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Issues related to serving the Arabic-speaking population in diaspora space with a focus on North America

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Abstract

The purpose of this paper is to report on the state of both professional licensure and the practice of speech language therapy in the diaspora spaces of the United States and Canada. Additionally, this paper discusses best practices for collaborating with, providing care to, and facilitating professional growth among the Arab diaspora. We begin by examining the practical contexts of professional certification in speech-language therapy in the US and Canada, particularly for bilinguals and Arab clinicians followed by a discussion of the challenges in care provision unique to Arabs in the diaspora. The paper is framed around these substantial differences in providing care to Arabs living in the Arab world, as opposed to those living in the diaspora; this is in order to encourage clinicians to consider social factors in the provision of a culturally responsive practice. These discussions exemplify how different contexts require clinicians to expand their practice beyond the positivist, raciolinguistic based assessment and intervention approaches exemplified in biomedical fields. Such outlooks are primarily focused on the biological bases of communication disorders and therefore overlook and/or pathologize both their sociocultural backgrounds and their interaction with communication differences and disabilities. In reality, these reflections are critical to designing effective assessments and interventions in clinical care in Speech, Language, and Hearing Sciences.

Keywords: *Arabic assessment, Arab culture, speech-language pathology licensing, diaspora, minoritized communities*

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Introduction: Speech language therapy in the U.S. and Canada serving Arab communities

In the most recent annual demographic report by the American Speech-Language-Hearing Association (ASHA), only 8.3% of members identified as Black, Indigenous, or People of Color (BIPOC) (ASHA, 2020), in contrast to 27.6% of the U.S. population (ASHA, 2021). Among these are 295 Arabic-speaking speech-language pathologists (SLPs) in the U.S. (ASHA, 2021). Although data on SLP demographics in Canada is unavailable (SAC, 2022), the Canadian regulatory and licensing bodies reported 41 registered Arabic-speaking SLPs (Alberta College of Speech-Language Pathologists and Audiologists, 2022; College of Audiologists and Speech-Language Pathologists of Ontario, 2022; College of Speech and Hearing Health Professionals of British Columbia, 2022, New Brunswick Association of Speech-Language Pathologists and Audiologists, 2022; Nova Scotia College of Audiologists and Speech-Language Pathologists, 2022, ; Ordre des Orthophonistes et Audiologistes du Québec , 2022; Speech-Language & Audiology Canada, 2022;). These numbers conflict with the population that speaks Arabic at home, which is approximately 1.26 million people in the U.S. (Dietrich et al., 2022), and approximately 286 thousand in Canada (Statistics Canada, 2022). This significant difference means that there is approximately one Arabic-speaking SLP for every 4,271 Arabic speakers in the U.S and one Arabic-speaking SLP per 6,976 Arabic speakers in Canada. There is an evident shortage of certified Arabic-speaking SLPs in

the U.S. and Canada who are equipped to work with Arabic-speaking populations in both nations. Furthermore, Arabic-speaking SLPs in the U.S. are not evenly distributed across states, as there is a state-by-state disparity in the number of linguistically and culturally diverse SLPs. For example, the highest number of multilingual SLPs are concentrated in the U.S. states of California (2,496), Texas (2,670), and New York (2,207), and the smallest numbers of multilingual SLPs are in North and South Dakota; with only four multilingual SLPs in each state (ASHA, 2021). Similarly, in Canada, and based on the SAC website, published information could only specify that Arabic-speaking SLPs are based in the Canadian provinces of Alberta, Quebec, and Ontario (SAC, 2022).

There has been a significant absence of racial representation in SLP graduate programs in previous research (Council of Academic Programs in Communication Sciences and Disorders & American Speech-Language-Hearing Association, 2021). According to data from the U.S. Bureau of Labor Statistics in 2013, speech-language pathology (SLP) was among the whitest professions in the U.S (Thompson, 2012). Additionally, a recent survey reported that only 25.2% of SLP students identified as BIPOC (Council of Academic Programs in Communication Sciences and Disorders & American Speech-Language-Hearing Association, 2021). This can be attributed to the obstacles that marginalized people often face in being admitted to SLP programs and their consequent underrepresentation within these programs (Kovacs, 2022). Kovacs (2022) highlighted deep inequities in admission requirements for SLP programs and

admissions processes biased against BIPOC individuals for myriad reasons. One of their main findings was the initial filtering process that siphons all applications based on a cut-off score for the Graduate Record Examination (GRE) (Katz et al., 2009). They noted that this standardized method could discriminate against marginalized people and contribute to the inequities in admission to SLP programs (Kovacs, 2022), as applicants from underrepresented populations often score lower on the GRE test (Miller & Stassun, 2014; Katz, 2009). Furthermore, applicants from BIPOC populations were more likely to have late or incomplete graduate program applications than applicants from overrepresented populations. This may be due to the financial burden applicants must take on to complete their entire application (Kovacs, 2022). These barriers further distort the accessibility and representation of BIPOC SLPs in the field.

There are currently 309 universities across the U.S. (ASHA, 2021) and 12 universities (seven in English and five in French) in Canada that offer SLP master's programs (SAC, 2021). After receiving a master's clinical degree in SLP, students in the U.S. will need to pass the Praxis Examination in Speech-Language Pathology and complete a post-graduate clinical fellowship to earn their Certificate of Clinical Competence (CCC-SLP) credential through the American Speech-Language-Hearing Association (ASHA). In some cases, an individual must also complete a minimum number of hours under the supervision of a licensed SLP in the same state by which they seek licensure. Experience requirements vary from state to state. However, many

states have modeled their clinical experience to match the requirements necessary to earn the CCC-SLP. For SLP graduates planning to provide speech services in public schools, some states require further certification, such as the "Teacher Certification" in New York state (ASHA, 2021). In Canada, graduates must apply to one of the nine regulatory bodies for the province they wish to practice in (SAC, 2022). In addition, graduates in most provinces must complete a six- month mentorship before they begin to practice. For example, Speech-Language and Audiology Canada (SAC), the national organization for speech-language pathology, conducts an annual examination called the "Canadian Entry-to-Practice Exam (CETP)" (SAC, 2022). Many Canadian regulated jurisdictions require successful completion of the CETP exam (e.g., College of Audiologists and Speech-Language Pathologists of Ontario), while the national SAC certificate is not necessary to practice in Canada. However, some SLPs prefer to obtain the SAC certificate anyway, especially if they plan to relocate and work in another jurisdiction, such as ASHA. It is important to note that, as of 1998, SAC and ASHA recognize one another's certifications (ASHA, 2017).

Internationally educated SLPs must apply to the international application stream in order to legally practice in the U.S. or Canada. For this stream, international graduates must complete the same *exact* requirements as their domestic peers as well as other special requirements (ASHA, 1997-2022c; SAC, 2022). The application requirements are littered with measures designed to recruit a solely English and French-speaking

workforce and limit the recruitment of SLPs fluent in other languages (Kovacs, 2022; Yu et al., 2022). Our field consistently certifies more English and French-speaking SLPs by implementing application requirements that limit individuals from diverse cultures and languages interested in entering our field (Kovacs, 2022; Yu et al., 2022). A top-priority condition for international applicants hoping to practice in the U.S. or Canada is to demonstrate professional language proficiency in English or French (ASHA,1997-2022c; SAC, 2022). These requirements act as barriers for international applicants planning to conduct SLP services in the U.S. or Canada in other languages such as Arabic. Furthermore, entry-to-practice exams that assess the skills and knowledge of SLPs, such as PRAXIS and CETP, are being conducted exclusively in English or French (ASHA, 1997-2022c; SAC, 2022). Internationally educated SLPs may not achieve a passing score in the entry-to-practice exams simply due to their inadequate language proficiency in English or French rather than underdeveloped clinical knowledge and skills (Yu et al., 2022). Previous research has been conducted on the impact of English as a second language on the National Nurse Licensure Examination (NCLEX) which showed that language competency significantly impacts performance in the NCLEX exam (O'Neil, 2006). This particularly raises an important question in attempting to understand the disproportionate number of minority SLPs in the field compared to other SLPs: would international applicants score better on the PRAXIS and CETP if the exam was conducted in their mother tongue. To answer this question, future research should

explore how PRAXIS and CETP can be affected by a lack of competency in English and/or French. Additionally, one ought to consider why professional associations emphasize having a high-professional language proficiency in English and/or French when in reality, we currently lack SLPs with different language backgrounds (Yu et al., 2022).

