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RESEARCH ARTICLE

How are early-career dementia researchers considered and supported on a national level by dementia plans and organizations? An overview of global policy approaches

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Abstract

INTRODUCTION: Despite representing an essential workforce, it is unclear how global policy efforts target early-career dementia researchers (ECDRs). Thus, this study aimed to provide an overview of policies through which ECDRs are considered and supported by dementia plans and organizations.

METHODS: G20 member states were evaluated for their national dementia plan alongside policies of leading dementia organizations. Data targeting support for

ECDRs were extracted and subject to content analysis using inductive coding. Findings were categorized and narratively synthesized.

RESULTS: Only China, Denmark, England, Greece, Northern Ireland, Scotland, Spain, and the United States mentioned ECDRs in their national plan. Additionally, 17 countries formalized ECDR support via dementia organizations. Support efforts included research funding, dissemination and networking, career development, and research advice.

DISCUSSION: Few nations formally recognized ECDRs in dementia plans or through dementia organizations. To facilitate equal prospects for ECDRs, top-down approaches are urged to enhance and align their efforts.

KEYWORDS
Alzheimer's disease, career development, early-career researcher, global, policy, support

Highlights

- Few G20 countries (8/46) had national dementia plans for early-career researchers.
- Targeted support comes from government and nongovernmental dementia organizations.
- Support includes funding, training, advice, research dissemination, and networking.
- Inconsistent definitions and eligibility criteria are barriers to accessing support.
- Global coordination and top-down policy will aid early-career dementia researchers.

1 | BACKGROUND

An estimated 55 million people worldwide live with dementia,[1] and this number is predicted to increase to 150 million by 2050.[2] Dementia has a widespread impact on society and the economy, with global expenses estimated to rise from $1.3 trillion/year in 2019 to $2.8 trillion/year by 2030.[3] The majority of the economic impact is associated with social-sector costs and indirect costs from lost productivity of people with dementia and their careers.[3] Despite this, only 0.34% of the estimated societal costs were budgeted and funded for across six G7 countries – falling significantly short of the 1% advocated by Alzheimer's Disease International (ADI).[4,5] Governments must increase investments into dementia research to mitigate the widespread impacts of dementia.[3] To help attenuate these impacts, the *World Health Organization's Global Action Plan on the Public Health Response to Dementia 2017–2025* was established.[6] Its first target requires that 146 countries develop a tailored response to dementia; as of 2022, 48 nations have adopted a dementia plan.[3] With calls for more funding injections into dementia research and dementia plans to be implemented, it is important to consider the strategies being adopted to support the researchers who will continue these response efforts. As this literature review uncovered, early-career dementia researchers (ECDRs) have yet to be considered in the action plans of the WHO and ADI.

Concerningly, the research field has been grappling with the recruitment and retention of ECDRs. A UK-based report estimated that 21% to 38% of dementia PhD graduates remain in the field.[7] A lack of funding, concerns over job security, and increasingly prevalent short-term contracts were key challenges faced by ECDRs.[7] The instability is apparent across the globe as postdoctoral positions typically last less than 2 years, requiring individuals to move institutions and/or countries to maintain employment.[8] At the policy level, project-based funding and fellowship schemes are usually designed for short-term periods of 1 to 4 years. In addition, grants' eligibility criteria (eg, maximum 2 years following the PhD defense) can restrict ECDRs from applying for funding.[8] In low- and middle-income countries, where nearly 70% of all people with dementia live, significant cuts to funding and academic positions have hindered the development of dementia plans and opportunities for early- and mid-career researchers.[9]

The lack of career security for ECDRs also threatens long-term workforce capacity building. In the UK, two key career pathway "bottlenecks" were identified: the initial transition from PhD student or clinical training to postdoctoral positions and the transition into senior academic roles.[10] Clinician researchers face additional barriers such as inflexible clinical training programs and limited "protected" research time that can hinder publication and grant track records.[7,11] Increasing engagement and participation of health professionals as ECDRs provides an opportunity to build research capacity within multidisciplinary research teams.[11] International and multidisciplinary collaborations are important opportunities to advance knowledge, skill sharing, and career progression.[8] However, limitations to both governmental and non-governmental strategies and initiatives (eg, funding opportunities, fellowship duration) that support ECDRs in undertaking international exchange opportunities may reinforce these barriers to career progression.[12] Furthermore, gender-based inequities appear in funding awards, for example, impacting the progression of women ECDRs into more senior roles, a challenge that might be compounded by intersecting identities.[13] It is important to acknowledge these complexities, although further exploration of intersectionality is beyond the scope of the present study.

