

EDITORIAL

Migration and dementia in Europe: towards a culturally competent approach and provision of care

Marco Canevelli^{1,2} and Nicola Vanacore²

¹*Dipartimento di Neuroscienze Umane, Sapienza Università di Roma, Rome, Italy*

²*Centro Nazionale per la Prevenzione delle Malattie e la Promozione della Salute, Istituto Superiore di Sanità, Rome, Italy*

In 2019, 272 million international migrants were estimated worldwide [1]. The need of characterizing the health attributes of this increasingly large share of the population is growingly regarded as a public health priority [2]. In particular, the ongoing demographic transition (i.e., population aging) is progressively changing the structure of migrants' populations. Accordingly, the attention of the scientific community and policymakers is gradually extending to older migrants [3] who, in 2019, accounted for 12% of overall international migrants [1]. Similarly to their native counterparts, migrants are increasingly exposed to the risk and burden of chronic, disabling diseases and conditions including dementia and cognitive disorders. The occurrence of these disturbances in individuals with a migration background might assume special relevance under a clinical, societal, and healthcare perspective [4].

To date, the complex relationship between migration and dementia has been mostly explored in the ethnically variegated populations living in the United States. Several studies have in fact shown that the migrant status influences dementia risk and that some migrant and minority groups have a higher likelihood of developing dementia [5]. These observations have recently been extended to the European context [6]. A systematic review and meta-analysis of epidemiological studies comparing the prevalence/incidence of dementia in natives and migrants in Europe, provided two main results: i) dementia is likely largely underdiagnosed among migrants; and ii) some migrant groups might have an increased risk of dementia as compared to natives.

Despite major advancements in diagnostics and increasing awareness, dementia remains largely underdiagnosed worldwide [7]. The rate of underdetection is likely even higher in migrants due to diagnostic challenges and limited use of dedicated services [8]. The hypothesis that dementia may be largely underdiagnosed among migrant individuals in Europe arises from the discrepancy of the results obtained in population-based

and registry-based studies [6]. In fact, when the presence of dementia is ascertained at the community level by adopting culture-sensitive cognitive tools and/or procedures (e.g., making a diagnosis of dementia masked to the ethnicity or migrant status of participants), higher prevalence rates are observed in migrants and minority groups relative to natives. On the contrary, in studies based on healthcare records and registries, dementia emerges as less prevalent in foreign-born individuals who also have a reduced likelihood of receiving dementia treatment. Two recent registry-based studies not included in the above-mentioned meta-analysis have provided additional evidence supporting such apparent lower dementia frequency among migrants living in Europe. In a register-based study conducted in the overall population of older people living with dementia in Denmark in 2012, the observed dementia prevalence was significantly lower in non-Western (1.4%) and Western migrants (1.5%) as compared to Danish-born individuals (2.7%) [9]. A cohort study including all adults aged 45 years and older in Sweden documented lower incidence of dementia among both male migrants (HR 0.85, 95% CI 0.83-0.88) and female migrants (HR 0.93, 95% CI 0.91-0.95) in comparison to their Swedish-born counterparts [10].

On the one hand, these apparently conflicting results confirm that the clinical approach to cognitive disturbances in migrants requires the adoption of culture sensitive instruments and procedures. Most of routinely adopted cognitive screening and assessment tools have been developed in Western contexts and can be influenced by the language, educational level, and cultural background of the individual [11, 12]. Their use in migrants can therefore potentially result in a biased cognitive examination and contribute to dementia misdiagnosis. In light of the ongoing and future sociodemographic transformations, it is instead imperative to adapt services and procedures to the growing diversity of our populations. Encouragingly, several cross-cultur-

al cognitive tools have been developed and validated in multicultural European samples and are starting to be adopted in “real world” memory clinics [13, 14]. Moreover, the barriers and inadequacies that may challenge the provision of care to migrants with dementia are being explored with ad hoc surveys and qualitative studies targeting both professionals, migrants with cognitive disturbances and their families [15, 16]. These research efforts represent fundamental preliminary steps to adjust existing dementia facilities to the evolving attributes and needs of all older Europeans.