The availability of exams in more than one language is not new to the SLP associations. For instance, the CETP is already available in two versions, English and French (SAC, 2022) and therefore, adding more versions should be feasible. Another area of inequity in the international application process is its financial burden; ASHA and SAC international application fees range from $155 to $455 (ASHA, 1997-2022c; SAC, 2022), not including charges that are required by state or provincial licensure. The applicant is also responsible for preparing a report from a National Association of Credential Evaluation Services (NACES) agency, such as World Education Services (WES), to prove that the individual has completed a degree equivalent to a master's degree in SLP in the U.S. or Canada (ASHA, 1997-2022c; SAC, 2022). Most often, the jurisdiction will ask for detailed syllabi, course descriptions and a practicum hours summary to determine if the individual meets the SLP certification standards required to work as an SLP. All these items are the applicant's responsibility and must be mailed from their home country to the jurisdiction (ASHA, 1997-2022c; SAC, 2022). Unfortunately, the time-consuming and expensive international application process is only practical for students of privilege who have access to significant financial

resources and time (Ellis, 2021). Such a financial and time-consuming application process prevents many highly qualified international SLPs from practicing in the U.S. or Canada.

SLPs immigrating from Arab countries are categorized as internationally educated speech-language pathologists. For many of the reasons presented thus far, immigrant SLPs from Arab countries cannot easily get certified in the U.S. or Canada. One of the most common reasons for an immigrant SLP's application to be denied is an incomplete number of practicum hours served during their master's program. A minimum of 400 supervised practicum hours are usually required in American and Canadian jurisdictions (ASHA, 1997-2022c; SAC, 2022). However, fewer hours are required in their master's program in Arab countries. For example, the master's program in speech-language pathology at the University of Jordan requires the completion of 300 practicum hours (The University of Jordan, n.d.). Immigrants usually tend to change their fields and work when coming to Canada or the U.S. because their financial situation cannot cover the living expenses (Payne, 2018) as they wait for the lengthy review process (approximately six months to a year), especially given the current exacerbated inflation rates in both countries (Macrotrends, 2022). It is worth noting that some programs in Canada financially support immigrant applicants by waving the registration fees to the regulatory body (The Working Centre, 2022), but this is not nearly enough to offset the shortage of SLPs necessary to serve Arabic-speaking

populations in the U.S. and Canada.

As previously mentioned, recent statistics reveal that there are only 295 Arabic-Speaking SLPs in the U.S. and 41 across Canada (ASHA, 2021; SAC, 2022). It is challenging to find Arabic-speaking SLPs in North America first and foremost due to the shortage of Arab SLPs. This results from broader systemic racism and biases targeted against BIPOC applicants to academic programs in speech-language-hearing sciences (SLHS) (Kovacs, 2022; Newkirk-Turner & Hudson, 2022). This is more acute for identifying Arab clinicians because Arabs are not recognized as an ethnic minority in the U.S. census and their medical and health related data are omitted (e.g., Awad et al., 2022). For instance, it is not straightforward for clients to find Arabic-speaking SLPs in Canada because not all regulatory provincial bodies provide the option to search for the language spoken by SLPs on their websites. According to our search in August 2022, there were only two Canadian regulatory provincial bodies' websites out of nine (i.e., College of Audiologists and Speech-Language Pathologist of Ontario "CASLPO" and Alberta College of Speech-Language Pathologists and Audiologists "ACSLPA") providing the option to look for Arabic-speaking SLPs in their "Find an SLP" page. From our experience as Arabic- speaking SLPs in the U.S and Canada, centers would refer Arabic-speaking clients to us through word of mouth. However, the small number of SLPs cannot accommodate all Arabic-speaking clients in their schedule; thus, many SLPs from other linguistic and cultural backgrounds work with Arabic-speaking clients. However, in

many instances, Arabs may be hesitant to accept services from outside their community due to their experiences of discrimination and the stress and distrust associated with such experiences. These experiences of systemic racism and islamophobia can be traumatizing for Arab SLPs and clients alike (Abu-Ras & Abu-Bader, 2008; Padela & Heisler, 2010).

Therefore, SLPs from other linguistic and cultural backgrounds must be aware of this possible barrier that may affect their services to the Arab population. ASHA (2009) and CASLPA (1997) mandate that SLPs consider the cultural and linguistic diversity affecting SLP services. However, for the Arab population, there are limited resources for SLPs to learn about the unique Arab culture and its language to provide clinicians with information regarding the diversity of the Arab population to inform speech and language assessment and treatment (Khamis-Dakwar & Khattab, 2014). Such resources are urgently needed to work with Arabs in the U.S. and Canada to ensure sensitive and appropriate speech and language services. Indeed, according to one of the author's previous experiences as an SLP in Ontario, many Arab families reached out to her to complain about the services that SLP centers are providing as they claim that the services were a "waste of money." For example, one Muslim Arab parent canceled SLP services for her son because the SLP showed her 3-year-old son a picture of an individual eating pork. The SLP failed to deliver culturally sensitive therapy as recommended by ASHA (ASHA, 2004) and CASLPA (CASLPA, 1997) guidelines because she was not aware of Islamic beliefs and traditions (Attum, 2021). This situation confirms previous findings

(Beyea, 2019; Jordaan, 2008; Caesar & Kohler, 2007) reporting a mismatch between the practice of SLPs with bilingual children in various countries, including the U.S. and Canada, and the recommended guidelines for working with a multilingual population.

Besides the recommendations of acknowledging cultural diversity and how it can affect clinician interactions with family members, ASHA (2004) and SAC (CASLPA, 1997) guide SLPs working with multilingual populations to conduct speech-language services in the client's first language. However, it is recognized by both associations that there is a shortage of qualified SLPs to provide services for the numerous languages (e.g., Arabic) of clients in need of services (ASHA 2004; CASLPA 1997). Therefore, hiring professional interpreters and translators is recommended if referral to a bilingual SLP is not possible. Many Arab immigrants utilize interpreters in healthcare services, and they find them very useful, especially if they share the same Arabic dialect (Albin & Hjelm, 2014). However, a qualitative study showed that an Arabic speaking individual not only asks for an interpreter that shares the same dialect but also origin, religion, gender, and political views (Hadziabdic & Hjelm, 2014). This adds a significant burden on the SLP because it is impossible to find an interpreter that matches all these demographics. Therefore, many SLPs tend to have family members or friends as translators to overcome the communication barrier, and this endures specific challenges that may not be evident in working with professional translators.

