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Posted Date: 14 October 2026

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Review

The Role and Future Potential of Radio, Podcasts, and YouTube in Influencing Awareness and Policy on Neurodegenerative Diseases in the Arab Gulf: A Focus on Oman, Qatar, UAE, and Saudi Arabia

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Abstract

The increasing prevalence of neurodegenerative diseases (NDs), especially Alzheimer's and Parkinson's, is a major public health concern in the Gulf countries (GCs) due to the rapid increase in life expectancy and population aging. This research explores the impact of radio, podcasts, and YouTube on raising awareness about NDs and publicizing media's focus on policy in four GCs: Oman, Qatar, the UAE, and Saudi Arabia, in light of media and technological limitations and restrictions, alongside cultural and religious contexts. It is observed that while radio would help to engage elderly people and rural populations, podcasts enable in-depth health education. YouTube provides an effective channel for visually clear communication of health-related information, the evidence for media to communicate specific knowledge about NDs is not strong. The lack of evidence and normalization of cognitive decline have remained an obstacle. It concludes that effective communication channels that build on existing cultural and social factors show promise for informing and increasing health awareness of NDs, but evidence is still lacking to show that receiving information alone affects health or policy. It emphasizes the necessity for future study into whether improved knowledge at the community level leads to earlier help-seeking, improved caregiver support, and access to services.

Keywords: Neurodegenerative diseases; Alzheimer's disease; Parkinson's disease; health communication; radio; podcasts; YouTube; public awareness; stigma; Arab Gulf; health policy; digital media

1. Introduction

Neurodegenerative diseases (NDs), primarily Alzheimer's disease (AD) and Parkinson's disease (PD), have rapidly emerged as one of the most significant public health concerns facing the world today. This trend has been faster and more pronounced in the Arab Gulf region, where, largely due to the dramatic rise in life expectancy and shifting demographic composition, NDs have experienced considerable growth in prevalence. According to regional data from the Eastern Mediterranean region (EMRO), the age-standardized prevalence of both dementia and PD has increased tremendously in just a few decades and is anticipated to accelerate even more in the coming years . As this proportion of elderly persons becomes larger and larger, the implications of these diseases on patients, families, and the health system will also become greater.

In the Gulf region, health awareness campaigns continue predominantly making use of traditional media (television, radio, and newspapers) to provide public health information and

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education. Although traditional media campaigns are still important, they often do not engage the connected and diverse audiences of today. We don't know yet how the role of traditional media campaigns will look in practice, considering that there has already been substantial investment in digital infrastructure and that mobile applications, portals, etc., are becoming increasingly popular and are being invested in (e.g., within digital health) across the region, and there's also no proof that an audience of today would react favourably to being reached and engaged through traditional media channels for public health campaigning focusing on neurodegenerative diseases, of which early diagnosis and treatment are critical for reduced impact in the long term.

Recent trends have also seen the rise of radio, podcasts, and YouTube, all digital media, as a "novel and engaging form of health communication." To illustrate this trend, a recent Saudi podcast episode (*Arab News | Saudi Podcast Episode Becomes Most Watched on YouTube Globally*, n.d.). This example demonstrates how far and wide this platform(s) can go in the region. Moreover, regionally, content creators are increasingly using podcasts as an opportunity to share their authentic, locally relevant stories and entertain people while educating audiences about significant health issues (Fast Company Middle East, 2023.). It is also important to be aware of growing evidence in other areas of health that digital audio formats are effective.

The Gulf region has a strong mobile connection and digital-based infrastructure that can only help us take advantage of these digital channels. In this sense, both podcasting and YouTube should be included in public health communication as well. This opens up opportunities for more accessible, culturally relevant, and effective campaigns also. Importantly, this is aimed at raising general awareness, public support, and even policy connected to neurodegenerative diseases. ***But high media penetration does not reflect the effect in real terms. The review's key themes revolve around the dimensions of availability, accessibility, and 'readiness conditions'*** that are necessary to achieve impactful use of the digital platforms. Through an analysis of the interaction between digital media, public health education, and policy development, this review seeks to build a foundation for novel approaches to reduce the escalating problem of neurodegenerative diseases in the Arab Gulf.

