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Social prescription for those living with dementia; does MedTech have a role to play?

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ABSTRACT

Ageing is the major risk factor for dementia and nearly every country has seen its life expectancy rise from the beginning of the 21st century. Remaining socially connected has positive health and social implications and may be even more significant for marginalized group of people like those living with dementia. If appropriately used, social prescriptions can help deliver value-based social engagement and primary care by maximising the utilisation of resources and addressing social determinants of health, decreasing dependency on the biomedical model and thus providing a way for health care systems to deal with social determinants of health. More frequently, however, those seeking access to these programmes do not tend to do so simply due to lack of understanding and knowledge of the availability of such services. So, provision of social activities involves more than developing a program and hoping people will attend, and considering the particular situations of those living with dementia as marginalised group of people, and taking into account that there is no treatment for dementia, societies need to move toward social prescription, integrating appropriate MedTech support- targeting on those living with dementia- into such programs.

Keywords: Dementia; Social prescription; MedTech; Social participation; Ageing

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Introduction

Nearly every country has seen its life expectancy rise from the beginning of the 21st century (Lee, 2019; Stucki et al., 2018; Zimmer et al., 2016) [14,27,36]. There has been an increasing global life expectancy since 2005 (Beard, 2012; Bongaarts, 2006) [2,5] and as stated by World Health Organization (WHO) the global life expectancy at birth (LEAB) escalating by 6 years (65–71) since 1990 (World Health Organization, 2017)[33]. In 2016, the average life expectancy at birth was 72.0 years (WHO, n.d.). This increased life expectancy is mainly driven by changes in the provision, funding and delivering of healthcare and a significant reduction in fertility and mortality rates owing to the introduction of preventive health services, unprecedented adoption, increased health equity, and use of advanced technologies, to name a few (Brown, 2015; Johnson et al., 2018; Lunenfeld et al., 2013) [7,13,18]. In turn the changes in health and life expectancy have led to an increased growth in the older population in the past century (Crimmins, 2015)[9].

The increasing ageing demographic would shift the health dynamics (Bohk-Ewald et al., 2017)[4]. Though the world population lives longer than ever, not everyone has a healthy life expectancy (Vaupel, 2010)[29].

Cognitive function loss increases with age in all populations. In turn, this cognitive loss might lead to significant clinical and functional consequences known as dementia. Dementia is not a normal part of ageing (World Health Organization, 2019) but has profound consequences for the people with the condition, being regarded as the third leading cause of disability-adjusted life years (DALYs) overall (Australian Institute of Health, 2012; Australian Institute of Health and Welfare, 2016; Dementia Australia, 2018a; World Health Organization, 2015). Also, ageing is the major risk factor for dementia (Lipnicki et al., 2017) and for the coming decades, the WHO has listed dementia as a health priority (World Health Organization, 2012).

Given the lack of updated diagnoses, successful prevention measures, treatment and mana-

gement choices by healthcare professionals, the economic and socio-cultural impact of dementia is likely to increase, as the population of those living with the disease also continues to increase (Australian Institute of Health and Welfare, 2014; Loughnan & Carroll, 2015; Poole et al., 2017).

Active ageing

The "age friendly communities" initiative of the World Health Organisation (WHO) has shown a positive relationship between ageing and successful ageing (WHO, 2010)[34]; as a result, developing "age-friendly communities and cities" has become of public interest and is influencing policy (World Health Organization (WHO), 2015)[35]. Active ageing is defined as "the process of optimizing opportunities for health, participation and security in order to enhance the quality of life as people age" and it depends on a range of influences that impact individuals, families and countries including social determinants, physical determinants, personal determinants, behavioural determinants, health and social services, and economic determinants (World Health Organization, 2007)[30].

An initiative was led by the World Health Organization in 2007 to recognise key areas of ageing-friendly populations. The research has resulted in the identification of 8 domains that are essential to ageing friendly communities such as transport, accommodation, social engagement, respect and social inclusion, civil participation and employment, outdoor spaces and houses, health and community support as well as information and communication (World Health Organization, 2007)[32].

Social participation

Social participation is one of the eight priority areas identified in the WHO's (2007) Age-friendly Cities (AFC) Guide and has been defined as "the engagement of older people in recreation, socialization, and cultural, educational and spiritual activities" (p. 9) with others "in the community, as well as, with the family" (p. 38). Moreover, previous research has shown that more social support is correlated with higher level of social engagement and as such fewer depressive

symptoms among older adults. (Li, Jiang, Li, & Zhang, 2018)^[16]. It has also been proposed that so-cial participation plays an important role in the satisfaction of elderly people; hence barriers to social participation should be tackled (Borhaninejad, Nabvi, Lotfalinezhad, Amini, & Man-souri, 2017)^[6].

In addition, studies have noted the positive effect of social involvement on the mental and physical wellbeing of older adults and demonstrated that the participation of the elderly leads to the well-being of individuals and the claim that public health and social care policies should take potential social benefits into account. (Provencher et al., 2016; Vozi-kakiet al., 2017)^[24,30]. Remaining socially connected has positive health and social implications and may be even more significant when social and emotional ties are broken up, social participation decreased and health problems may limit decision-making (Steptoe et al., 2019)^[26].

Such consequences may be worse for elderly people living with dementia, as dementia-related stigma may hinder people from establishing and maintaining social connections (Birt et al., 2019)^[3], and they are more likely to be excluded from so-cieties due to cognitive behavioural and social impacts (Batsch & Mittelman, 2015)^[1]. Access to and value in community settings and engage-ment in such community activities are essential factors that help to build a sense of belonging (Levasseur et al., 2017)^[15]. The lack of these fac-tors in the lives of older dementias has been as-sociated with an increased risk of functional de-cline (Fu et al., 2018)^[11].