In summary, an array of external factors can impact ECDRs' working conditions and career development. These issues can negatively affect the mental health of ECDRs, necessitating an investigation into the level of support offered to them.[14] It is currently unclear whether and how ECDRs are supported on a "top-down" national level through dementia-specific policy approaches. Therefore, this study aimed to provide an overview of policies through which ECDRs are considered and supported by national dementia plans or strategies and dementia organizations (eg, charities and associations).

2 | METHODS

The project is part of the actions from the Alzheimer's Association International Society to Advance Alzheimer's Research and Treatment (ISTAART) Professional Interest Area to Elevate Early Career Researchers (PEERs). PEERs were established in September 2020 to support ECDRs from across the world and stimulate institutional change to help ECDRs develop and progress within the field. For this study specifically, the PEERs continental leads and the Australian and European ECDR working groups led developments to bring together an international network of ECDRs with a multidisciplinary, multicultural, and multilingual background.

2.1 | Eligibility criteria

To gain an overview of policy approaches, we focused on the G20 member states. The G20 is a premier forum for international economic cooperation and plays an important role in shaping and strengthening global governance on all major international (economic) issues. It includes Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Republic of Korea, Mexico, Russia, Saudi Arabia, South Africa, Turkey, the United Kingdom (England, Scotland, Wales, Northern Ireland), the United States (including Puerto Rico), and the European Union (Austria, Belgium, Bulgaria, Croatia, Republic of Cyprus, Czech Republic, Denmark, Estonia, Finland, Greece, Hungary, Ireland, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden). In total, 47 countries were originally included in this study.

RESEARCH IN CONTEXT

1. **Systematic review**: The authors conducted an integrative review of traditional sources (eg, CINAHL database), citation searches of relevant publications, and gray literature from governmental and advocacy bodies (eg, Alzheimer's Disease International). The case for documenting and addressing early-career dementia researchers' (ECDRs) development, retention, and progression was discussed, and relevant sources are appropriately cited.
2. **Interpretation**: Our findings show that most countries lack explicit recognition and inclusion of ECDRs in their national dementia plans or strategies, indicating the need for more countries to prioritize the support of ECDRs in fostering their career development.
3. **Future directions**: While this manuscript advocates for more top-down policy approaches to support the growing and essential workforce represented by ECDRs, further work is required to explore the impact of such policy reforms and support mechanisms for ECDRs.

2.2 | Search strategy and data extraction

Per country, the authors reviewed whether the following national approaches existed and if support for ECDRs were present within these policies, specifically in (i) a national dementia plan/ strategy, (ii) one exemplary governmental dementia organization (eg, dementia association, national institute or center, financed partially or fully by the state/ government), (iii) one exemplary non-governmental dementia organization (eg, dementia charity, societies funded through donations or foundations without governmental funding). If it was unclear from the organizations' website how an association or organization was funded, the authors inquired via email. Names of associations or organizations were intentionally not cited to maintain focus on the types of ECDR support offered rather than the individual organizations providing them.

Publicly available information (ie, websites, downloadable PDFs) was reviewed between February 2022 and July 2022. Information on any consideration of or support provided for ECDRs was extracted. The term "early-career dementia researchers" was defined broadly as criteria across the world were expected to differ, and therefore, equivalent terms such as "junior" or "young" or certain age ranges (eg, <40 years, if defined by the policy/pretenure) were also covered. Then ECDRs mainly included students and researchers up to a level equivalent to lecturers/assistant professors/early-career faculty members. "Support for ECDRs" was defined broadly as any form of targeted efforts for early-career researchers (ECRs) in the field of dementia. Indirect efforts (eg, strengthening dementia research in general without explicitly mentioning ECDRs) and national actions for early-career researchers across domains not specific to the field of dementia were not included in the present study as the aim was to focus on dementia-specific policies targeting ECDRs.

Each co-author reviewed at least one country covering these three policies (ie, dementia plan/ strategy and governmental and non-governmental dementia organization). No double review was performed due to limited language abilities. Identified information was collected in a shared table. If a question arose concerning the extracted data, two co-authors clarified it with the responsible co-author and a consensus meeting was held. The following languages were covered: English, French, Spanish, Portuguese, Italian, German, Dutch, Swedish, Chinese, Polish, and Turkish.