Requirement for Bilingual Certification

Speech-language pathology associations in the U.S. and Canada do not accredit specialty training programs for SLPs to work with multilingual/ multicultural populations (ASHA, 2022; SAC, 2022). However, some SLP graduate schools offer multilingual/ multicultural certificate programs for SLP students. The certificate allows students to specialize in evidence-based methods of assessment, diagnosis, and treatment of bilingual children and adults with speech and language disorders (ASHA, 1997-2022b). These programs usually follow one of the following three categories: The first category refers to programs for monolingual and bilingual SLP students, such as the University of Arizona (University of Arizona, 2022) and the University of Minnesota (University of Minnesota, 2022). Students are expected to complete additional coursework on cultural and linguistic considerations in speech-language pathology as well as a certain number of clinical practicum hours with multilingual clients. The second category refers to programs that ask for evidence of oral language proficiency in another language besides English, such as the bilingual extension certification program of the New York State Education Department Teacher of Speech and Language Disabilities (TSLD) (New York State Education Department, 2015-2019) and the extension program at Elmhurst University (Elmhurst university, 2022). Similar to programs within the first category targeting monolinguals and bilinguals, programs within this category also require additional coursework on top of their graduate courses

and a certain number of practicum hours with multilingual clients. The third category refers to programs for bilingual students in specific languages. In the U.S., these programs are available only for 'Spanish and English' bilingual speakers, e.g., at the University of Redlands (University of Redlands, 2022) and DePaul University (DePaul University, 2001-2022). Whereas in Canada, these programs are specialized for 'French and English' bilingual speakers, e.g., at the University of Alberta. Enrolled students in this category of programs are expected to satisfy coursework and placement hours that are focused on assessment and intervention considerations for Hispanic or Francophone populations (University of Alberta, 2022; University of Redlands, 2022). Finally, given the variation between the three categories, the entry requirements for these programs vary from university to university, and it is worth noting that multilingual/ multicultural certification programs are not reviewed or evaluated by SAC or ASHA.

Major Developments in the Clinical Discipline of Speech, Language, and Hearing Sciences (SLHS)

In this section we highlight the main developments in the clinical discipline of SLHS to inform readers of this paper who are clinicians working in the Arab world. We discuss the prospect of these professional trends for clinicians working with Arab populations in diaspora spaces. The use of the term Diaspora space is based on Brah's (1996) definition to extend beyond those who are forcibly displaced and to include those who immigrated by choice and first generation immigrants in recognition of the "global

condition of culture, economics and politics as a site of 'migrancy' and 'travel' which seriously problematizes the subject position of the 'native'(Brah, 1996, p. 181).

Evidence based practice and cultural competence

The SLP field in the U.S. and Canada follows the Evidence-Based Practice (EBP) model to inform clinical decisions (ASHA 2004; Orange, 2004). The EBP model is adopted from evidence-based medicine (EBM) (Sacket, 1996) and is based on epistemological principles that limit equity in communication disorders (Abrahams et al., 2019). The medically-based EBP model is inadequate in addressing diversity, equity, and inclusion. However, it is widely used in all professional actions in communication sciences, from training clinicians to research to clinical applications (Khamis-Dakwar & Randazzo, 2021). The EBP incorporates three pillars: (1) Expert Opinion, (2) Scientific Evidence, and (3) Client Perspective (Sacket, 1996). The three pillars fail to incorporate a culturally responsive practice in the SLP field (Khamis-Dakwar & Randazzo, 2021). The first pillar, "Expert Opinion," is defined as "The knowledge, judgment, and critical reasoning acquired through your training and professional experiences" (ASHA, 1997-2022d). It is acknowledged that the field of communication disorders is one of the whitest fields in North America (Thompson, 2013) and does not present the diverse population served by speech-language pathologists. The discrepancy between the training and experiences of SLPs and BIPOC (e.g., Arab) clients makes clinical decisions

vulnerable to implicit bias (Khamis- Dakwar & Randazzo, 2021). Moreover, implicit bias is a subconscious bias that results from a negative stereotype of a particular group (Nosek, 2007). Implicit bias negatively affects the health and level of care received by non-white clients in healthcare (Agency for Healthcare Research and Quality, 2021), especially Arabs compared to white individuals (Egede, 2021; Alkozie, 2017).

The second EBP pillar is the level of evidence, which is "the best available information gathered from the scientific literature (external evidence) and data and observations collected on your client (internal evidence)" (ASHA, 1997-2022d). White researchers are most frequently evaluating current evidence in communication disorders; only 8% of ASHA affiliates identify as a "racial minority" (Farrugia & Abou-Arabi, 2021). This issue is particularly important when producing research for culturally responsive practice that is not subjective or biased by a particular group (Stockman, 2007). Moreover, the EBPs adopted by ASHA and SAC claim that the best evidence for answering clinical questions related to intervention efficacy is meta-analysis reviews that synthesize randomized controlled trials (ASHA, 2004; Orange, 2004).

Efficacy meta-analysis studies are purely quantitative and received much criticism from previous literature due to their approach of "one size fits all," which is targeted to treat a single condition in a highly controlled environment (Szajewska, 2018, p.16). The condition of patients in the efficacy studies in which they are controlled and

isolated from other influences is not the same as real-world patients (Sherman, 2016). Thus, equal support should be given to quantitative and qualitative inquiries to create a systematic analysis that can holistically address the evidence for specific practices and the culturally responsive context (Mertens, 2020; Khamis-Dakwar & Randazzo, 2021). For serving the Arab population in the diaspora, there are sparse quantitative and qualitative investigations related to the Arab population (Awad et al., 2022), and both methods of inquiry are essential to creating evidence-based guidelines for culturally and linguistically appropriate practices for Arabic speaking clients in the diaspora (Awad et al., 2022). However, most research is predominantly conducted with monolingual White samples despite the growing evidence of distinct health and social patterns in Arab populations (e.g., Abulezam, 2019; Dallo, 2016).

The third pillar is client perspective, which is defined as "The unique set of personal and cultural circumstances, values, priorities, and expectations identified by your client and their caregivers" (ASHA, 1997-2022d, p.1). ASHA Evidence Maps show the client preferences category to have the least available literature across all topics (ASHA, 1997-2022a). This likely intersects with the lack of qualitative research in Speech and Language Hearing Sciences (SLHS). ASHA and SAC guidelines for working with culturally and linguistically diverse clients are shaped as recommendations and assessments for the clinician. The ASHA Practice Portal (ASHA, 1997-2022d) contains self-assessment checklists of cultural competence, assessing the clinician's awareness of

cultural and linguistic diversity (e.g., language difference vs. language disorder). However, these checklists may encourage generalizations and stereotypes of culturally and linguistically diverse clients and may provide a superficial acknowledgment of cultural differences but no guidance on how to manage those differences in a culturally responsive context (Khamis-Dakwar & Randazzo, 2021). Besides these checklists, there are no recommended tools by ASHA or SAC to assess implicit bias in how SLPs act with culturally and linguistically diverse populations. Nor is there a mention of the role of white privilege and power in institutional policies and research that disadvantage BIPOC clients (Yu, 2021), i.e., Arabs. Thus, SLPs, within the current EBP framework, would less likely to be aware of the unique experiences endured by Arabs whom they may work with.

Interprofessional practice

The second major development in SLHS is related to Interprofessional Practice (IPP), which emerged in the healthcare sector several decades ago to provide more holistic and patient centered care (WHO, 1988). The World Health Organization (WHO) referred to IPP as a collaborative practice in which "multiple health workers from different professional backgrounds provide comprehensive services by working with patients, their families, careers, and communities to deliver the highest quality of care across settings" (Gilbert, 2010, p. 13). Given this development in healthcare service

delivery toward a more interdisciplinary team approach, the Council of American Accreditation (CAA, 2017) and the Council for Accreditation of Canadian University Programs (CACUP-ASLP, 2017) added IPP standards and a clear expectation from academic programs to facilitate the development of IPP knowledge and skills in academic and clinical education programs in SLHS (CAA, 2017; CACUP-ASLP, 2017).