Research Objective

This study seeks to assess the value of radio, podcasts, and YouTube in increasing public understanding of neurological diseases and to raise the interest of policymakers toward NDs in Oman, Qatar, the United Arab Emirates (UAE), and Saudi Arabia. In particular, we want to ascertain whether these media have reach into ND communities; determine the nature of media exposure; investigate religious and cultural beliefs, misinformation about NDs, regulation, strengths and weaknesses of each media format, and identify gaps in the current health communication practices and future research.

2. Methodology

A narrative, multi-source literature study design was employed to investigate the role of radio, podcasts, and YouTube in neurodegenerative disease awareness (ND) in Oman, Qatar, the United Arab Emirates (UAE), and Saudi Arabia. The data collected from research, government reports, health and media statistics, and public institutions' sources available to the public were utilized to determine the burden of these diseases, access to and use of media, awareness levels of the general public and of ND, socio-cultural attitudes on ND and awareness of these diseases, presence of misinformation regarding ND, and policy on ND. Evidence was synthesized thematically to compare the potential reach and communication strengths of different media platforms and identify key gaps in ND-related health communication. The study also considered limitations in the existing evidence, particularly the lack of direct evidence linking media exposure with improved health outcomes or policy change.

2.1. The Burden of Neurodegenerative Diseases in the Gulf

The incidence of NDs in the Gulf is increasing due to an aging population and improved diagnostic capabilities. Available estimates of Parkinson's disease prevalence in Saudi Arabia are lower than those reported in many Western countries (Benamer et al., 2008). With the improvement

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in life expectancy, an increase in disorders of the CNS would certainly appear in the coming years (Alamri et al., 2015) . World Alzheimer Report 2021 projected for dementia that Qatar can expect an increase in dementia by 2050, as can the UAE, Oman, and Saudi Arabia based on population projections.

The UAE has invested in diagnostics; for example, there is an annual figure for neuroimaging. This increase requires timely surveillance, but there are few ND registries for the Gulf, and expert data are often assumed to be generalizable from broader studies conducted in the Middle East (e.g., Moradinazar et al., 2023). Utilizing the Technology Acceptance Model (TAM) proposed by Davis in 1989, it is reasonable to use radio for presenting NDs because the apparent ease of use could provide rural details about these epidemiologic insights; and YouTube could visually offer the usefulness of showing trends for urban youth, and the role of the media is to facilitate awareness.

2.2. Social and Economic Impacts

NDs inflict heavy social and economic burdens. The familial responsibilities to take on the lead roles as caregivers in the Gulf States commonly result in psychological trauma and economic crisis. For example, a study in a Tertiary Care facility in Riyadh found that family care of patients with AD led to greater family expenditures, increased out-of-pocket spending, more work absences, and higher caregiver exhaustion (Alsharif et al., 2023). The economic impact of dementia costs more than USD 1 trillion worldwide, and with significant growth, this trend is also seen in the Gulf region. Pilot surveys have collected evidence in Qatar demonstrating that care provision significantly contributes to a loss of economic activity since caregivers (mostly female) quit their jobs to care for relatives suffering from the disease. This situation has been recognised by policymakers and may justify plans for subsidised caregiver relief plans and additional insurance plans for care and financial backup.