2.3 | Data synthesis

Data extracted from dementia plans and organizations identified to provide ECDR support were coded by one co-author using an inductive approach. Coding was informed by the aim to identify types of ECDR support. Initial codes were refined and finalized through discussions among four researchers. Data were managed by the software Atlas.ti version 22.2.3 (Scientific Software Development GmbH, Berlin, Germany). Finally, data were narratively synthesized, using a textual approach including descriptions, figures, and tables to summarize and explain qualitative information.[15]

3 | RESULTS

3.1 | Review process

In total, 46 of the 47 targeted countries were included in this review. Russian documents were not reviewed for principal reasons (ie, EU funders put embargos in place due to Russia's invasion of Ukraine). Furthermore, only some of the remaining 46 countries could be reviewed fully due to language barriers. Issues appeared especially with websites and documents presented in Arabic, Bulgarian, Croatian, Greek, Estonian, Finnish, Hungarian, Latvian, Lithuanian, Romanian, Slovenian, and Slovakian. While an effort was made to email organizations, policies could not be identified or only partially reviewed for the following countries: Saudi Arabia, Bulgaria, Croatia, Cyprus, Estonia, Finland, Hungary, Latvia, Lithuania, Romania, Slovenia, and Slovakia. The Greek National Dementia Plan was published in English and reviewed; however, the website from the Greek dementia organization was only available in Greek and could therefore not be reviewed.

The overview from ADI[16] and Alzheimer Europe[17] was used to confirm the existence of a country's dementia plan. Although Australia was not included in the ADI overview, its dementia plan (2015 to 2019) was retrieved from the government's website.[18] Moreover, a mismatch occurred for the dementia strategy of Bulgaria, where ADI stated the country has one and Alzheimer Europe stated the opposite. The review process can be seen in Figure 1.

3.2 | Support for ECDRs within national dementia plans or strategies

Of the original 46 countries evaluated, 13 did not have a dementia plan or strategy (Figure 1), and the Finnish and Bulgarian national dementia plans could not be reviewed due to language barriers. Of the remaining 33 countries, eight mentioned efforts in their dementia plans or strategies that directly impact ECDRs: China, the United States (not Puerto Rico), the United Kingdom, namely, England, Scotland, and Northern Ireland, as well as Denmark, Greece, and Spain.

China: The national dementia plan for China is part of China's Action Plan for Healthy China 2030.[19] One of the initiatives related to this is the National Brain Science and Brain Organoid Research Project 2030. Within this project, $59 million are and will be invested in pathology mechanisms and prevention intervention of cognitive impairment and related diseases per year until 2030, with the aim of establishing community and clinical cohorts related to dementia and investigating the mechanisms of AD, anxiety, depression, and sleep disorders. This project includes targeted ECR projects for which only female ECRs under the age of 38 and male ECRs under the age of 35 can apply. In 2021, there were 21 ECR projects for dementia and related diseases, each receiving an investment of $785,000.

The United States: In the United States, the National Alzheimer's Project Act (NAPA) was signed into law in 2011. The first National Plan to Address Alzheimer's Disease was released by the Department of Health and Human Services in 2012 in accordance with NAPA and last updated in 2022.[19] Several recommendations are relevant to ECDRs. "Strategy 1.B: Expand Research Aimed at Preventing and Treating Alzheimer's Disease" includes several funding and training mechanisms such as training and work at the National Institutes of Health (NIH) Center for Alzheimer's and Related Dementias (CARD) and a funding mechanism called the National Institute on Aging's (of the NIH) Small Research Grant Program for the Next Generation of Researchers in Alzheimer's disease and related dementias (AD/ADRD) Research Program.[20] These are awards designed to increase the pipeline of new AD/ADRD researchers with new research ideas. They also fund established researchers who have not previously worked in AD/ADRD, so this funding does not always go to ECDRs. An additional area of focus is training and mentorship for ECDRs and study staff working in clinical trials via the Alzheimer's Clinical Trials Consortium.[20] Another mechanism that awards funding for career development derives jointly from the Department of Veteran's Affairs and National Institute on Aging for clinician scientists, including physicians and clinical psychologists.[20] Furthermore, "Strategy 2.A: Build a Workforce with the Skills to Provide High–Quality Care" incorporates several funding mechanisms primarily aimed at clinicians and direct care providers (eg, long-term care) as well as at diversifying the AD/ADRD research workforce. Puerto Rico, as an unincorporated territory of the United States, has its own dementia plan, which does not mention ECDR support.[20]

