualifications, 4) Linguistic skills of the interpreter and 5) Challenges during consultations, including medical terminology. The structured items were rated on 4-point ordinal scales, ranging from 1 (to a high extent) to 4 (never). Examples of the semi-structured questions were: 1) What kind of difficulties have you had in consultation contexts? 2) Who do you think is responsible for misunderstanding(s) between physicians and patient? 3) Do you encounter medical terms in the consultation context that are unknown to you?

Five face-to-face pilot interviews were first conducted to test the interview guide and led to minor corrections of language and ordering of questions [22]. The main interviews were begun in Danish, but if the participant was unable to interact freely in Danish, the interview was continued in Arabic. The interview flow (e.g., need for further explanations or re-phrasing, knowledge of basic technical concepts and expressions in both languages), interaction style (e.g., level of detail in response, immediate understanding of questions) and preferred interview language were used by the PI to subjectively assess and classify each interpreter’s skills in both languages. The PI is bilingual in Arabic and Danish (with Arabic as mother tongue), is familiar with both cultures and has a professional background (journalist and language teacher).

The participants were classified according to their language skills into three main groups (high level, medium level and low level):

Group 1 (G1-adequate): High language skills in verbal performance in at least one language and at least medium skills in the other. This group includes those interpreters who were able to maintain effective communication and maintain the conversation flow in at least one language. The language skills for interpreters in this group were considered adequate.

Group 2 (G2-moderate): Low skills in verbal performance in one of the languages and at least high in the other or medium skills in both languages. The interpreters in this group were able to maintain an effective communication and maintain the conversation flow in at least one language and only moderate in the other or were just moderate in both.

Group 3 (G3-inadequate): Low language skills in verbal performance in both languages or low skills in one language and moderate in the other. The interpreters in this group had limited basic vocabulary in at least one language. They were unable to communicate effectively and maintain the conversation flow in either language. The language skills for interpreters in this group were considered inadequate.

The quotes presented in this article have been translated from Arabic and Danish and anonymized.

**Results**

Of the 232 Arabic-speaking healthcare interpreters interviewed, only 6% had a formal interpreting education. About two third (78%) had a bachelor degree or higher and 79% of these had obtained their degree in Denmark (Table 1). Over 90% worked as part-time freelancer.

Over one-third (38%) had been resident in Denmark for more than 20 years, 29% had been resident for 10-20 years and 4% resident for less than 10 years (60% of these were aged 18-29 years). The remaining 30% were born in Denmark and 96% of them were aged 18-29 years. The mean age of all of those born outside Denmark was 38 years and for those born in Denmark was 24 years. Regarding interpreting experience, 56% of those born outside Denmark had more than 2 years of the interpreting experience, compared to 35% for those born in Denmark.

According to our subjective assessment, 40% of participants had inadequate language skills (G3), 39% had moderate language skills (G2) and 21% had adequate language skills (G1). One in five interviews (n=47) had to be carried out in Arabic because the participant had inadequate skills in Danish and could not complete the interview without major difficulty. We considered 7% (n=16) of interpreters to have Arabic language skills at the level of simple courtesy phrases. One of the interpreters told us "I know people whose Arabic language is very poor and now they are working as an
The mean length of interpreting experience for those rated as having adequate language skills (G1) was 148 months, for those with moderate skills (G2) was 44 months and for those with inadequate skills (G3) was 35 months. No substantial association was found between adequacy of language skills and years of residency in Denmark. Of those with more than 20 years’ residency, 38% were rated as being in G1 and 35% were rated in G3 (Table 2). In contrast, only 6% of those born in Denmark were rated in G1, while 45% were rated in G3. Thus of those who were rated as having adequate language skills (G1), 69% (33/48) had been resident for over 20 years and of those who were rated as having inadequate language skills (G3), 32% (30/93) had been resident for over 20 years. As another interpreter said “I am surprised that several interpreting agencies have employed me because I am not competent. I was born in Denmark and am fluent in Danish, but I am not good at Arabic. …I understand nearly everything in Danish, but I have big problems when I have to say it in Arabic. There are many words and expressions that I do not know, so I end up having to give long explanations to the patient or asking the doctor to explain it in another way or find another expression.”