Conversely, the lower dementia prevalence estimates among migrants found in registry-based studies are likely affected by the fact that these individuals have a reduced access to healthcare resources (e.g., services, treatments) and are therefore less frequently captured by healthcare records and databases. Migrants and minority groups have been shown to underuse and present later to dementia services [17] and diverse barriers to medical help seeking for dementia have been identified [8]. Consequently, the underdiagnosis of dementia, commonly documented in nationwide registries at the general population level [18], may be even higher among migrants.

Based on the discussed body of evidence, migration emerges as an important determinant of individual trajectories of cognitive functioning, similarly to what already observed for many health outcomes [2]. However, understanding migration as a dementia risk factor is currently not legitimate and potentially misleading. In fact, the migratory background may influence the one's susceptibility to cognitive decline by affecting diverse at-

tributes and factors that have already been individually associated with dementia risk. They include educational level, socioeconomic status, health-related behaviors, cardiovascular diseases, stress exposure [19]. Moreover, there are several related variables and circumstances, such as country of origin, ethnicity, acculturation, social support, reason for migration, that are extremely heterogeneous and impede to approach the phenomenon under a unitary perspective. In this regard, a greater effort is needed to collect data on these determinants and to fill the existing evidence gap concerning those migrant groups such as refugees, asylum-seekers, and undocumented migrants, that are more marginalized and constantly underrepresented in research. Dementia risk should be assessed at the individual level, by adopting a life-course perspective that implies the interaction of multiple factors with protective or triggering role. The use of reductionistic and categorical frameworks may instead result in unbalanced risk assessments and even contribute to prejudices and stigmatizing behaviors among and towards migrants. Migration should be more properly intended as a “modifier of dementia risk” [20]. As such, it constitutes a further layer of complexity that should be adequately captured to deliver person-centered, culturally competent prevention, support, and care.

Acknowledgements

Marco Canevelli is supported by a research grant of the Italian Ministry of Health for the project “Dementia in immigrants and ethnic minorities living in Italy: clinical-epidemiological aspects and public health perspectives” (ImmiDem)(GR-2016-02364975).