2.3. Cultural and Religious Perceptions

Cultural beliefs and values, and particularly those tied to religion, contribute to the perception and treatment of NDs in Gulf states. Cultural perceptions of cognitive decline often treat it as “normal” aging. Qualitative studies in Saudi Arabia show that many families do not seek formal diagnoses for elderly family members because they view memory loss and confusion as simply normal aging and not a pathological process. A case study in Bahrain also revealed that caregivers preferred home treatment as opposed to institutionalised care. This is particularly important as taking care of family members at home reinforces cultural ideas of duty, dignity, and honor (Alsharif et al., 2023). Surveys of elderly patients in Oman found that many patients reported their Islamic faith and values were important and meaningful, and so they accepted life's challenges as divine will for personal faith reasons, which may have limited their willingness to pursue aggressive forms of treatment for neurodegenerative conditions. At the same time, religious practices, such as attending communal prayers and mosques, provide an alternative means of social support and may relieve feelings of isolation for the patients and caregivers who attend. These two competing forces are culturally significant and likely warrant public health campaign considerations that respect traditional cultural beliefs while also encouraging early diagnosis and treatment.

3. The Role of Emerging Media in Health Awareness

Different platforms are complementary to each other. The older population can be reached mostly via radio. Podcasts can bring relevant information to the younger generation. YouTube provides visual support. Therefore, the success of those media needs to be judged based on communication functions (reaching the audience, transparency, the information depth, the visual aspects, the capacity for people interaction, and the viability in the long term) instead of the total number of users they possess.

3.1. The Role of Radio

Radio is still a popular source of health information in the Gulf, especially for older age groups and those living in rural areas. The national stations, including Al Saudiya in Saudi Arabia and Sultanate Radio in Oman, frequently broadcast health messages. There have been limited broadcasts

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on neurodegenerative diseases in comparison to conditions such as diabetes and high blood pressure that are more familiar and have a higher priority on the national agenda.

These observations follow the pattern of greater media coverage of more common, non-communicable diseases. Radio's advantages include wide coverage and easier access for segments of the population with limited exposure to the internet or low levels of literacy. Audiences are likely to respond favourably if messages describe recognising initial signs of a change in behaviour, memory or physical ability as a family responsibility that they fulfil through an agreement based on shared cultural and religious values, which in turn will diminish negative attitudes. Results from other countries suggest that well-conceived radio campaigns can raise awareness and awareness about behaviour change, and whether changes in service utilisation occur, though the published evidence specific to awareness-raising for AD or PD is limited. Increased evaluation of scales measuring change in knowledge, attitudes, and behaviours should be integrated into future radio programs.

3.2. The Role of Podcasts:

Podcasts can also be used to allow longer, more thorough discussions of issues such as disease progression, diagnostic dilemmas, caregiving hurdles, and preventive interventions. Although there are health-focused podcasts in the Arab world, they rarely address Alzheimer's disease or Parkinson's disease specifically in Gulf countries. As an audio modality, podcasts tend to target the younger, more educated population that is already comfortable with on-demand audio.

Because podcasts can be listened to repeatedly and facilitate thorough explanations, they can serve to improve health literacy and to dispel myths such as age-associated forgetfulness being an unavoidable effect of ageing.

Associations with academic centres and ministries of health, as well as expert opinion, would enhance scientific expertise and cultural sensitivity. The impact of audio-only media on behaviour change (including cessation of worsening health) should be ascertained not only through download figures but also through metric (quantitative and qualitative) impact measures that include knowledge and attitudes toward healthy ageing and propensity to seek professional healthcare. Studies of Alzheimer's disease and Parkinson's disease podcasts in the Gulf remain to be done.

All platforms are complementary. Radio can access older audiences and more rural populations, while podcasts can deepen involvement of younger, digitally savvy audiences and YouTube can offer graphic illustrations. Each media medium should be assessed based on the communication functions of reach, depth, cultural resonance, and ability to engage on one side, and measuring outcomes of awareness and demand for help on the other, not by audience metrics alone.