United Kingdom: In the United Kingdom, all countries separately publish dementia strategies, with those in England,[21,22] Scotland,[23,24] and Northern Ireland[24] having actions specific to ECDRs. The current

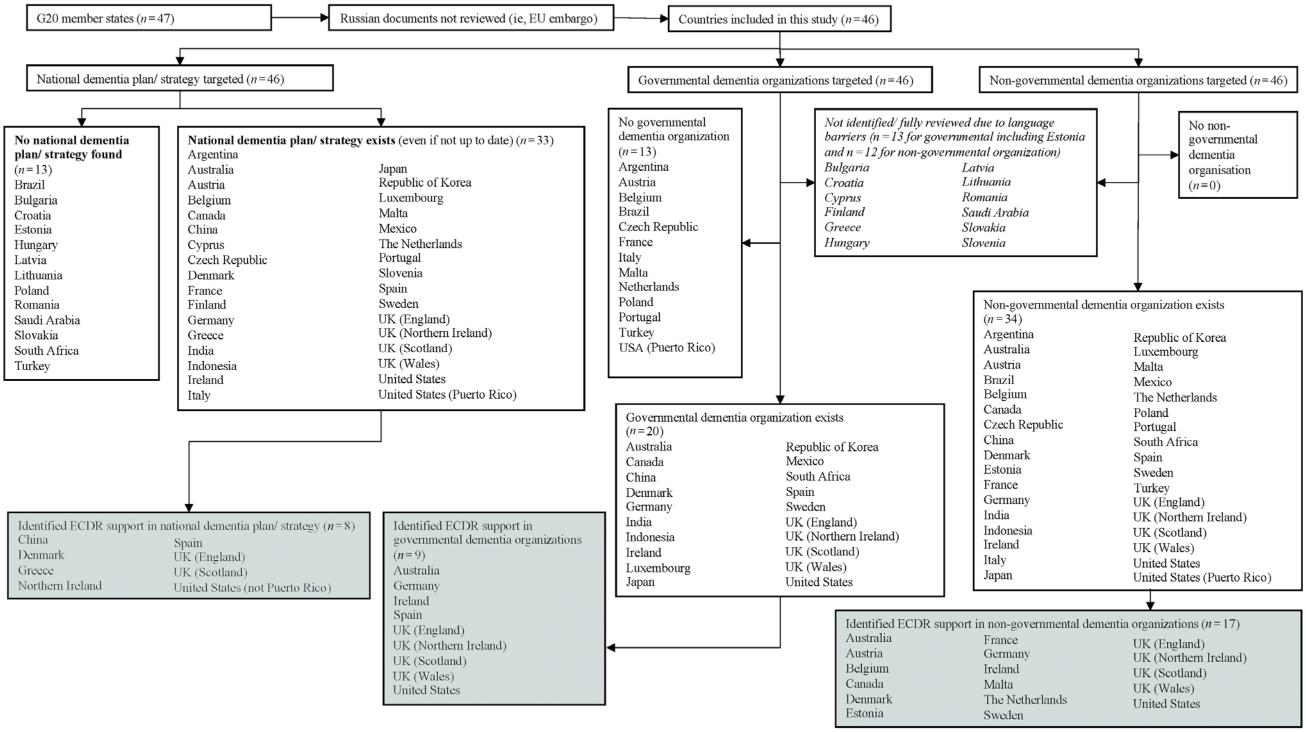

FIGURE 1 Review process: ECDR support or considerations mentioned in national dementia plans/strategies, governmental, and non-governmental dementia organizations. ECDR, early-career dementia researcher.

strategy for England has expired and was due to be updated in 2023; further information has not been disseminated to the public.[21] However, the previous strategy included a commitment to make dementia research "a career of choice within the UK" to encourage young people and clinicians and attract overseas talents.[25] In practical terms, this aim has been realized through increased funding via the National Institute for Health Research and UK Research and Innovation to support increased training positions from PhD to fellowships and longer contracts. Additionally, multiple initiatives support retention and broadening the field to include "Care, Basic Science, and Clinical Research."[21] In its 2019 manifesto, the UK government committed to double the amount of funding available for dementia research within Parliament.[21] Moreover in 2021, the UK All Party Parliamentary Group for Dementia Research recommended that the new dementia strategy include £40 m to support both clinical and preclinical postdoctoral research positions and include more fellowships and grants and resources.[10] The government also recently renewed funding "Dementia Researcher" for an additional 5 years to contribute to support and capacity growth.[26]