Social prescription

Emerging research indicates that social prescription can enhance the health and well-being of individuals and minimise workload for healthcare professionals. (Cawston, 2011; Thomson, Camic, & Chatterjee, 2015)^[8,28].

A “social prescription” is a referral to one or more of these activities, which are typically provided by the local voluntary and community sectors. Referral method, target groups, activities offered, and the intensity and length of the provided

assistance vary in different communities. For instance, social prescribing in England is part of the NHS Long Term Plan and Primary Care Networks from 2019. Social prescription is aimed at a variety of people, including but not limited to those living with dementia, those who are socially isolated, those living with long-term physical and/or mental health conditions. The function of social prescription differs between basic sign-posting, to more extensive and often long-term personal support (Drinkwater, Wildman, & Moffatt, 2019)^[10]. Models of social prescription offer more tools for social integration as a cause of health issues and promote patient interactions, interventions and activities with non-medical staff (Polley & Pilkington, 2017)^[23]. As appropriately used, social prescriptions can help deliver value-based primary care by maximising the utilisation of resources and addressing social determinants of health, decreasing dependency on the biomedical model and thus providing a way for health care systems to deal with social determinants of health (Payne, Walton, & Burton, 2020)^[21];

The provision of social prescriptions requires the health and care sectors to recognise and effectively collaborate with local community assets that help create and deepen community ties where social prescriptions are available (Jani & Gray, 2019)^[12].

Where are the gaps? do MedTech have a role to play?

The social integration of persons with dementia in the community will contribute to a sense of connectedness to the world and being part of the community (Sun, Clarke, Madahey, & Zhou, 2019). However, the importance of offering basic services, rather than making the social citizenship process smoother for older people with dementia, is controversial (Boyle, 2010). Promoting active engagement and advocacy may acknowledge the identity and dignity of people living with dementia as social citizens (Seetharaman et al., 2020)^[25]. Divergent initiatives including social prescriptions may certainly empower individuals with dementia in the community and expand their capacity to truly under-

stand their role as other citizens of society in the fields of citizenry and privileges. So, using various mechanisms to encourage communication for people living with dementia is recommended to foster involvement and improve the acknowledgement of their citizenship and human rights, as other members of the society (Nedlund, 2019)^[20]. Marginalized groups of people, including those living with dementia, may benefit from greater clarification in social prescription messages and communications aimed at improving their health literacy and consequently their physical and mental health behaviour (Manthorpe et al., 2004)^[19]. An abundance of programmes and services exist which improve health and wellbeing of those living with dementia including online services provided by dementia organizations, arts centres (online museum tours), virtual singing sessions, painting classes via zoom...

More frequently, however, those seeking access to these programmes do not tend to do so simply due to lack of understanding and knowledge of the availability of such services. Providers of these programmes and services appear not to have the budget for broad advertisement and marketing and focus on those most in need.

The World Health Organization (2007) AFC Guide recognizes that social participation depends not only on offering activities but includes a consideration of how the promotion of community engagement is addressed. Delivery of community programs and special activities requires the commitment of a variety of stakeholders, including those who are involved in designing, managing, funding, delivering, and promoting such activities^[17,22]. According to the WHO guide (2007), activities must be accessible, affordable and well communicated. Hence, provision of social activities involves more than developing a program and hoping people will attend, and considering the particular situations of those living with dementia as marginalised group of people, and taking into account that there is no treatment for dementia, societies need to move toward social prescription, integrating appropriate MedTech support in-

to such programs.

While conceptual models and frameworks can play an effective role in making information about social activities accessible to web users, there is still a need for a well-researched solution to shape the age/dementia-friendly virtual environment, and to allow older people, especially those living with dementia, to find digital routes; which could reduce the risk of missing the target result by such users (Dickinson, Smith, Arnott, Newell, & Hill, 2007). This gap might be addressed through applying appropriate MedTech support and integrating it into social prescription services.

Ongoing research

The concept of including those living with dementia in community-based activities, is part of an ongoing PhD research project in an Australian university. The Ethics to conduct the research was sought from the Human Research Ethics Committee at one of the universities in Australia. A pragmatic worldview was employed to craft three phases of this study, each answered particular research questions and required different data collection and analysis., including:

A scoping review to understand the scope of measurement/evaluation methods/approaches used in studies that recruited participants with dementia from the community (not from health /clinical or residential aged care settings or nursing homes) and delivered community-based participatory arts activities/programs (not art therapy programs) to them.

A desktop audit using an empirically and theoretically based framework approach for online information-seeking to seek evidence of participatory arts activities suitable for people living with dementia.

A thematic qualitative approach to analyse the perspectives of those living with dementia, artists and art designers toward including those living with dementia in community-based arts activities. A research proposal has also been developed to further this study and to involve MedTech support to develop a dementia-friendly digital platform to bridge the gaps

between activity providers/ facilitators and those living with dementia in the community.

Conclusion

Considering the benefits of social participation and social prescription for those living with dementia, there is an urgent need for research and community-based projects to take the designing and delivering process of social activities into a new level, through developing and using a de-mentia-friendly digital platform. Such programs demand MedTech support to enhance interactions between stakeholders and those living with dementia and their caregivers in the community. Such programs would be beneficial in reducing the trauma of diagnosis and enabling people to override symptoms through accessing to and attending social activities in the community.

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