4. Trends in Media Influence on Awareness and Policy

Government-controlled media dominate the Gulf's health communication ecosystem, reflecting the region's centralised political structures. Examples of nationally owned and operated health broadcasters in the Gulf region are Saudi Broadcasting Corporation (SBC) in Saudi Arabia and Al Jazeera in Qatar, which provide a key platform for public health communications that align with state priorities, such as the Vision 2030 (Saudi Arabia) or the National Health Strategy (Qatar). The media broadcasters in the Gulf region, either as PSAs or public service announcements, largely utilise radio and television and have mainly focused on highly prevalent non-communicable diseases (NCDs), such as diabetes and hypertension. For example, the Saudi Arabian Ministry of Health utilises radio PSAs on diabetes health management. PSAs reach an estimated of the public via state broadcasts (AlSadrah, 2021). While AD and PD recognition is growing, attention to NDs is overshadowed by competing issues such as acute disease or lifestyle modification. In Saudi Arabia, a content analysis of health broadcasts (2018–2020) found that NDs accounted for limited total airtime, even though recognised NDs are increasing (Omar & Osman, 2025). A top-down, government-controlled media approach ensures that the general public is reached, yet provides audiences with limited ability to distil information or to obtain specificity about health practices. As an example, the Ministry of Health in Oman partners with Sultanate Radio, which broadcasts health segments as part of a whole-of-government approach, but at times has provided nothing beyond general information on health and wellness and has again lacked specificity. State-driven crusades (for example, Dubai Health

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Authority on the radio) in the UAE center on the prevention of infectious diseases rather than NDs (Yasmin et al., 2022) .

4.1. The Role of Independent Creators in Shaping Discourse

Independent media makers, including podcasters and video producers on the YouTube platform, provide an adaptable form of public media, supported directly by audiences and gaining global recognition as "key influencers in conversations about the human body", a development pertinent for the Gulf States of Arabia given their high rates of digital access (e.g., > 90% Internet access in the United States (US); Pew Research Center 2023). Independent media producers circumvent the established gatekeepers and facilitate public conversation about subjects that have traditionally been difficult to broach, including NDs. The TAM (Davis, 1989) serves as a framework to analyze the success of independent media creators. Key dimensions include perceived usefulness, such as providing factual and engaging information about NDs, and perceived ease of use, which collectively appeal to a wide range of demographic audiences. These audiences prefer to consume media on their terms rather than adhering to the fixed schedules of traditional broadcasts. This is reflected in Dr. Rhonda Patrick, whose YouTube channel in the USA has over 1.5 million subscribers, where a video, "Alzheimer's Disease: Prevention and Treatment Strategies," has generated high views as of 2025.

Independent creators often showcase scientific rigour and accessibility that traditional media lacks. They include stories based on evidence, and this may lead to academic outcomes, but their reach is limited compared to institutionally based campaigns because of finite funds, and it involves taking their own time and goodwill with no dedicated back support; thus, the risks of false information are higher (Tang et al., 2017). They serve the critical purpose of engaging people to talk about NDs and could reach people and educate the local community.

4.2. Examples of Successful Digital Health Advocacy

Digital content is instrumental in shaping policy by promoting public engagement and pressure for better data visibility. For example, the ALS Ice Bucket Challenge was able to provide a donation that was invested in research in the USA. In Qatar, the 2020 'Diabetes Awareness campaign' on YouTube demonstrated this impact, with public support demonstrated through views of testimonials demonstrating the gap in diabetes care, leading the Qatar government to fund its national diabetes care strategy (Ministry of Public Health, 2018). This is just an illustration of the value of public involvement in the policy process. There has, however, historically been little awareness of NDs, although these digital means of engaging the public in the Gulf have demonstrated increased levels of attention and begun to feed into policy development, as shown above. These examples indicate that continuous digital pressure could contribute to NDs rising on policy agendas, for example, by creating podcasts that detail the struggles of caregivers or by producing YouTube-like exposés on ND diagnostic delays, particularly in countries with robust research agendas, including Qatar and Saudi Arabia Prince et al., 2015).

