

MENTAL HEALTH CARE NETWORKS IN OLDER ADULTS: A NARRATIVE REVIEW

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Abstract: *The present narrative review addresses the difficulties and challenges occurring in the field of mental health in elderly adults by describing and synthesizing the available data. More precise knowledge on the prevalence of mental health difficulties in this population is still necessary. This directly leads us to the problem of age-related stereotypes and inaccurate knowledge regarding diagnosis in old age. Poly-pharmacy and side effects of psychotropic medications are also challenges encountered in the field of mental health in older adults. This paper highlights the necessity to improve knowledge and skills by research and by training professionals and develop multidisciplinary networks focusing on older adults' mental health care.*

Keywords: mental health; older adults; mental health networks;

Mental health care networks in older adults: a narrative review

This paper presents a stocktaking of the current knowledge as well as gaps regarding mental health care for older adults. This narrative review is motivated by the necessity to develop efficient mental health care networks to handle the combined global population's aging that began in the last decades and the increasing prevalence of mental health difficulties in young population cohorts (Gavrila-Ardelean, 2015). Mental disorders are conditions that occasionally or chronically involve changes in thinking, feeling, mood, and/or behavior that will affect daily-life functioning (e.g., depression, bipolar disorders, anxiety disorders, personality disorders, eating disorders). Findings from the WHO World Mental Health surveys reveal that a large number of people will suffer at some point in their life from mental health issues with, for example, a lifetime prevalence of 29.1% for Belgium, 37.9% for France, and rising to 47.4% for the USA (Kessler et al., 2009). The concern regarding mental health in old

age is a priority given mental health difficulties are related to premature mortality, an increased dependence, and higher risks of co-morbidities (e.g., Gureje & Oladeji, 2017).

The particularity of mental health in older adults is to combine mental health problematic to age-related changes affecting cognitive, social, physical, and economic domains (Gavrila-Ardelean, 2018). Consequently, in mental healthcare as well as in geriatric care, care networks have been developed in recent years in response to the necessity of a multidisciplinary and coordinated support system. Regarding networks in mental health, Provan and Milward (1995) state: "Through coordination, an integrated system supposedly minimizes duplication of services by multiple provider agencies while increasing the probability that all essential services are provided somewhere in the system and that clients will have access to these needed services" (p. 3). Hence, mental health networks are supposed to increase the care cost-effectiveness by increasing the quality of care and avoiding unnecessary economic costs. However, a joint action materialized by mental health care networks specialized in older adults has never been widely tested.

By highlighting current insights, knowledge gaps as well as future challenges regarding mental health in elderly people, this narrative review aims to assist the development of efficient mental health care networks

Methods

After the authors agreed on the search terms, searches were conducted in PubMed and ScienceDirect of the combination *mental health network* and *older adults* (or *elderly adults* or *elderly people* or *elders*), and the combination *mental health* (or *mental disorder* or *mental illness*) in the title and/or abstract and in English in publications from January 1997 to October 2017. The references in the retrieved publications were reviewed and relevant contributions were included. Another source of additional references has been discussion with experts of the mental health network for elderly adults. Publications in French were included in this case due to their relevance by describing an innovative French mental health care network completely dedicated to older adults. In order to keep the narrative review concise, only the most relevant papers have been included in the present paper, and the references that were deemed by authors as lacking relevance for the focus of the review have been eliminated.

Results

The narrative review highlighted several aspects and limitations that we will develop below: (1) prevalence and typology of mental health difficulties, (2) diagnosis and treatment and (3) older adults' mental health network challenges.

Prevalence of mental health difficulties

A necessary step to deal with mental health in elderly adults and to offer efficient answers is to have a clear overview of mental health difficulties encountered by this part of the population. However, we observe a relative lack of data on prevalence and the available ones mainly focused on North American and European countries.

Paradoxically, if Alzheimer's disease and other related types of dementia do not fall in the category of mental health disorders, people living with dementia represent an important part of older adults having mental health disorders due to the high prevalence of behavioral and psychological symptoms of dementia (BPSD) combined to the high prevalence of dementia. Between 5.9 to 9.4% of the European aged of 65 years and more have dementia (Berr, Wancata & Ritchie, 2005). An estimated 47.5 million people are currently living with dementia (WHO, 2015) and Worldwide predictions posit this number to reach 81.1 million in 2040 (Ballard et al., 2011). In addition to cognitive changes, dementia is often associated with behavioral and psychological changes that affect the daily life functioning and well-being of patients

(Cummings & McPherson, 2001). BPSD may include several aspects that belong to mental health disorders, such as agitation, aberrant motor behavior, anxiety, euphoria, irritability, depression, apathy, disinhibition, delusions, hallucinations, and sleep or appetite changes. Their prevalence is very high, with 50 to 80% of all individuals with AD or a related dementia concerned (Ballard, Day, Sharp, Wing, & Sorensen, 2008). Apathy is the most frequent BPSD followed by irritability, agitation, depression, and anxiety (Bergh & Selbaek, 2012). BPSD are a main cause of premature entrance into long-term care facilities and a predictive factor of more severe cognitive decline (Cerejeira, Lagarto, & Mukaetova-Ladinska, 2012).