Despite the trend of collaborative work in the U.S. and Canada, IPP is still an emerging concept in Arab countries (Katoue, 2021; El-Awaisi, 2017). In an international survey conducted by WHO, interprofessional practice education was reported to be conducted in 41 countries, of which the majority of these reports were from the U.S., Canada, and the U.K., whereas only 4% of respondents were from the Middle East (i.e., Jordan, Egypt, Saudi Arabia, and the United Arab Emirates) (Rodger, 2010). A more recent report has shown that some programs in Arab countries have started implementing interprofessional collaborative education, such as the Bachelor of Pharmacy program at the University of Qatar (El-Awaisi, 2017). The program has been accredited by the Canadian Council for Accreditation of Pharmacy Programs (CCAPP) since 2014 and has been providing interprofessional collaborative education for pharmacy students (El-Awaisi, 2017). The program demonstrated evidence of a positive impact on students in addressing negative stereotypes and beliefs about other professionals (El-Awaisi, 2020). However, the extension of IPP concepts to SLP programs in Arab countries is still underdeveloped.

Issues Related to Serving Arab Population in diaspora spaces

Speech pathologists working in the Arab world or the diaspora are all vulnerable to being asked to conduct their work in a discipline that is a developing field in their society. This vulnerability can be broken down into four specific ones: conducting their work based on limited basic knowledge of Arabic language development and processing in typically developing individuals and those with communication disabilities, limited clinical resources that are culturally and linguistically designed to serve Arabic speaking populations, shortage of professionals in the discipline, and limited social awareness to the work of speech language therapists and its corresponding underdeveloped institutional infrastructure for speech pathology services. This vulnerability becomes more critical in light of the effect of coloniality[2] through the dominance of the medical epistemology and hegemonic Eurocentric practices on the professional work of speech language therapists globally (Pillay & Kathard, 2018). The effects of coloniality in the discipline would ultimately limit the growth towards alternative service delivery models that may be more equitable, population based, fitting the context of speech language therapy service for Arab populations (e.g., Pillay & Kathard, 2018). Around these

[2]The term coloniality refers to the "continuity of colonial forms of domination after the end of colonial administrations, produced by colonial cultures and structures in the modern/colonial capitalist/patriarchal world-system" (Maldonado-Torres,2010, p.10). It is manifested in SLHS through the domination of the positivist medical model for service provision which overlooks political, historical, social and linguistic variation in pathologizing variations from what is determined to be the standard, the inequitable access and inclusivity of the discipline to professionals of color, and the domination of intervention practices derived from individualized western socialization and lived experiences.

fundamental issues, speech pathologists serving the Arab population across the globe are still consumed in developing and standardizing assessment tools in Arabic (e.g., Abdelwahab et al., 2021; Abo Ras et al., n.d.; Abou-Elsaad et al., 2019; Alabdulkarim, 2021; Alduais et al., 2012; Alotaibi & Alotaibi, 2021; Altaib et al., 2021; Bassiouny et al., 2013; Khamis-Dakwar et al., 2018; Khamis- Dakwar & Makhoul, 2014; Khodeir et al., 2017; Rakhlin et al., 2021; Shaalan, 2009; Saleem & Natour, 2010; Taha et al., 2021a; 2021b; Zebib et al., 2019) and developing relevant databases and developmental milestones to inform assessment (e.g., Abd El Moneim et al., 2021; Mesallam et al., 2017; Mashaqba et al., 2022). These standardization attempts are meant to tackle the current practice of misusing materials developed for evaluating English speakers in Western communities (Khoja, 2019) and to ensure that provision of assessment and intervention services that are mainly designed based on English speaking westernized social norms are examined for their applicability, effectiveness and efficiency when implemented in the work of SLPs in the Arab world (e.g. Alsaad et al., 2019, 2021; Hussein et al, 2021; Rifaie et al, 2016). Under these conditions, reflective speech pathologists are constantly questioning the validity of the work they do and its relevance and impact. Without such questioning, clinicians end up adopting Westernized colonized framework of service delivery. Indeed, a review of the developed assessments for Arabic in the last year shows that most of these tests are adaptations of English tests for use in Arabic or part of what are referred to as a "universal" set of assessments designed based on knowledge of language practice in

Westernized communities in its inception and mainly serves to answer theoretical questions including the growing focus on the LITMUS test (e.g. Simonsen & Haman, 2017) which has been marketed as a crosslinguistic specific language impairment test (e.g. De Almeida et al., 2022). It should be noted that these latest investigations on the LITMUS test development seem to be less representative of clinical developments in the field. First, the use of the term SLI has been criticized in the literature and current clinicians use the term developmental language disorder (DLD) in response to the latest debates in the literature on the inappropriateness of using exclusionary criteria in diagnosing this impairment as reflected in the term SLI (e.g., Bishop et al., 2014). Furthermore, these assessments are still standardized in nature and do not follow the best evidence guidelines for multilingual assessment in clinical practice that recommends using non-formal assessments including functional assessment. These guidelines were not only presented to reduce the chances of over and under diagnosing individuals from diverse populations due to the biased norms, but also to ensure children with pragmatic and functional challenges prevalent in diaspora contexts get identified for services when needed. Even in cases in which clinicians use these alternative assessment tools recommended for assessment of individuals from linguistic and culturally diverse backgrounds, speech pathologists working in the U.S. and Canada need to address specific factors in their search for evidence to inform their clinical decisions as follows.

The next section outlines linguistic and social factors related to the assessment of

Arabic speakers in diaspora spaces that are key factors in developing a culturally and linguistically responsive assessment and intervention plan for Arabic-speaking individuals in diaspora space.

Dialectal Differences

The first consideration clinicians need to take into account in identifying the relevant evidence to inform their assessment and intervention for Arabic speaking individuals is the dialectal differences among Arab Americans. Arab Americans may be affiliated with different Arab countries of origin that correspond with different dialects of which some are mutually unintelligible for those Arab Americans who use Arabic (Khamis-Dakwar, 2019). Based on the U.S. Census 2013 report, Lebanese and Egyptians make up the largest group of Arab Americans, 32% and 11.8% respectively.

An analysis of ASHA's (2022) reported demographics of its speech language pathologist members who are self-identified as multilingual service providers, shows that these dialectal differences are not specified in the description of the 295 speech pathologists identified within this report. Within this group of 295 Arabic-speaking SLPs, there is a different number of speakers of different dialects, such as Palestinian or Jordanian clinicians, comparable to the authors of this paper, whose dialects are mutually unintelligible for Moroccan and Algerian speakers. Consequently, policies for identifying bilingual clinicians to serve Arabic speakers do not account for this critical part of an Arab linguistic profile leading to situations of which SLPs are assigned to work with an Arab

client as a bilingual clinician who shares the language and culture with the individual they are supporting, only to learn they do not have any mutual intelligibility based on their dialectal backgrounds. Indeed, the first author faced situations where she was asked to evaluate the language of a Moroccan student and had to call a Moroccan linguist colleague to help with interpretation during the session. This is in spite of her repeated explanation of the fact that she speaks Palestinian dialect and would only be able to evaluate speakers of Jordanian, Palestinian, Lebanese, and Egyptian dialects without the help of an interpreter. Dialectal differences play such a central role in the dynamics of an evaluation and would influence the quality of the assessment and intervention provided if the communicative gap elicited by these dialectal differences is not given the proper attention from the first stage of identification and categorization of bilingual Arabic SLPs. As the work on facilitating culturally and linguistically responsive practice moves forward, it is crucial to have policies that would lay the cornerstone of specifying dialectal categories for an inclusive service delivery infrastructure. The offering of better specified categories of bilinguals' linguistic profile is relevant not only to Arabic speakers, but speakers of many other languages, such as Spanish.