5. Comparative Analysis of Regulatory Frameworks Across the Four Countries

Gulf States echo a varied regulatory background in media, with differing levels of state control and room for digital innovation. Saudi Arabia has the most restrictive regulations through the Electronic Publishing Regulation (2019), which requires content creators to get licenses and have their content fit into Vision 2030's purpose to diversify Saudi Arabia's economy, which does not pertain to health (Saudi Press Agency, 2022) . Due to the lack of independent ND discourse in the nation, this can impose heavy limits on free expression. UAE has moderate to permissive experiences, especially in Dubai's media free zones, where they are free from restrictions (Yasmin et al., 2022) . Still, commercial pressures encouraged by high-net-worth individuals in the media free zones lead this type of content to favor lifestyle topics over health education content. Qatar is framed by liberalized media like Al Jazeera and moderate restrictions on media through oversight, with development and innovation aimed at health. This is mandated through its national strategy, Qatar National Vision 2030 (Ministry of Public Health, 2018). Targeted regulatory adjustments could further support this

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trend. Oman exemplifies the conservative approach to the ND process, with its Ministry of Information firmly controlling broadcast media and digital device possibilities, which limits the possible subject matter and delivers a limited set of approved resources (UNICEF). The Gulf states differ in population, healthcare systems, digital access, and media environments, so a single communication strategy may not suit all countries. Neurodegenerative disease campaigns should therefore be tailored to local needs and resources, with platform choices guided by evidence rather than assumptions.

5.1. Implications for Digital Expression

These varying regulations affect freedom of expression in the radio and podcast spaces, and on sites such as YouTube. For example, in Saudi Arabia, creators on YouTube, such as those on "Thmanyah," encounter censorship. Creators can develop quality video health content but typically do not engage in stigmatized health topics, such as NDs. For example, there is little health content discussing NDs (*Arab News | Saudi Podcast Episode Becomes Most Watched on YouTube Globally*, n.d.) on YouTube. The UAE internet penetration and; thus, over 90% of adults use YouTube, so its independent creators can experiment to some extent, and the potential for new video formats has revolutionized the global creator economy, though independent ND-specific channels are still rare. Podcasts in Qatar were also expanding, with podcasts such as "Sowt" encouraging health discussion and narratives, while ND content has not reached the same pace as general wellness (Fast Company Middle East, 2023) . In Oman, while there is plenty of rural radio (e.g., Sultanate Radio) audience potential, there is little innovation due to common control and centralised messaging capability, as well as a nearly non-existent digital penetration outside Muscat.

5.2. Existing Efforts in Neurodegenerative Awareness

Government-led ND awareness initiatives differ in scope and impact. Saudi Arabia reports the highest ND research output in the GCC during the study period (2005–2019) (Alamri et al., 2015) but not enough media resources to provide awareness of ND. The few radio messages provided by the Ministry of Health PSAs include campaigns on diabetes and preventable infectious diseases, with NDs receiving less health airtime. Qatar provides more focus on NDs within research plans, for example, biomarker studies at Hamad Medical Corporation, but there are no newsworthy media campaigns. The UAE benefits from using diagnostic advances; for example, Dubai Health Authority reported increased awareness and diagnosis of AD; however, media announcements on NDs (and radio slots) remain focused on broader health topics (Yasmin et al., 2022) . Despite its size, Oman has capitalised on the media for ND promotion, which increased clinic visits, but data collection is small-scale due to funding limitations (World Health Organization, 2021).

5.3. Non-Profit and Independent Initiatives

Non-profit and independent attempts are small but hopeful. In Saudi Arabia, the Saudi Alzheimer Disease Association holds awareness seminars, but its media presence is through static websites and not dynamic media. Qatar is fortunate to have university partnerships that could scale efforts like their podcasts (Weill Cornell Medicine-Qatar), but not a sustainable ND campaign. Oman has no significant non-profit or independent ND media projects to note, only government radio. Overall, across the four, the lack of some kinds of digital coordinated non-profit efforts is emerging.