Scotland operates separately from England and is currently conducting a national scoping review to investigate the present situation regarding research careers in brain health and dementia.[24] This review will also cover successful international career pathways and analyze their applicability to the Scottish university system. A special focus is placed on the "bottleneck" for ECDRs, particularly at the postdoctoral level. The government and charity sectors recently launched a new program aimed at undergraduates to attract them to dementia and neuroscience via a funded Master of Science program.[23,24]

In Northern Ireland, actions include support for researchers of all career stages, including ECDRs.[24] Researchers can receive guidance to prepare high-quality applications for research on dementia or related neurodegenerative diseases for the NIH peer review via the US-Ireland Research and Development Partnership. Moreover, support for the National Clinical Trials Facility in Belfast is connected to actions of the dementia strategy.

Denmark: The Danish National Action Plan on Dementia 2025, published in 2017, builds on the first plan (2010 to 2014).[27] Section 7.3 of the plan states that "stable conditions, including reliable and adequate funding, are necessary for research to provide answers and solutions to the great challenges facing humanity and society due to dementia." Additionally, the plan highlights that DKK 6.7 million is allocated to elaborate a new research strategy that will set the direction for research in this area towards 2025 and to educate five industry-based PhDs (ie, PhDs employed in industry instead of academia), who will also carry out research in the field of dementia.

Greece: One of the specific objectives of Greece's National Action Plan for Dementia relates to increasing the number of researchers working in the field of dementia and actions linked specifically to ECDRs.[28] Biennial research fellowships with a specialization in dementia (ie, postgraduate doctoral thesis, postdoctoral education) are announced in the form of a scholarship (€30,000 per scholarship, five fellowships per year between 2015 and 2020). In addition, the plan mentions other actions such as creating Centers of Excellence for Dementia with educational and research activities and supporting the inclusion of dementia in undergraduate health studies. However, it should be mentioned that the Greece National Action

TABLE 1 Different forms of support for early-career dementia researchers from governmental and non-governmental dementia organizations per country.

Country	Research funding	Dissemination and networking	Career development and training	Research advice
Australia	✓			
Austria		✓		
Belgium	✓	✓		
Canada	✓			
Estonia		✓		
France	✓	✓	✓	
Germany	✓	✓	✓	✓
Ireland	✓	✓	✓	✓
Malta				✓
The Netherlands	✓	✓	✓	✓
Spain	✓			
Sweden	✓		✓	
UK (England)	✓	✓	✓	✓
UK (Northern Ireland)	✓	✓	✓	✓
UK (Scotland)	✓	✓	✓	✓
UK (Wales)	✓	✓	✓	✓
United States (not Puerto Rico)	✓	✓	✓	✓
Total	14/17	12/17	10/17	9/17

Plan for Dementia has, to our knowledge, not been updated yet (2016 to 2020).

Spain: Finally, Spain adopted a National Plan on Alzheimer's and Other Dementias in 2019 following the WHO Global Action Plan on the Public Health Response to Dementia 2017–2025.[29] One of the main axes (ie, research, innovation, and knowledge) includes an action directly related to support for ECDRs: facilitating universities to create higher education programs (ie, Master of Science) specialized in dementia.

3.3 | Support for ECDRs within governmental and non-governmental dementia organizations

In total, 17 countries were identified to have governmental (n = 9) and/or non-governmental dementia organizations (n = 16) that offer targeted support for ECDRs (Figure 1, Appendix 1 for details). The inductive coding approach across data from all dementia organizations identified four categories of support: (1) research funding, (2) research dissemination and networking, (3) career development training, and (4) research advice. These categories are expanded below, and an overview is provided in Table 1.

3.3.1 | Research funding

The identified dementia organizations offered research funding for PhD students and postdoctoral researchers, subsidizing and awarding the research of ECDRs. For example, organizations gave out research grants to ECDRs up to 6 years following completion of their PhD. Smaller grants included capacity-building grants and pilot grants of 1 or 2 years. These were made available for postdocs with up to 9 years of experience. In addition, organizations granted scholar- and fellowships of 2 to 3 years, mostly for postdoc researchers. One dementia organization dedicated 78 fellowships to ECDRs to facilitate their transition to leadership in dementia research. Lastly, dementia organizations handed out awards of up to €100,000 for outstanding ECDRs in the field of dementia with up to 9 years of postdoc experience.