Diglossia

The co-existence of Modern Standard Arabic (MSA) along the different dialects in Arabic speech communities, a phenomenon referred to as diglossia (Ferguson, 1959), is another

issue that interacts with the work of SLPs with Arabic speaking individuals in the U.S. and Canada. MSA is a variety of Arabic that is mainly used for formal settings including news broadcasts, prayers, official ceremonies, cartoons, and reading and writing. It is learned through formal education and is hard to master in the absence of access for formal opportunities to learn MSA. Hence, many Arab Americans actually grow up with competency only in their home Arabic dialect and limited or no competency in MSA since they did not have any formal opportunities to learn it. Additionally, many Arab Americans would be literate in English but cannot read and write in Arabic in its MSA form given the limitations in accessing and learning it. Indeed, many Arab Americans seek learning MSA later as adults in college (Rouchdy, 2002) and there is a growing scholarly interest in evaluating their learning and language profile given their heritage learner status which would be expanded in the following section.

The underlying assumption of MSA mastery to indicate mastery of Arabic interchangeably, specifically in the field of teaching Arabic as a second or foreign language, in the U.S.A and Canada, conceptually affected the structural certification process for SLPs seeking bilingual certification in Arabic in states that require such bilingual certification. For instance, the New York State Education Department (NYSED) for Arabic bilingual caregivers requires clinicians to pass the Bilingual Education Assessment (BEA) for the targeted language of their certification application. The examination of the linguistic proficiency of educational professionals (SLPs and teachers)

seeking bilingual certification in Arabic is in MSA, a normative expectation for proficiency that is irrelevant and inaccessible to most Arab Americans. This norm setting manifestation to the practice of certification is so loosely connected to the reality of Arabic language use in the U.S. because assumptions of use of MSA by Arab Americans for communication and utility of this variety for speech pathology services are unsound. An authentic approach to appropriate informed policies connecting the linguistic knowledge and use of Arabic in the diaspora is a level of rigor needed to achieve the ultimate goal of providing culturally and linguistically responsive practice to Arabs in the diaspora. However, the current certifications and focus on the formal MSA variety for institutional assessment is a barrier for having Arab American clinicians fit into the requirements of the establishment to be able to serve their own communities. There is a need to allow pathways for Arab American clinicians competent in their Arabic dialect to get acknowledged and certified as bilingual therapists. A more rigorous approach to examining Arabic language proficiency needs to be implemented to count for the reality of language use and mastery in Arab American communities to guarantee their access to bilingual services. In the absence of an alternative approach, it is difficult for those numbered Arab American SLPs who are proficient in a specific Arabic dialect to serve their own communities given restrictions of certifications that prevent them from providing services without passing MSA proficiency assessment; a variety most Arab

Americans do not know.[3]

This institutional effect transcends to impact non-Arabic speaking clinicians attempting to gain knowledge to guide their work with Arab Americans. The two authors had ample examples from when they were approached by clinicians in the U.S. seeking professional consultation and support in their work with an Arab client. In many of these consultations, the authors recognize how common it is for clinicians to retrieve MSA based information in their attempt to fill in their knowledge gap related to Arabic. Appendix A shows a specific example that exemplifies the effect of the interchangeable reference to Arabic as MSA in institutional practices, policies and clinical and academic resources in the assessment of an Arabic speaking student. The first author was approached with a clinician assigned to assess a Yemeni student. Appendix A presents the email exchange with the clinician to exemplify the way clinicians may end up retrieving information in MSA to guide their assessment. Hence, there is a need to raise awareness to the differences between MSA and Arabic dialects to enable clinicians to determine the degree to which the information retrieved fits with individuals they work with. Such awareness would be futile if not accompanied with institutional change to the conditions of certifying Arabic bilingual clinicians.

[3] Since knowledge of Modern Standard Arabic may be necessary for working with some cases of Arabs in diaspora with reading impairments in MSA, the authors recommend developing a more flexible certification routes; one that certifies SLPs as bilinguals proficient in Arabic orally, and another one that includes MSA proficiency. In this way, the certification process would not be a barrier to accessing bilingual SLPs in the diaspora who do not read and write in MSA, but are fully proficient in their oral dialect, while acknowledging the need for SLPs with MSA proficiency to work with cases where it is deemed needed.

The first two considerations for assessment and intervention planning in working with Arabs in diaspora spaces focused on linguistic diversity underlined by dialectal differences and diglossic nature of Arabic speech communities. These considerations are followed by discussion of the unique social learning context related to working with Arabs in diaspora space.

Heritage speakers' unique language development

The work of speech pathologists in "diaspora" is in a context that differs from the context in which Arabic-speaking children are raised in the Arab world. We have been observing an increased attention and awareness to the status of heritage speakers; furthermore, distinctive characteristics of language acquisition pathways in that context, compared to second language learning, has also been of importance. Heritage speakers are defined as bilingual individuals of an ethnic or immigrant minority language whose acquisition is either stopped or restricted by formal education in the majority language. The language of the majority in the society takes over in communication, and heritage learners become at ease with the dominant language as the parental language undergoes attrition (i.e. loss/regression of language) (Montrul, 2012).

Understanding the specific pathway of language development in heritage speakers is essential for SLPs since it has direct implication on the assessment of children. Such a direct effect comes from a group in a way that identifies the effect of the social

lived minoritization, racialization, and marginalization experiences of specific speech communities, like Arabic speakers, on the language abilities at different stages of their language development. It is also essential given that Arabic is one of the most commonly spoken non-English languages in the U.S. that is projected to increase (Ortman & Shin, 2011). In fact, the Arabic language is becoming the second most represented language in homes across the U.S. (National Center for Educational Statistics, 2019). For example, Khamis-Dakwar, Ahmar and Froud (2019) examined the production of Arabic dual, regular and irregular plural in English and Arabic in 21 typically developing 5;04- 9;11 years old Arabic heritage speaking children living in New York using elicited production task presented electronically using pictograph cues on an ipad. The results showed that children had better performances in English compared to Arabic. In addition, children's Arabic productions of dual and feminine forms were higher than their productions of masculine and broken plural forms. These findings suggest that expecting mastery of masculine and broken plural as is the case from Arabic speaking children in the Arab world between 5-7 years is not appropriate (For a review read Khamis-Dakwar et al, in press), in evaluating language and speech of Arabic heritage speaking children, given that it either hasn't been developed or has been lost. The dual production assessment may be a better marker for evaluating the Arabic production of heritage speakers of Arabic dialects that exhibit it, since it is early acquired and may be maintained in Arabic speakers. However, given the cross-sectional design of the study, further research was

needed to examine this potential clinical implication. In a follow up study by Khamis-Dakwar et al (in press), a longitudinal case study design in two siblings, aged 2;9 and 5;10 years old, was conducted. The same electronic picture-based elicitation task was administered with the two siblings every three months starting one month post their arrival to the U.S. for a 2 years period. There were sixty items examining Arabic production of singular, dual, feminine plural, regular masculine, and irregular plural along with sixty items examining English production of singular, regular, and irregular plurals. Half of the items presented in each language were targeting real word productions and the other half facilitated elicitation of pseudowords. The results revealed that the two siblings show increased accuracy in plural English production. Not to mention it was more rapid with the increased exposure and use of English post immigration for older siblings, who at the time of immersion in an English dominant environment, had a developed Arabic plural system. Moreover, mastery of regular English formation preceded irregular productions. Production of irregular plurals did not reach 90% correct productions by the end of the data collection. For the Arabic productions on the other hand, the young sibling who at the time of immersion to English dominant environment had shown mastery of feminine, developing dual forms, and no emergence of masculine plural, the results showed maintenance of feminine plural production, variable levels of dual production, and no emergence of masculine and broken plural. In contrast, the older sibling who showed evidence of dual and feminine