5.4. Future Growth Potential

The future opportunities for Oman, Qatar, UAE, and Saudi Arabia to lead in digital ND awareness can draw on their distinct media ecosystems, their digital readiness, and their ability to negotiate cultural and structural barriers to enable access. If Oman's, Qatar's, UAE's, and Saudi Arabia's media leverage radio, podcasts, and YouTube, given their anticipated ND burden, Qatar's dementia cases will increase Alzheimer’s Disease International (2015) - and one or more of these countries could be leaders in health engagement.

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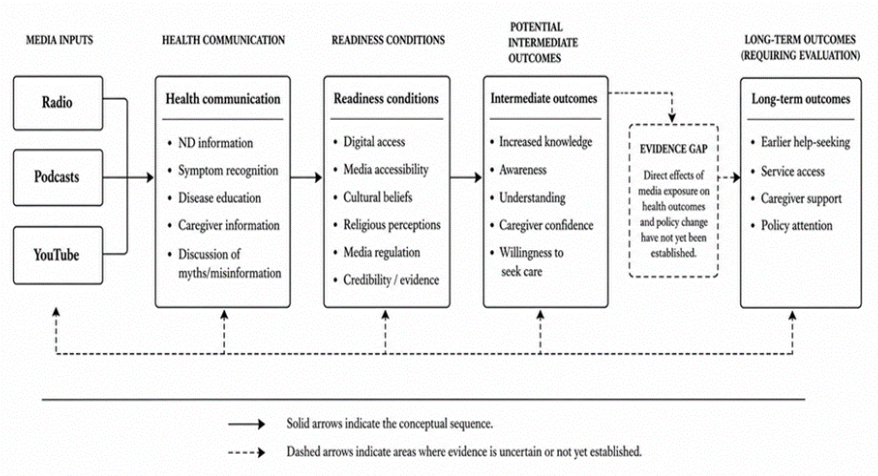


Figure 2. Media, Cultural Context, Regulation, and Neurodegenerative Disease Policy: A Gulf Communication Framework.

6. Future Opportunities and Policy Recommendations

The rates of neurodegenerative diseases (NDs) are projected large increases in dementia cases in the Gulf by 2050 highlight the importance of effective health communication. Radio, podcasts, and YouTube are all potentially powerful, scalable, and culturally appropriate tools to raise awareness, eliminate stigma around NDs, and impact public policy. This section describes possible future interventions in communication and policy. It draws on the Gulf's advanced digital infrastructure, cultural dynamics, and global health communication models to propose actionable, evidence-based solutions.

6.1. Government-Backed Neurodegeneration Segments on National Radio Stations

Government-subsidized radio programs also have the potential to institutionalize the ND information stream, "regularizing messaging" in support of national health objectives. For example, in Saudi Arabia and Oman, countries that are both the recipient of government radio broadcasts and see wide rural reach, state radio broadcasts like Al Saudiya Radio (Saudi Arabia) and Sultanate Radio (Oman) are potent communication channels; such broadcasts could highlight ND symptomology through broadcasts featuring ND neurologists, patient caregivers and local ND advocates and the work of national governing bodies (analogous to UK dementia public service awareness campaigns of the BBC, increasing awareness (Prince et al., 2015) . To extend its reach more directly to the 3rd most connected nation in the MENA region, Qatar's Ministry of Public Health broadcasts could incorporate ND-specific segments, reaching residents through Internet access in its predominantly urban population.