Mental health problems related or not to dementia, will increase the use of home care and nursing homes entrance. A Canadian study on older adults (aged 55 years and older) receiving home care showed that only 6% to 9% of those who were not diagnosed with a mental health problem received home care, compared to 16% and 19% of those diagnosed with a mental health problem, and 30% to 34% of those with a dementia diagnosis (Martens et al., 2007). Logically, dementia is the most prevalent related mental health difficulty among older adults living in long-term care homes, with a median prevalence of 58% across studies and the presence of BPSD in 78% of residents with dementia (Seitz, Purandare & Conn, 2010). Following this in the list of disorders are depressive symptoms and major depressive disorders (with a prevalence of 29% and 10%, respectively). Frequently associated with depressive symptoms, the prevalence of anxiety and substance abuse disorders has been less studied. In 2004, the National Nursing Home Survey reported a prevalence of 11% for anxiety disorders and 1.5% for substance abuse disorders in U.S. long-term care (reported in Seitz et al., 2010). These data are not so different from those regarding home care. A study of 28,475 elderly Americans receiving home care revealed that 39.3% had at least one mental health problem, with depression and anxiety being the most frequent ones with a prevalence of 28% and 18.9%, respectively (Wang, Kearney, Jia, & Shang, 2016). According to European data available from the SHARE survey of non-institutionalized adults aged 50 years and above, in the 10 investigated countries the prevalence of depression ranges from 18.1% in Denmark to 36.8% in Spain. More globally, higher prevalence was recorded in the Latin countries (France, Italy, and Spain) than in the Germanic (Sweden, Denmark, Germany, The Netherlands) and Hellenic (Greece) countries (Castro-Costa et al., 2007).

Diagnosis and treatment

Adequate knowledge on the prevalence of mental health difficulties in the elderly population has an impact on the adequacy of diagnosis, treatments and services offered to them. Currently, mental health in older adults is facing the specific aspects of inaccurate or missing diagnosis due to age-related stereotypes and poly-medication.

Diagnosis inaccuracy and age-related stereotypes

Efficient treatments require accurate diagnosis. However, mental health problems in older adults appear to be underdiagnosed or at the contrary treated in absence of a diagnosis. For example, compared to younger adults, people aged 65 and older are three times less likely to report receiving any form of mental health treatment but in the same time a large proportion of older adults receive psychotropic medications without a clear diagnosis (Karlín & Fuller, 2007). Similarly, a U.S. American study revealed that only 37.9 % of patients identified as depressed received depression intervention during their 2-month home care episode. Even more surprising, among older adults receiving depression support intervention, 32% of them had no mention of depression in their diagnosis, symptoms, or prescription of mental health services at admission (Wang et al., 2016). These different results can be explained by the fact that, as highlighted by Montagnier, Hanon, and Glénisson (2012), current mental health classifications and diagnostic tools do not fit with the specific symptomatology of older adults

and might lead to incorrect diagnosis. Another explanation is the high prevalence of negative stereotypes on older adults' mental health. Potential adherence of older adults to negative age-related stereotypes may lead them to believe their difficulties, such as depression, are "just old age" and hence reduce the probability of seeking medical consultation to treat it. In addition, negative age-related stereotypes (e.g., older adults are frail and often depressed) are also reported by healthcare professionals and may lead to inaccurate diagnosis and medical prescriptions (Chrisler, Barney, & Palatino, 2016).

The harmful nature of such inadequate or unnecessary medications is exacerbated by the fact that older adults are highly sensitive to polypharmacy and the side effects of prescribed medications.

Potential side effects of psychotropic medications

The number of medications increase with aging, and U.S. American data of community-dwelling older adults report that more than 90% use at least one medication per week and more than 40% use five or more different medications per week (Gurwitz, 2004, cited in NHTSA, 2006). The multiplication of medication increases the risk of side effects and harmful interactions between medications, and this by 50% for older adults taking five medications to 100% for those taking seven and more medications (Delafuente, 2003). The elderly population is particularly susceptible to develop side effects linked to medications due to age-related physiological changes (e.g., decrease of liver volume and hepatic blood flow, reduction of body mass and basal metabolic rate, reduced proportion of body water, etc.) that may reduce medication metabolism (e.g., Arnold, 2008; NHTSA, 2006). Principal negative side effects of medications commonly described in older adults are drowsiness, weakness, confusion, difficulty coordinating movements, and falls. Consequently, polypharmacy may reduce the older adult's quality of life, safety, and independent living, as well as increase the risk of misdiagnosis or misinterpretation of symptoms, mistreatment, need for hospitalization/admittance into a nursing home, thus causing unnecessary health care costs (Arnold, 2008).