Regarding educational level, 53% (20/38) of the interpreters with a bachelor degree or higher from their home country were rated as having adequate skills (G1), with a mean age of 53 years

### Table 1: Socio-demographic characteristics and language skills of Danish Arabic-speaking healthcare interpreters.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td><strong>Sex, n=232</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>88</td>
<td>37.9</td>
</tr>
<tr>
<td>Female</td>
<td>144</td>
<td>62.1</td>
</tr>
<tr>
<td><strong>Age group (years), n=232</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 to 29</td>
<td>118</td>
<td>50.9</td>
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<tr>
<td>30 to 49</td>
<td>86</td>
<td>37.1</td>
</tr>
<tr>
<td>50 and over</td>
<td>28</td>
<td>12.1</td>
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<tr>
<td><strong>Country of origin, n=214</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Palestine</td>
<td>106</td>
<td>49.5</td>
</tr>
<tr>
<td>Iraq</td>
<td>45</td>
<td>21.0</td>
</tr>
<tr>
<td>Lebanon</td>
<td>26</td>
<td>12.2</td>
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<tr>
<td>Syria</td>
<td>20</td>
<td>9.4</td>
</tr>
<tr>
<td>Others</td>
<td>17</td>
<td>7.3</td>
</tr>
<tr>
<td><strong>Educational level in home country, n=136</strong></td>
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<tr>
<td>Primary</td>
<td>70</td>
<td>51.5</td>
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<tr>
<td>Secondary &amp; Post-secondary</td>
<td>28</td>
<td>20.6</td>
</tr>
<tr>
<td>Bachelor degree or higher</td>
<td>38</td>
<td>27.9</td>
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<tr>
<td><strong>Educational level in Denmark, n=232</strong></td>
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</tr>
<tr>
<td>Primary</td>
<td>44</td>
<td>19.0</td>
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<tr>
<td>Secondary &amp; Post-secondary</td>
<td>45</td>
<td>19.4</td>
</tr>
<tr>
<td>Bachelor degree or higher</td>
<td>143</td>
<td>61.6</td>
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<tr>
<td><strong>Employment status as interpreter, n=231</strong></td>
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<td></td>
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<tr>
<td>Full-time</td>
<td>16</td>
<td>6.9</td>
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<tr>
<td>Part-time (freelance)</td>
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<td>93.1</td>
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<td><strong>Interpreting company, n=232</strong></td>
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<td>Working for 2 companies</td>
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<tr>
<td>Working for 3 or more companies</td>
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<tr>
<td>Has own company</td>
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<td>2.6</td>
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<td><strong>Subjectively assessed language skills, n=232</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. High level Danish – High level Arabic</td>
<td>13</td>
<td>5.6</td>
</tr>
<tr>
<td>2. High level Danish – Medium level Arabic</td>
<td>1</td>
<td>6.5</td>
</tr>
<tr>
<td>3. Medium level Danish – High level Arabic</td>
<td>20</td>
<td>8.6</td>
</tr>
<tr>
<td>4. Medium level Danish – Medium level Arabic</td>
<td>34</td>
<td>14.7</td>
</tr>
<tr>
<td>5. High level Danish – Low level Arabic</td>
<td>38</td>
<td>16.4</td>
</tr>
<tr>
<td>6. Low level Danish – High level Arabic</td>
<td>19</td>
<td>8.2</td>
</tr>
<tr>
<td>7. Low level Danish – Medium level Arabic</td>
<td>30</td>
<td>12.9</td>
</tr>
<tr>
<td>8. Medium level Danish – Low level Arabic</td>
<td>49</td>
<td>21.1</td>
</tr>
<tr>
<td>9. Low level Danish – Low level Arabic</td>
<td>14</td>
<td>6.0</td>
</tr>
</tbody>
</table>

interpreter. When I saw that they could become interpreters, I applied for the job too.”
among interpreters who worked for the four largest interpreting agencies, the proportion with inadequate bilingual skills varied from 22% in the smallest agency to 52% in the largest agency. “I have been employed as an interpreter for four months, but the interpreting agency has never met me in person and does not know my level of interpreting skills or my level of knowledge about the languages and cultures. I am weak in the Danish language, but strong in Arabic.”