The problem, however, may lie in sluggish bureaucratic momentum and in the need to compete with the salience of more recognized, although not more serious, diseases like diabetes. Funding, e.g., reallocating Saudi's health budget (Saudi Ministry of Finance, 2023), could sustain weekly 15-minute slots, with impact assessed via listener surveys and clinic visit upticks, as seen in Oman's "Mind & Memory" (World Health Organization, 2021). **Example:** A proposed "Brain Health Hour" on UAE's Radio Mirchi could blend clinical advice with cultural narratives, evaluated through pre/post-awareness metrics. *The government should focus on health communication policies on measurable health benefits, not media reach alone. For each intervention, it will be necessary to specify who will be reached, how they will be reached, and what is intended and will be measured. From this evidence, it will be possible to assess to what extent radio, podcasts and YouTube demonstrate improvements in recognising symptoms, as well as increased knowledge, caregiver confidence, comprehension and a decrease in exposure to MIS information. From this, policy may aim to allocate resources more effectively to approaches which offer valuable help.*

6.2. Collaborations with Religious and Cultural Influencers

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Religious and cultural authority in the Gulf is particularly high where health practices and beliefs are Islam-influenced. If imams or tribal leaders were engaged in using their pulpits/community forums to mention the importance of being aware of ND, it may be possible to move the perception away from 'fated by God' or simply getting older towards one where ND is viewed as a medical concern. In Oman, where it is found that older people defer treatment due to reliance on faith (Ghadirian, 2021). Saudi Arabia's mosque networks, reaching millions weekly, offer a parallel channel (Alsharif et al., 2023). In Rwanda, it was found that people went to be tested as a result of a radio campaign, proving that this approach is sustainable everywhere.

Cultural sensitivity and understanding are crucial- overt medicalising will make listeners feel uncomfortable. A combination of spiritual inspiration and more "clinical" information might work, such as suggesting that going to the doctor is a manifestation of being a good steward. This will require training, however, and an evaluation process to ensure consistency of message. **Example:** A Saudi pilot featuring imams on Mix FM discussing ND care as a familial duty could be scaled across GCC stations, tracked via X sentiment analysis.

6.3. Podcast Recommendations

An Arabic ND podcast, anchored by universities, could include King Faisal Specialist Hospital (Saudi Arabia), Qatar University, or UAE University. They will contribute academic credibility. Featuring neurologists, patients, and caregivers, these series could explore ND progression, caregiving challenges, and early detection, as exemplified. Qatar's research focus (El-Agnaf et al., 2022) and Saudi's ND publications (Alamri et al., 2015) provide rich content pools. Globally, "The Alzheimer's Podcast" (US) averages downloads monthly, demonstrating demand for narrative-driven health content (Development, n.d.). Production costs and listener retention require university funding (e.g., Qatar National Research Fund) and promotion via academic networks. Making it accessible across various Arabic dialect communities (i.e., Khaleeji) and integrating it onto popular platforms such as Anghami. An idea for this, in the form of 'Minds of the Gulf ', a new series from a UAE university, which will begin as a ten-episode production, be hosted on the streaming service Spotify and measure its impact with audience surveys.

6.4. Incentives for Independent Podcast Creators

Independent creators (like those for Saudi's "Thmanyah" with high viewers; Arab News, 2024) could create varied ND content but have no financial incentive to. However, a tax incentive, grant, or sponsorship deal with health ministers could boost interest in brain health, perhaps even in the UAE, with weekly listen rate (Statista, 2023), and create a similar effect in the youth market. Canada's government initiated grants for health podcasts, the output rate of which increased, and it can serve as an example for what can be replicated; of course, a mechanism for ensuring quality content (e.g., approval by neurologists or a peer-reviewing process) can be developed. The incentives should support new independent ideas rather than transform them into cash cows as observed in the wellness podcast trend."**Example:** A Qatar grant program could fund "Brain Talks" by independent creators, tracked via download metrics and X engagement.

6.5. YouTube Recommendations

The visual strength of YouTube and its dominance in the Gulf region make it well suited for ND education. These various recommendations apply to different target groups, based on different content.