REFERENCES

1. United Nations – Department of Economic and Social Affairs, Population Division. International Migration 2019: Report (ST/ESA/SER.A/438); 2019. Available from: www.un.org/en/development/desa/population/migration/publications/migrationreport/docs/International-Migration2019_Report.pdf
2. Abubakar I, Aldridge RW, Devakumar D, Orcutt M, Burns R, Barreto ML, et al. The UCL-Lancet Commission on Migration and Health: the health of a world on the move. *Lancet*. 2018;392(10164):2606-54. doi: 10.1016/S0140-6736(18)32114-7
3. WHO Regional Office for Europe. Health of older refugees and migrants. 2018. Available from: www.euro.who.int/en/publications/abstracts/health-of-older-refugees-and-migrants-2018
4. Canevelli M, Lacorte E, Cova I, Zaccaria V, Valletta M, Raganato R, et al. Estimating dementia cases amongst migrants living in Europe. *Eur J Neurol*. 2019;26(9):1191-9. doi: 10.1111/ene.13964
5. Moon H, Badana ANS, Hwang SY, Sears JS, Haley WE. Dementia prevalence in older adults: Variation by race/ethnicity and immigrant status. *Am J Geriatr Psychiatry*. 2019;27(3):241-50. doi: 10.1016/j.jagp.2018.11.003
6. Selten J-P, Termorshuizen F, van Sonsbeek M, Bogers J, Schmand B. Migration and dementia: a meta-analysis of epidemiological studies in Europe. *Psychol Med*. 2020 (in press). doi: 10.1017/S0033291720000586
7. Lang L, Clifford A, Wei L, Zhang D, Leung D, Augustine G, et al. Prevalence and determinants of undetected dementia in the community: a systematic literature review and a meta-analysis. *BMJ Open*. 2017;7(2):e011146. doi: 10.1136/bmjopen-2016-011146
8. Mukadam N, Cooper C, Livingston G. A systematic review of ethnicity and pathways to care in dementia. *Int J Geriatr Psychiatry*. 2011;26(1):12-20. doi: 10.1002/gps.2484.
9. Stevnsborg L, Jensen-Dahm C, Nielsen TR, Gasse C, Waldemar G. Inequalities in access to treatment and care for patients with dementia and immigrant background: A Danish nationwide study. *J Alzheimers Dis*. 2016;54(2):505-14. doi: 10.3233/JAD-160124
10. Wändell P, Carlsson AC, Li X, Gasevic D, Sundquist J, Sundquist K. Dementia in immigrant groups: A cohort study of all adults 45 years of age and older in Sweden. *Arch Gerontol Geriatr*. 2019;82:251-8. doi: 10.1016/j.archger.2019.03.003
11. Milani SA, Marsiske M, Cottler LB, Chen X, Striley CW. Optimal cutoffs for the Montreal Cognitive Assessment vary by race and ethnicity. *Alzheimers Dement*. 2018;10:773-81. doi: 10.1016/j.dadm.2018.09.003
12. Ranson JM, Langa KM, Llewellyn DJ. Predictors of dementia misclassification when using brief cognitive assessments. *Neurol Clin Pract*. 2019;9(2):109-17. doi: 10.1212/CPJ.0000000000000566
13. Nielsen TR, Andersen BB, Gottrup H, Lützhøft JH, Høgh P, Waldemar G. Validation of the Rowland Univer-

- sal Dementia Assessment Scale for multicultural screening in Danish memory clinics. *Dement Geriatr Cogn Disord*. 2013;36(5-6):354-62. doi: 10.1159/000354375
14. Nielsen TR, Segers K, Vanderaspolden V, Beinhoff U, Minthon L, Pissioti A, et al. Validation of a European Cross-Cultural Neuropsychological Test Battery (CNTB) for evaluation of dementia. *Int J Geriatr Psychiatry*. 2019;34(1):144-52. doi: 10.1002/gps.5002
 15. Nielsen TR, Vogel A, Riepe MW, de Mendonça A, Rodriguez G, Nobili F, et al. Assessment of dementia in ethnic minority patients in Europe: a European Alzheimer's Disease Consortium survey. *Int Psychogeriatr*. 2011;23(1):86-95. doi: 10.1017/S1041610210000955
 16. Canevelli M, Lacorte E, Cova I, Cascini S, Bargagli AM, Angelici L, et al. Dementia among migrants and ethnic minorities in Italy: rationale and study protocol of the ImmiDem project. *BMJ Open*. 2020;10(1):e032765. doi: 10.1136/bmjopen-2019-032765
 17. Cooper C, Tandy AR, Balamurali TBS, Livingston G. A systematic review and meta-analysis of ethnic differences in use of dementia treatment, care, and research. *Am J Geriatr Psychiatry*. 2010;18(3):193-203. doi: 10.1097/JGP.0b013e3181bf9caf
 18. Rizzuto D, Feldman AL, Karlsson IK, Dahl Aslan AK, Gatz M, Pedersen NL. Detection of dementia cases in two Swedish Health Registers: A validation study. *J Alzheimers Dis*. 2018;61(4):1301-10. doi: 10.3233/JAD-170572
 19. Yaffe K, Falvey C, Harris TB, Newman A, Satterfield S, Koster A, et al. Effect of socioeconomic disparities on incidence of dementia among biracial older adults: prospective study. *BMJ*. 2013;347:f7051. doi: 10.1136/bmj.f7051
 20. Albert SM. Immigration: A modifier of dementia risk in old age? *Am J Geriatr Psychiatry*. 2019;27(3):251-3. doi: 10.1016/j.jagp.2018.12.014