### Discussion

In this exploratory study among Arabic-speaking healthcare interpreters, we identified problems in simple bilingual conversation skills and language qualifications in more than two-thirds of interpreters. Very few interpreters were competent in both languages and only 6% had undergone formal interpreter training. Our study thus provides some evidence to support claims in the media regarding poor quality of interpretation services and highlights the need for interventions to improve the quality of healthcare interpreting.

Health professionals often assume an interpreter is competent if he/she speaks Danish well, while patients make a
similar assumption if the interpreter speaks Arabic well. Being born in Denmark does not necessarily qualify someone as a good interpreter, as less than 10% of the interpreters born in Denmark had adequate language skills (G1). Interpreters born in Denmark have usually learned to speak Arabic informally from their parents and may not read or write the language, thus lacking a deeper understanding of concepts, values and norms rooted in the Arabic language. Furthermore, being bilingual does not automatically mean the person is qualified to be an interpreter [23].

We found a strong positive association between the qualifications of the interpreters and the length of their interpreting experience. Interpreters who lack formal training and are on low wages can improve the quality of their interpreting by gaining more work experience. However, Flores et al. found that mistakes during interpreting were less frequent among professional interpreters who had at least 100 h of training [6].

The educational level of the interpreters in our study was also related to their adequacy as interpreters, although to a lesser extent than length of interpreting experience. Thus we found that the proportion of interpreters with a bachelor degree or higher was 53% of those with adequate skills (G1), 28% of those with moderate skills (G2) and 10% of those with inadequate skills (G3). Interpreters with higher education level were better at understanding our questions and at conducting a fluent conversation independent of their preferred language. However, a study that assessed language competency among interpreters reported that, among 840 dual-role staff interpreters in the healthcare system, the 17% (n=143) who were licensed clinicians (i.e., physicians, nurses, therapists) did not pass as healthcare interpreters at higher rates than other bilingual staff; and about 1 in 5 of all dual-role staff interpreters had insufficient bilingual skills to serve as interpreters in a healthcare encounter [23].

Interpreters who were rated as having inadequate skills (G3) had poor Arabic language skills and/or poor Danish language skills. Those with poor Arabic skills were typically young persons who had become fairly well integrated into Danish society during their upbringing and had only acquired the Arabic language at a superficial level to be able to communicate with their parents and Arabic surroundings. They lacked a fluent conversation skill and had a very limited Arabic vocabulary and thus may have an insufficient language foundation to develop into a well-functioning interpreter. However, those with poor Danish language skills were either young individuals born in Denmark but grown up in a linguistically isolated Arabic environment such as deprived areas or an unemployed persons who had emigrated from an Arabic country and acquired a limited Danish language vocabulary. These interpreters had limited general knowledge, especially about human anatomy, illness, Danish society, public administration and the welfare system. This group could have potential to become acceptable interpreters, but it would require special effort from the interpreters themselves, the authorities and educational institutions. An interpreter born in Denmark said that “there are many patient and families who have told me that my Danish is not good enough and they don’t want me to interpret for them again.”