6.6. Future Directions

Future research should move beyond descriptive analyses of media use toward systematically evaluated communication interventions. Initial research would focus on country-specific profiles of audience characteristics, platform usage patterns, patterns of information-seeking, and trust levels in information-seeking sources. These baselines would inform pilot interventions (using pre-post or controlled study designs) that evaluate shifts in disease knowledge, symptom identification, attitudes, and help-seeking behaviors. Long-term follow-up would ascertain whether continued use

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is associated with resultant changes in service use, caregiver-related outcomes, or health policy. The success of radio, podcasts, and YouTube as health promotion media in the Gulf relies on answering fundamental gaps in understanding about their use. First, quantitative studies could be beneficial. For instance, surveys targeting Oman's rural radio listeners, podcast users in Qatar, and YouTube audiences in the UAE would provide insights into platform preferences, content engagement, and cultural openness to utilizing these media. Some platform-based data could also be gathered through X analytics or web scraping, perhaps analysing Arabic discourse of ND content to establish frequencies of misinformation in contexts where the misinformation prevalence is greater (Tang et al., 2017). Second, pilot interventions could be initiated (e.g., in the UAE, a "ND Challenge" based on the Western tradition of Dr. Andrew Huberman's educational videos in Saudi Arabia, a Brain Health channel) and assess baseline information with pre/post decision metrics (e.g., awareness scores, clinic referrals) to establish whether the interventions could be scaled up and/or cost-effective. Third, the research could compare ND campaigns around the world (e.g., Australia's "Dementia Australia"; Dementia Australia, 2023), or test cultural jigsaw puzzle comparisons to Gulf-specific ND adaptations. Cultural adaptations could include Islamic narratives or consider how Dr. Rhonda Patrick shared success in taking a science approach as educational content. Lastly, there could be a longitudinal assessment of how health-policy changes (like funding reallocation after the campaign period) influenced the media-health-policy complex and the effectiveness and support for WHO digital health strategy (World Health Organization, 2020).

These directions, grounded in mixed-methods approaches, offer a roadmap to position the Gulf as a leader in ND communication, addressing its unique demographic and digital landscape. This review lays the groundwork for such scholarship, urging a proactive shift from reactive care to preventive awareness, informed by Western examples adaptable to the Gulf context.

This approach can provide stronger evidence of whether media-based neurodegenerative disease communication is effective and scalable, beyond audience numbers alone. Future work should then address outcomes that are measurable; how to best support cultures and languages; ensure scientific rigor; and policy implications. This can then guide how Oman, Qatar, the UAE and Saudi Arabia can, in a low-cost and culturally sensitive way, effectively assist those who are caring for patients, and the health care providers and systems that are delivering care.

7. Conclusions

The growing rates of neurodegenerative diseases (NDs) like Alzheimer's and Parkinson's in the Arab Gulf have been projected to increase in Oman, Qatar, the UAE, and Saudi Arabia by 2050 (Martin Prince et al., 2015) , requiring innovative ways to raise the public's awareness and impactful policy changes. This review evaluates the effectiveness and future role of radio, podcasts, and YouTube to address the growing burden in Oman, Qatar, the UAE, and Saudi Arabia. Through investigations into media effects-on the basis of epidemiology, media features, and policy conditions-our paper describes media disruption for all the more, or much too, important reasons, as well as approaches taken or advisable action. Neurodegenerative diseases are a growing public health threat in the Gulf, not least due to a population that is ageing and enjoying longer life, leading to increased estimates in the predicted incidence of dementia and Parkinson's disease. But gaps in surveillance, specialist care provision, support for caregivers and public education are considerable, and the current evidence base does not clearly show that radio, podcasts and YouTube can either improve neurodegenerative disease outcomes or health policy in the Gulf region. The best bet thus appears to be a culturally sensitive, evidence-based and outcome-driven approach to developing and assessing communication interventions. Future research needs to determine whether increased awareness translates into earlier help-seeking, better support for family caregivers, improved access to services, and sustained policy commitment. This evidence is required before large-scale investment in ND related media campaigns.

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