plural mastery and emerging masculine plural productions in the first data collection sessions, showed loss of dual and masculine. These abilities were not static and reemergence of forms post homeland visits were observed as well. Reflecting on this example on the study of dual formation in heritage speakers points to the danger inherent in adopting a set of milestones in evaluating the language of heritage speakers in an uncritical way. Indeed, ASHA's (n.d.) bilingual service delivery guidelines stress on the importance of evaluating all languages spoken by a bilingual to be able to differentiate between language difference and disorder stating that "true communication disorders will be evident in all languages used by an individual" (p. 26). While the document highlights that a skillful clinician will be able to account to the effects of dual language acquisition and differential levels of language exposure and use, the document states that "some research suggests that morphosyntactic language development in bilingual individuals may be similar to that of monolingual individuals in rate and order of acquisition (Bedore et al., 2012, cited in ASHA, n.d., p. 32). Similar focus on considering "variability in syntactic structures across languages" (p. 33) examining potential transfer effect of one language on the other is found in the description of assessment of syntactic skills for differentiating differences from disorders within the bilingual delivery guidelines developed by ASHA (n.d.), with no account to the potential effect of differential pathway of acquisition in heritage speakers with the introduction of the language of the dominant environment. The guidelines state the following:

> "Due to the variability of syntactic structures across languages, underlying syntactic deficits will likely manifest differently across languages. Difficulty in development of syntactic structure may also be influenced by the perceptual salience of morphemes and syntactic structures. Children with SLI are noted to demonstrate significant deficits for morphemes with limited perceptual salience (Restrepo & Guiterrez-Clellen, 2012). Additionally, grammatical structures in either language may be influenced by the other (Paradis et al., 2011). Consider if the patterns observed are due an underlying deficit, which may manifest differently across languages, or due to a difference, such as transfer of a grammatical structure from one language to another." (ASHA, n.d., p. 33).

What if a speech pathologist is guided by these recommendations and refers to developmental milestones of plural acquisition in Arabic speaking children in the Arab world to evaluate the status of language development in heritage speakers? Such adoption would lead to over-diagnosing children to have language impairment since the loss or ceased development of dual and masculine forms as evident in the study of plural formation in Arabic heritage speaking children will be overlooked and would have no place in the norms referred to in assessing children from this background. It is important to note that the described work recruited immigrants to the U.S. who are not asylum seekers or refugees who present with unique characteristics of language development making the generalizability of the findings to all heritage speakers including asylum seekers and refugees also in need to be examined. Hence, it is the basic theoretical frameworks and investigations of language development that are in a critical need to be

changed to be inclusive of sociocultural experiences from their research design and analysis (Titone & Tiv, 2021), and they should move away from focusing on language as a static entity to a dynamic system, and turn away from the illusive separation of language from the speaker in the general study of language (Horst, 2020). These theoretical investigations compose the cornerstone knowledge and reference for guiding educational and clinical practice. Moreover, it is conspicuous in not facilitating the development of broader comprehensive assessments of bilingualism that accounts for the multifaceted effects of social factors and the dynamic nature of language development as exhibited in the studies of plural formation in Arabic heritage speakers. Titone and Tiv (2021) call linguists and psycholinguists to "rethink" the bilingual experience to "more fully embrace sociolinguistics and sociocultural experiences as part of their theoretical and empirical purview" (2021, p.5). They offer the systems framework of bilingualism as an alternative design which enables multifaceted examination of bilingualism that addresses interpersonal, (person to person), ecological (neighborhood, school, workplace, organizations, semiotic exposure), societal (societal values, beliefs, and policies) that also accounts for temporal changes to facilitate recognizing shifts over historical or developmental times. Shifting from the normative monolingual hegemonic euro-centric approach to the study of language and language development comes with a series of clinical and educational implications. Such implications would qualitatively change the policy of bilingual language assessment and open up for more culturally

responsive developed practices. This shift would not only facilitate practical changes to the assessment of bilingual language development but the character of language assessment and evaluation in the society.

Trauma cases- refugees and asylum seekers

The last consideration SLPs working in the diaspora spaces may need to address in depth relates to trauma-informed care given the growing number of Arab refugees and asylum seekers in the U.S. The international literature is mainly focused on distinguishing between two main categories of migration based on time, space, and causes of migration. These two categories are migrants versus refugees. In this traditional dichotomous categorization, the main difference between these two groups lies in whether the migration was forced and/or involuntary due to political, social, or economic turmoil in their home country (such as Syrian and Ukrainian refugees to the U.S. and Canada). Whereas immigrants relate more to voluntary migration such as students who migrate to study in the United States and Canada (Robertson, 2019). Within this taxonomy of inquiry, refugees and immigrants are at risk of being impacted by post-immigration trauma, but the risk is doubled for refugees (Sangalang et al., 2019). It should be noted that this categorization is criticized in the literature as it overlooks the process of status making of these categories from a critical sociological orientation (Robertson, 2019). One of the most predictive factors for having post traumatic disorder post immigration are

mainly how long it takes to obtain a legal status and privileges in the hosting country (James et al., 2019). The effects of trauma are variable in relation to the neurobiological consequences of trauma including effects on language and social pragmatics; a topic that has been highlighted in working with individuals impacted by trauma during the pandemic (Hyter, 2021a; Nyvold, 2022). A recent systematic review of the literature on the effects of complex trauma on pragmatic language identified thirty eight experimental studies published in English between 1975-2020 that addressed maltreatment, abuse, neglect, and/or complex trauma which focused on participants younger than 18 years old. The systematic review shows that complex trauma impacts children's cognitive flexibility, inhibition processes, and social pragmatic communication as exhibited in narrative discourse with difficulty in using referential cohesion, perspective taking and belief attribution (Hyter, 2021b), and in autobiographical memory (Brien et al., 2021).

The United States homeland security fiscal year 2020 Refugees and Asylees annual flow report (Baugh, 2022) shows that the largest group of refugees admitted to the U.S. in 2020 come from the Democratic Republic of the Congo, Burma, and Ukraine and reports a steady increase of refugees from Iraq, Syria, and Sudan. This increase is expected to grow with the reopening of the U.S. Citizenship and Immigration Services (USCIS) offices for in-person services and the change in presidential leadership in the U.S. In Europe and Canada, this increase in refugees from Arabic-speaking countries is more evident (Hameed et al., 2018).