3.3.2 | Dissemination and networking

Dementia organizations provided different forms of support for dissemination and networking. Research dissemination was, for example, supported by travel grants for ECDRs that enabled them to present at international dementia conferences or a scientific meeting of a national dementia association. Travel grants covered registration, accommodation, transport, and/or catering costs. Eligibility criteria for acquiring these travel grants varied (ie, being under the age of 40, being a PhD student, or doing postdoctoral research up to 2 years after graduation). Moreover, dissemination was facilitated by offering grants for PhD students and postdoctoral researchers that covered article processing charges for publishing research results or offering grants of up to €400 for printing a doctoral thesis in the dementia field. In addition, dementia organizations created networking opportunities for ECDRs. Examples were the organization of an ECR day at the annual conference of the respective dementia association/charity or hosting a networking event for researchers of all career stages in the field of dementia. Other funding bodies established a peer support network for ECDRs and offered ECDRs the possibility to present their work at an organized symposium for ECDRs. Only a few organizations created networking opportunities to foster research partnerships between ECDRs and the public.

3.3.3 | Career development and training

Dementia organizations also offered support for ECDRs in terms of training and career development, for example, by creating internship positions, providing grants for professional training, and organizing webinars. Moreover, they facilitated capacity building and the development of leadership skills by giving ECDRs the possibility to take on volunteer and leadership roles within the organization. In addition, dementia organizations offered special funding dedicated to the academic career progression of ECDRs (ie, funding for applying to become an assistant professor, finalizing a doctoral thesis, or carrying out a research project to obtain a master's degree). Career progression also included the development of a mentoring scheme where ECDRs are matched with mentors in a more advanced career stage, working at a different research institution.

3.3.4 | Research advice

Dementia organizations offered ECDR support also in the form of "research advice." Examples included support in recruiting research participants, preparing funding applications, and general academic advice. In addition, guidance and information on designing impactful research and performing patient and public involvement (PPI) in the context of dementia research were identified. PPI refers to the active involvement of people with lived experience and members of the public in the design and/or implementation of the research.[30]

4 | DISCUSSION

This is the first study to provide an overview of how ECDRs are considered and supported "top-down" through national dementia plans or strategies and dementia organizations, including institutes, charities, or associations. Results show that while most of the reviewed G20 member states ($n = 33/46$) had dementia plans and strategies in place, only a small number ($n = 8/33$) specifically considered ECDRs. Actions for ECDRs in dementia plans mainly included offering individual fellowships and research grants, as well as establishing educational and training programs for students or clinical trainees. For about half of the reviewed countries, dementia organizations that provided specific ECDR support were identified. There, (i) research funding was most frequently offered, for instance, in the form of smaller grants or grants that could be applied for under certain conditions (eg, up to several years following the PhD defense). Additionally, possibilities for (ii) dissemination and networking (eg, travel grants), (iii) career development and training (eg, webinars, internships), and (iv) research advice (eg, recruiting participants, PPI) were present. Whether these initiatives have impacted retention rates or the "bottlenecks" in career progression remains unknown due to insufficient reporting. Further work in this area is warranted, particularly as the present study found only one country (Scotland) to be actively investigating this issue.

Generally, the awareness for the need to target ECDRs through dementia plans may not exist across the globe, as the WHO Global Action Plan functions as the template for most plans and strategies and does not explicitly mention ECDR support either.[6] In addition, it is worth noting that many of the member states considered support for research in their plans that might indirectly support ECDRs. This general support for researchers, however, was not the focus of the present study, and ECDRs represent a distinct group of researchers with specific needs.[31]

When zooming in on ECDR support from national dementia organizations, in Germany, the United States, the United Kingdom, Ireland, and the Netherlands, organizations covered all four categories mentioned earlier, with the US and UK governments offering the most diverse support and the largests budgets for funding. This is likely because both countries have a long-standing tradition of supporting scientific research across a range of disciplines and a track record of high return on investment from research.[32] In contrast, the options for ECDRs were more limited and selective in other countries included in the study. Yet, recent population studies have found aging to be the fastest in Northern Africa, Asia, Latin America, and the Caribbean, with their share of older persons projected to double by 2050.[33] Therefore, it is critical that governments of these countries develop coordinated national policies and funding schemes for dementia research within the next few years, with sufficient support for ECDRs.