Health workers typically consider communication through an interpreter to be more difficult because of the missing nuances in language and communication [24]. We noted a variety of difficulties in our conversations with the interpreters. For example, some interpreters insisted that the conversation was in Danish and others in Arabic and terms that should be common in healthcare interpretation settings were problematic for many of the interpreters and the interviewer had to explain the term. There were also challenges due to the different regional versions of Arabic spoken by the interpreters. This variation can be a challenge for both interpreter and patient if they come from different Arabic-speaking countries, as confirmed by interpreters during the interviews. As one interpreter told us, he could understand all Arabic dialects, but only because he had long experience (45 years) working as an interpreter. An additional challenge has been in building trust between PI and interpreters, as they were often from different cultural backgrounds and different adverse or traumatic experiences.

We have not found previous studies that have assessed the interpreting skills of professional interpreters. Most studies compare professional and ad hoc interpreters in terms of user satisfaction and do not report systematic, formal language skill assessment [10,11,25]. A few studies have investigated attitudes, preferences and experiences related to interpreted health consultations [25-27]. We recommend that assessment of interpreter qualifications should not be based on the physician’s or patient’s perceptions alone because they have contact with relatively few interpreters and therefore have very limited experience. Physicians and patients usually have insufficient bilingual skills to assess quality in their respective foreign language(s) and their evaluations are easily biased. Health professionals often assume an interpreter is competent if he/she speaks Danish well, while patients make a similar assumption if the interpreter speaks Arabic well, while neither is competent to evaluate the bi-lingual skills of the interpreter.

The challenge of working with interpreters in a cross-cultural context raises important issues about the complexity of the interaction through interpreters [28,29]. Our study demonstrates that this is probably beyond the skills of many professional healthcare interpreters. We have found no studies that evaluate healthcare interpreters’ experiences of situations involving healthcare staff with no prior experience in bilingual patient communication. Interpreters express dissatisfaction with healthcare staff and especially physicians, who are considered to lack the ability and experience to engage efficiently and properly with interpreters (Unpublished data). Many physicians do not have the communicative skills to conduct a normal conversation through an interpreter. Focus group discussions with experienced interpreters indicate that individual communication and language styles of physicians contribute to challenges in interpretation (Unpublished data) [12]. Physicians do not routinely receive training in interpreter-mediated patient communication, but studies indicate that this should be part of the medical school curriculum [29]. Healthcare staff should be trained in how to communicate with interpreters and to provide feedback to the interpreter agencies, so as to help enhance
the quality and equality of healthcare interpreting encounters [24,25].

It is estimated from the present study (based on the number of Arabic interpreters in the four largest interpretation agencies and that many interpreters have several employers) that a maximum of 1,000 persons in Denmark have at some time acted as a paid Arabic healthcare interpreter. The study thus covered about 25% of the Arabic interpreters in Denmark and it also had a wide variation in the Arabic language spoken by the interpreters. Both of these support the validity of the study. We included interpreters from all five of the Danish regions and our results are therefore likely to be generalizable at a national level.

It is strength of the study that assessment of language skills was undertaken by only one person, which ensured quality and uniformity in the subjective assessment. The assessment was based on a wide range of factors and a long set of questions asking about different aspects of conversation skills.

The aim must be to achieve higher quality interpreting services through improved training and more learning experiences for interpreters. We suggest that the healthcare system and the regional authorities take over language screening and training of professional healthcare interpreters to ensure a stable and well-qualified team of interpreters. A smaller pool of Arabic-speaking interpreters will lead to greater experience for those who lack a formal interpreter training, which seems to be the best way of producing skilled interpreters. The use of bilingual health workers as ad hoc interpreters should be discouraged unless they have been tested for language skills in the same way as professional interpreters.

**Conclusion**

This exploratory study among Arabic-speaking healthcare interpreters concluded that a large proportion of interpreters are insufficiently qualified to interpret and that about two-thirds of interpreters lack competence in Danish and/or Arabic. These findings were supported by statements made by interpreters about problems they faced when interpreting in health care. The most important factor for high quality interpretation was the length of time working as an interpreter. In view of this, we suggest a reduction in the number of interpreter companies and of Arabic-speaking interpreters. There is an urgent need to carefully select and train healthcare interpreters.

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