Syrians are the seventh among the top 10 source countries for permanent residents admitted to Canada in 2019 (Immigration, Refugees, and Citizenship Canada, 2020). Knowledge gained on language development and use in children who were impacted by trauma highlights the need for trauma-informed understanding of language use in Arabic-speaking refugees following an investigation of effective and efficient intervention programs for this population, given the potential effect of trauma on their social communication and cognitive functioning. SLPs working in the diaspora searching for evidence to inform their clinical decisions in working with Arabic speaking refugees will find that there is scarce research on clinical language assessment and intervention for Arabic-speaking refugees. There is a growing literature focused on refugee participants in Europe and Canada, promoted by the BiliSAT (Bilingual Language Development in School-Age Children with/without Language Impairment with Arabic) (Chilla, S., & Hamann, C. (n.d.) and BILAD (Bilingual Language Development: Typically Developing Children and Children with Language Impairment) (Carl von Ossietzky, Universitat Oldenburg(n.d.)) projects. These studies are mostly focused on the identification of specific language impairment (SLI), a term less used in clinical practice, cross linguistically using the LITMUS test as a universal test for SLI. These cross linguistic investigations are focused on syntax which, in spite of its own contribution to the literature, may be peripheral for the central communicative needs for refugees and evidence needed to inform care plans for their growth based on what we know about the

effects of complex trauma on language and social pragmatics (see Hyter, 2021a). Nevertheless, the latest reports in the literature exhibit use of tests that are less relevant to address the use of language. Along with the pragmatic limitations, children, who are impacted by trauma, are reported to exhibit the effect of the documented cognitive flexibility and inhibition on performing linguistic tasks in standardized assessments. For example, Hammann et al. (2020) present findings from administering different language assessments including the LITMUS tests to heritage and refugee children in Germany. One main strength of the testing modeled in this study is assessing both languages: the native language of the heritage or refugee participating children (i.e., Arabic) as well as the language of the host country (i.e., German). The study also reported on the use of adapted versions of tests developed in other contexts which is commonly reported in light of the shortage in standardized assessments in Arabic. For example, the study exhibits the use of a standardized test developed for Lebanese-speaking children in Lebanon who live in a bilingual French- Arabic environment that does not apply to Syrians in Syria or refugees in Germany (i.e., Zebib et al, 2017, cited in Hamman et al., 2020, p.1384). The selection of the Lebanese dialect as the closest dialect to the Syrian dialect is a logical decision. A similar approach of relying on standardized assessments adapted to German for evaluating German (i.e. TROG test) was reported in the paper as well as use of tests developed for German while reporting raw scores. The use of adapted standardized assessment with multilingual and culturally diverse populations has been

pointed out as a problematic practice in the discipline for a long time for several reasons including its reliability for evaluating the process of language learning in bilinguals and high false-positive findings (e.g. Hyter & Salas-Provance, 2023; Konhert et al., 2020; Norbury, 2014). Hence, alternative and functional assessments are recommended for assessing bilinguals and culturally diverse populations in general. This recommendation would be more critical for the assessment of children impacted by trauma due to the documented pragmatic effects which necessitate ensuring the identification of pragmatic and functional difficulties children exhibit.

Hence, as stated earlier, these scholarly reports, which are expected to model best practices in the field and promote change in the field, reflect the basic theoretical frameworks and investigations of language development that still follow the positivist approach. Particularly such an approach tends to observe language as a static entity in its inquiry while overlooking the dynamic nature of language development and processing pending the sociocultural factors and changes to language exposure and use in contexts of learning (Horst, 2020). The positivist approach has been widely criticized from culturally and linguistically responsive practice lenses specifically for its role in pathologizing differences (Hyter & Salas- Provance, 2023). Having research studies that aim to examine the performance on a test that is not consistent with best practice in the assessment of culturally and linguistically diverse populations is not consistent with best practices. Moreover, the developing knowledge of the communicative strengths and

weaknesses in refugees and other populations impacted by trauma highlights the problematic nature of studies that aim merely to identify predictors of performance on such tests is problematic. This is because it limits access to relevant and comprehensive knowledge of language abilities in the different populations, such as the prescriptive categorization of heritage and refugee status in investigating learning German in the specific study outlined. Although this developing trend in the literature related to the assessment of bilinguals using the LITMUS test specifically for informing theoretical questions related to the nature of impairment in SLI/DLD is interesting, SLPs need to be cautious in depending on Non-word Repetition Task (NWRT) and Sentence Repetition (SRT) tasks. This is because relying on such tasks as presented in these studies would model to clinicians an assessment that is limited to syntactic knowledge and will render the administration of a comprehensive assessment relevant to the nature of trauma effects on language and cognitive functioning. A more relevant and comprehensive assessment can be achieved using dynamic assessment, and other alternative informal assessments such as speech and language sample analysis, and curriculum-based assessment that may inform clinicians on the child's language abilities while accounting for the effect of trauma, linguistic and social demands on language functioning. The tendency to focus on a standardized assessment that mainly enables categorizing children's abilities while providing less direction to support them is rooted in the history of institutionalized language assessment and speech pathology practice (see St.Pierre & St. Pierre, 2018).

To learn about best practices in working with Arab refugees, we referred to clinicians working in the field with refugees in the United States. Indeed, many SLPs in the diaspora took the mission of supporting refugees and acted to address their needs. For example, Manal Sabri, an Arab American SLP who was raised in Jordan offered free assessments for the Syrian refugee committee in Tucson, Arizona (Hutchims, 2018). In an interview with Manal Sabri asking her to reflect on her work with the Syrian refugees and to share her recommendations to clinicians based on the expertise she developed. She informed us that ever since she started working with the community of Syrian refugees, the beginning of a long life learning journey has started as it is necessary for her to conduct research on working with refugees and other marginalized communities. This included BIPOC communities, who are also impacted by trauma, constant change, instability, and systematic discrimination, to be able to address the challenges of refugees in context of trauma and life changes. Such changes presented in the lives of refugees are critical to focus on, compared to the traditional evaluation of language abilities in decontextualized manner in isolation. To work effectively with refugees demands an understanding of the lived experiences refugee communities grapple with to understand that their challenges are ongoing, unlike immigrants who may mainly face challenges at the early stages post arrival. It also demands understanding the grief, mourning, displacement, search for stability, limited resources emotionally, language barriers, transportation barriers, bullying, resistance and social isolation that are inherent in the

experiences of refugees from their past, present and expected future. The guidelines for working with refugees based on the experiences shared by Manal exemplify that its success is dependent on discarding the positivist approach and being engaged in understanding that the status quo of educational and clinical services is not helping children develop their capacities and thrive. One other framing change relates to the need to shift from a focus on individuals to a community-based focus. To many scholars in SLHS, this is the direction we must take. Such radical collective change in the services provided by speech therapists is necessary to maintain relevance of the services provided in the realities of the current status of speech pathology services and its negative impact at the individual and social levels. The understanding of the current contribution of doing our work to facilitate communication and options for people with communication disability to thrive through understanding of the larger ecological, economic, and social contexts of their lives is clearly realized in working with refugee communities. Based on this understanding of the need to learn and rethink the conceptualization of the work of a speech language therapist, Manal Sabri (M. Sabri, personal communication, June 20, 2022) provided the following operational recommendations for working with refugees and their families, based on her revered experience and expertise

1. Start always by interviewing families and learn from them about the experiences they had and their current day to day experiences. Learn from parents about the child's communicative behavior at home with them (how they play at home, how

they express themselves when they seek support, etc.) and what their concerns are. There is a tendency to focus on educational concerns within neoliberal communities and it is important to focus on parents' concerns and how the child functions at home. It is also recommended to learn from parents about the child's communication abilities in comparison to pre- trauma/immigration stage? Did their skills regress or were they maintained or improved through the loss and trauma experienced? Learn about the child's history of language exposure, the length of exposure to different languages. Learn about the child's age of arrival and levels of schooling experiences and literacy-based engagements.

2. Understand that the work cannot be done solo and you need to work with professionals and community members to give the individuals you are working with effective care

3. There is a great value of parents' involvement and make sure you include parents empowerment and education as part of your intervention plan

4. Follow cultural responsiveness practice principles in all care provided to individuals and their families (i.e. in counseling, in assessment, and intervention services)

5. Play based assessment is recommended. Make sure to take input from parents to identify sensitive topics or toys that should be excluded from the play-based assessment and intervention plan.

6. Conduct your own observation of the child interacting with parents, with

peers, and in other contexts

7. Standardized language assessments are not recommended but rather use alternative assessments including dynamic assessment.