Better funding opportunities and more established, collaborative higher education systems and research networks have also made the United States and Central/Northern European countries more attractive for ECDRs from other countries. This dynamic could create a negative feedback loop for countries in southwestern Europe, Africa, Asia, and Central/South America, where governments decreasingly prioritize national support for ECDRs due to the "brain drain," while ECDRs increasingly look for opportunities in Western countries due to a lack of opportunities in their home countries.[34–36] Attempts to close these gaps have been encouraged through collaborative and career-developing opportunities for higher- and lower-resourced countries.[8,9] The Global Brain Health Institute is one example of this approach where international fellows undergo training at an institution in the United States or Ireland and return to their home country with new knowledge, skills, and collaborative networks. This can create a "brain gain" effect for innovation, economic integration, and technological advancements[37] that can reduce inequity in dementia care, research, and education. In the medical field, countries like Malaysia, Mozambique, Taiwan, and South Korea have implemented governmental policies and cooperative agreements to ensure the return of professionals.[38] Rwanda's Human Resource for Health program is another brain drain prevention program where collaborations between United States and Rwandan health professionals facilitate knowledge transfer, enhance clinical skills, and improve services.[39] More empirical evidence regarding the impacts of these initiatives, however, is needed.[37] To foster global collaboration in the field of dementia, it is therefore important that national dementia plans and strategies be more accessible to the public, particularly for non-English-speaking countries. This accessibility could contribute to attempts to counter the gap between research opportunities in higher- and lower-resourced countries, promoting equitable participation in dementia research.

Overall, the present findings demonstrate great heterogeneity in ECDR support across the world. This heterogeneity is also apparent in the terminology and criteria used to define ECDRs. Across nations, funding bodies, and research organizations, criteria related to age, time since terminal degree, and career experience may be used to define ECDR status, resulting in widespread differences in what constitutes an ECDR. The lack of a consistent ECDR definition impacts the ability to clearly identify and equitably support this crucial workforce at the policy level.[8] For example, to be eligible for the Australian Research Council (ARC) Discovery Early Career Researcher Award candidates must be within 5 years of the award of their PhD,[40] whereas for the United States NIH Early-Stage Investigator level grant candidates may be within 10 years of their PhD award.[41] Therefore, in contexts with wider time boundaries to define ECDR status, the clustering of "early-career" and "mid-career" researchers may occur.[8] This presents an additional challenge to ECDRs who apply for funding in the critical years immediately following their PhD award, with funding more likely to be awarded to researchers with stronger track records at the upper reaches of these time boundaries.[42] Additionally, while an increasing number of funding bodies are considering career disruptions (eg, Australian National Health and Medical Research Council *Relative to Opportunity Policy*),[42] the effect of inconsistent definitions of ECDR status and eligibility may result in inequitable access to funding and training opportunities, especially for ECDRs who have faced career disruptions (eg, parental leave, illness, insecure employment), have been educated outside of the system in which they are seeking employment, or have worked prior to pursuing higher education, further compounding the difficulty of ECDRs to establish their own track records during this critical career stage.[43]

Finally, ECDR support may be crucial but not considered the first aspect to address in countries where dementia research and care only recently have become a national priority, as resources may be primarily invested in practical steps (eg, improving diagnostic processes or building care homes). However, enabling ECDRs to thrive in their profession will advance research and care too. Thus, considering and supporting ECDRs is expected to improve the lives of people with dementia and their supporters, which is the overall purpose of dementia plans and organizations. Future studies are needed that contribute to a deeper understanding of opportunities regarding ECDR support, advocating for more inclusive support mechanisms.

4.1 | Strength and limitations

This study provides a valuable overview of national policy approaches to ECDR support, and international information was reviewed in 11 languages. However, several limitations need to be acknowledged. Many plans were excluded due to language barriers that could not be overcome with bilingual researchers and online translation services. Future studies need to be adequately resourced to enable complete data collection. Additionally, the study's focus on G20 member states meant excluding many African, Asian, and Central American countries. Furthermore, the ECDR support mechanisms investigated here are dementia-specific (ie, through national plans/policies and dementia organizations), so broader health-based action plans and ECDR targeted grants that may be offered in each country across research domains were excluded. In addition, the focus on exemplary organizations may have restricted the comprehensiveness of identified types of ECDR support within dementia organizations and hindered detailed comparisons of ECDR support between countries. Further explorations of ECDR support in global policies should be carried out in future research and/or the annual reports produced by ADI, the Who is Global Dementia Observatory, and/or other advocacy bodies that lobby for research innovation, investment, and capacity building. This paper provides the methodological guidance that could be adopted for such an exploration.

5 | CONCLUSIONS

This study found that most countries lack explicit inclusion of ECDRs in their national dementia plans or strategies, indicating the need for more countries to prioritize the support of ECDRs in fostering their career development. Eight countries have established mechanisms to support ECDRs, which serve as models for other nations to facilitate ECDR research initiatives. This study also highlights the opportunity for countries to collaborate and agree on government policies through which ECDRs can be supported. It is recommended that nations adopt top-down policy approaches to enhance and align efforts that promote equal opportunities for ECDRs and advancement of their future careers.

AUTHOR CONTRIBUTIONS

All co-authors reviewed and approved the submitted manuscript. Specific contributions are as follows. Diana Karamacoska coordinated the Australian ECR working group, reviewed Australia, and wrote the manuscript (ie, introduction and discussion). Pascale Heins reviewed France, Turkey, Belgium, Czech Republic, Malta, Netherlands, and Slovenia, synthesized data (coding), and wrote the results section. Rita Maldonado Branco reviewed Italy, Portugal, Spain, Hungary, Mexico, Romania, Slovakia, and Greece, synthesized data, and contributed to the results section. Sarah Wallcook reviewed Russia, Estonia, Finland (with Mouna Sawan), Ireland, Latvia, Lithuania, and Sweden, synthesized data (supported Figure 1), and contributed to the results section.

Wyllians Vendramini Borelli reviewed Argentina and Brazil. Mouna Sawan reviewed Bulgaria, Croatia, Cyprus, and Finland (with Sarah Wallcook) and wrote the manuscript (ie, discussion). Zara Alana Page wrote the manuscript (ie, introduction and discussion). Annie Truong reviewed Indonesia and Japan and wrote the manuscript (ie, introduction and discussion). Isabella Leung reviewed India and Korea, edited the manuscript, and compiled the reference list. C. Elizabeth Shaaban reviewed the USA. MLA-M reviewed Mexico and the USA (Puerto Rico). Naiara Demnitz reviewed Denmark. Royhaan Folarin reviewed South Africa (with Sara Laureen Bartels). Tengfei Guo reviewed China. Adam Smith conceptualized the project and reviewed the UK (England, Northern Ireland, Scotland, and Wales). Sara Laureen Bartels coordinated the review process, established the European ECR working group, reviewed Germany, Austria, Luxembourg, and South Africa (with Royhaan Folarin), synthesized data on the dementia plans and strategies, created tables and figures, wrote the manuscript (ie, methods and results section), and contributed to the introduction and discussion.

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CONFLICT OF INTEREST STATEMENT

This manuscript was facilitated by the Alzheimer's Association International Society to Advance Alzheimer's Research and Treatment (ISTAART), through the Professional Interest Area (PIA) to Elevate Early Career Researchers. The views and opinions expressed by authors in this publication represent those of the authors and do not necessarily reflect those of the PIA membership, ISTAART, or the Alzheimer's Association. Several authors are or were part of the PEERs: D.K. is the Australian Continental Lead and A.T., I.L., M.S., and Z.A.P are part of the Australian Working Group. R.F. is the African Continental Lead, T.G. is the Asian Continental Lead, and N.D. was the Communications Lead. C.E.S. is the PEERs Chair and Co-Chair of the Sex and Gender Differences Special Interest Group of the ISTAART Diversity and Disparities PIA. A.S. was the previous Chair of PEERs and is funded by the UK National Institute for Health & Social Care Research. S.B. was the PEERs European Continental Lead, and P.H., R.M.B., and S.W. are members of the European Working Group. S.B. is moreover an INTERDEM Academy Board Member. W.V.B. receives funding from the Alzheimer's Association (AACSF-D-22-928689). The remaining authors have no other interests to declare. Author disclosures are available in the supporting information.

CONSENT STATEMENT

As human data were not collected or used in this research, consent was not necessary.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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