8. Manal highlights that the success in facilitating a refugee to thrive does not depend on the work of one person, but whole systems and a lot of the work we do would involve advocating for school-based support towards success (such as provision of counseling, Response to Intervention (RTI), add on services options) and not wait for the child to fail to be allowed to provide needed care and support for success. Manal calls for having a case manager specifically for schools and not only for general services.

9. Make sure you work with an interpreter who speaks the family's dialect and trained to work with health care providers

10. Social emotional challenges are key challenges that cannot be overlooked

Our work has a very real impact on the lives of the refugee community members and on our humanity. There are variable outcomes that refugees exhibit depending on the various dimensions of the trauma effect, age of arrival, parents' education, and systematic support present for the community. We should be committed to providing the support for all and act while balancing the expected meaningful change each family may be able to have given the context of their past and present experiences.

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Appendix A: An example of an SLP consultation with one of the paper authors drawing on their Arabic language knowledge and expertise.

Hi XXX,

Sorry I didn't listen to this earlier. I just got a chance to hear the narrative and check all the documents you shared with me.

I have to highlight to you that I speak Palestinian Arabic and it differs from Yamani dialect. So there were some lexical items that I don't know how they are pronounced in Yamani and could not tell if it's intelligible.

Please find my answers

below – XXX

On Fri, Mar 22, 2021 at 3:57 PM XXXXXX <XXXXXXX@gmail.com> wrote:

Hi XXX

Thanks again for doing this and lending me your ears and expertise on a language that I really know very little about. I included a lot of information just in case you had questions and needed it. Of course I don't want you to spend a ton of time of this, anything you can provide is helpful, I just included it in case it answered any questions as you were listening. I CAPITALIZED my main questions below:

So a little history:

This is a ten year old Yemeni child who lived in Yemen until he was about 4/5 displaced by the war, then he lived for 2/3 years in a refugee camp in XXX with his XXX and XX siblings, and then moved to the US, where he has been for the last 3 years (with his two parents, siblings, and extended family (i.e. uncles, and cousins). In Yemen, when he was about XXish, he was very near a blast which made him progressively lose his hearing in his XXX ear where he has a profound hearing loss (90 decibel is when

he begins to hear) but his XXX ear is seemingly intact (averages hearing in the 0-10 decibel range with a dip in the 8000 frequency to 30). He does report that when there are multiple sources of sound in a room he hears a buzzing. So tinnitus? maybe? He says it doesn't bother him all the time but when there are multiple sounds...he hates it. He has an FM system. He doesn't want to use it because ppl make fun of him. He never received formal schooling until he came to the US. He attended school in Yemen (kindergarten) for like two months before the blast incident and they moved shortly thereafter to the camp.

This boy went through a lot. I would like to note that based on this history the child probably didn't have access to Modern Standard Arabic which is mostly learned in school. The questions list in the ENL teacher report you shared with me are actually in Standard Arabic and many of the "errors" the child is showing in the sentence repetition seem to be driven by the fact that he's asked to repeat sentences that are not in his language repertoire.

For example, the teacher points that the child deletes the glottal stop in the sentence " I don't know Arabic as i should" he deletes the a in LUGHati - first of all lugha is a standard word that he probably is not familiar with given his limited education experiences backhome and the a in this case is a diacritic that is meaningless in spoken dialect and not used in spoken dialect.

The production of arabi instead of arabiya seems to be falling in the same pattern - Arabiya is the feminine form of Arab and in standard Arabic lugha(language) is feminine but in spoken Arabic we use Haki (for speaking) and it's masculine. The deletion of the a in Arabia is I think is a result of the fact that he didn't learn Standard Arabic.

Same thing for I don't know and I don't understand. They are presented in standard Arabic " la Aaref" " la Afham" this is the morphological pattern for singular, present in standard Arabic but in spoken Arabic it's " ma naArifesh" "la fhamesh" (I'm not speaker of the dialect though so I hope I am right) - so these deletions are simply because the presented sentence is not in the dialect the child speaks and

I think it's a case of transfer of spoken Arabic knowledge in the productions of these MSA structures

The first two sentences in how to introduce yourself match the way these productions are spoken and no wonder the child didn't have any difficulty with them. The last three structures in this part are in standard Arabic and do not overlap with the spoken dialect

The nice to meet you structure- is very formal

The An that the child deleted in the sentence I have to go is not produced in the spoken version which would be " Lazem AruH"

Teacher complaints: Kiddo is quick to give up when learning things; particularly reading, he is not picking it up well. I'm attaching here a sheet of a mid-year assessment of his ENL teacher who lived in XXXX (Arab country) for 7 years so seems to be pretty sensitive to cultural issues and takes them into account). The teacher told me that they have, for example, been teaching him the color names for a long time, and he is still not consistent with it and I saw it when I attempted a RAN task. He just couldn't remember blue...I asked about his eyes (if he was color blind - I tested it and he could tell they were different, he just couldn't remember the name), I asked if it was cultural and if blue and green could be considered the same - they said no, it's definitely different. And these gaps occur with letters too as you'll see in the teacher report.

Testing:

I had an interpreter with me who absolutely did the best she could and anytime I have a need for an interpreter I call her because she seems to be the most interested in helping the best way she can but of course, being very helpful, she might be cuing him to say things that I'm not sure about.

yeah the interpreter was very good

She provided questions to ask for expanded information when he finished descriptions such as telling him how many times will you wash her hair after he said that he first will open water and something

above me (I didn't understand the word but it's probably because of my lack of knowledge of the dialect) then I will put soap and pour water on top of her and do like this and then ... wash her. when he finished describing what he will do to wash XX (his younger sister name); the interpreter asked him how many times will he wash her hair? He answered a lot so that the soap gets off

Then she asked him what would be your next step when you finish washing her hair what will you do? He

Greetings and Common Phrases: I'm attaching a page with Arabic greetings and phrases. She told me that when the kiddo speaks, he cuts the a sound. I don't have a recording of this specifically but I have a circling on the error and she made notes about it (its the last page on the ENL report attachment). MY FIRST QUESTION: IS THIS PROBLEM SIGNIFICANT ENOUGH THAT IT IS AFFECTING HIS INTELLIGIBILITY IN ARABIC? It doesn't seem to be, and his intelligibility in English you'll see is pretty good.

no ! It's not. See comments earlier about standard Arabic versus spoken dialect

Sequencing Narrative: So this is the audio that I have included. You will see a PDF below of an image I was showing the kiddo (a mother giving her child a bath). We practiced several narratives before this one and on a different day. He initially didn't want to be very chatty but this is the chattiest he was when explaining how his mother or he (the interpreter said that he was always referring to the narrative in first person) gives his younger sister, XXXXX, a bath. Maya is his 5 year old sister, who is a bit more independent in the bath (apparently she is showing many other speech and language issues so I'm sure they will refer her to me at some point). MY QUESTIONS: IS HE INTELLIGIBLE? DOES THE NARRATIVE MAKE SENSE? DOES IT COMPARE WELL TO THE ENGLISH NARRATIVE? IS THE SYNTAX HE IS USING APPROPRIATE? DID THE INTERPRETER HELP HIM TOO MUCH?

i didn't get the English narrative. But the story grammar is complete. He uses first and then

and that's it at the end. He does not expand on detailed descriptions and used mainly

coordinated sentences and and and

I also heard one complete complex sentence using because

I am not sure about the intelligibility because some of the words I didn't know.

Would you want to administer an articulation test to him and send it to me? I can tell you more about his speech if you do that. He tends to use giant words " this" " and that"

Based on what I hear I think the main weakness is lexical.

Thanks again so much Reem. I look forward to hearing soon and have a great weekend!

thank you for being so professional and taking this work seriously and for trusting me in sharing my feedback XXXX

Yemeni Arabic Dialect Crash Course

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