Polypharmacy is also a problem in mental healthcare for adult of all ages, as demonstrated in several European studies on psychotropic medications (Hallahan, Murray & McDonald, 2009; Prudent et al., 2008). Beside the necessity of appropriate indication, dose and duration of treatment are also important aspects to consider regarding potential harmful side effects. Investigations in nursing homes revealed that relevant medication choice, but also dose and duration of the prescription are associated with lower mortality (Wei et al., 2014). To help practitioners in the task of preparing prescriptions, lists of potentially inappropriate medication use in older adults (i.e., where the risk of adverse events outweighs the clinical benefit) have been published in the U.S. (e.g., American Geriatrics Society Beers Criteria Update Expert Panel, 2015) and Europe (e.g., Renom-Guiteras, Meyer & Thürmann 2015).

Older adults' mental health network challenges

The variety of symptoms, needs, and resources of people experiencing mental health difficulties add to the growing recognition that interdisciplinary teams and networks are a necessity to attend to the complex needs of patients. This interdisciplinary approach involves professionals such as psychiatrists, psychologists, general practitioners, nurses, auxiliary nurses, social workers, and occupational therapists who are regularly found in mental health networks (Veras et al., 2014). The aim of their combination in care networks is to increase continuity of care and to reduce the fragmentation of care resulting in an unnecessary and expensive multiplication of appointments and tests that overload health care systems (Veras et al., 2014).

Older adults care networks

As mental health networks dedicated specifically to older adults are still rare, first insights have to also be found from the information available on older adults' health care networks. Veras et al. (2014) reviewed 12 articles referring to five coordinated and integrated health care models for older adults (i.e., SIPA, PACE, PRISMA, Guided Care, and Grace) that mainly focus on frail older adults encountering high functional dependency. Their beneficial outputs included the reduction of hospitalization and institutional costs as well increased user and career satisfaction due to the implementation of care networks (Veras et al., 2014).

A substantial part of the older adult population receiving professional assistance via home care or long-term care facilities is affected by mental health difficulties. However, involved professional careers appear to have insufficient specific knowledge on mental health in older adults. Among them, home care workers are a main component of mental health care networks, maintaining daily or almost daily contact with the older adults in their place of residence. Despite this main role, care workers report that they are not enough or not at all prepared to provide care to older adults with mental health conditions. Focus group interviews revealed that aggressive, disruptive, and psychotic behaviors are perceived as the behaviors that make daily care provision to clients more challenging (Gleason & Coyle, 2016).

A way to respond to this lack of specific knowledge has been to develop additional care networks focusing on psychiatric care. For example, to structure a new and specific care offer in France, as well as to enhance training, education, and to develop clinical and epidemiological research, the first resource regional center of old age psychiatry was established in 2014 in Ile-de-France (Hanon, 2015; Pancrazi et al, 2015). This resource center has allowed the creation of a network of professionals and a clinical center for excellence and expertise. As the subspecialty of old age psychiatry was recognized in 2017, programs of initial training and postgraduate education have been developed. The implementation of such an innovative center focusing on geriatric psychiatry will soon be followed by similar institutions in other regions of France (Hanon, Seigneurie, & Limosin, 2018) and highlights the need for this kind of offer.

Conclusion

The aim of this narrative review was to summarize important facts related to mental health in older adults to understand why the development of mental health networks adapted to their specific needs is a necessity to enhance care efficiency.

A first observation was the relative lack of data regarding prevalence of mental health difficulties in older adults. We highlighted the non-representativeness of these numbers resulting from studies originating mainly from North America and Northern or Western Europe. This missing, specific information, added to age-related stereotypes, might explain the high proportion of undiagnosed mental health problems in older adults as well as inappropriately prescribed treatments. The development of mental health and psychosocial networks with expertise regarding the situations of older adults will contribute to the alleviation of these difficulties and increase the continuity of care. Pointing out the importance of providing adequate health care for older adults, Veras et al. (2014) states that 'patients' care needs to be managed from entry into the system until end of life, with services integrated at all levels' (p. 362).

More and more countries are shifting from hospital and long-term care facilities to home and community-based health care (Gleason & Coyle, 2016) but the balance of community-based and hospital-based services appears currently effective in only a few high-income countries (Saxena, Thornicroft, Knapp & Whiteford, 2007). In addition to the reduction of health care costs, community-based services are expected benefit to a better social integration of patients with, as positive outcome, a preserved sense of well-being. However, this progressive shift requires adaptation and adjustments such as 'the networking of professionals

outside and inside the hospital, in outpatient services and the monitoring of users alongside other professionals from the social and related sectors' (Fond-Harmant, Gavrilă-Ardelean, et al., 2016, p. 264). As highlighted previously, older adults with mental health difficulties need a holistic approach involving several partners who require an efficient coordination to guarantee continuity of care. The development of health care networks aims to satisfy this need of coordination by offering community health services to the local population by long-term agreements across local organizations (Lorant, Nazroo, Nicaise, The Title 107 Study Group, 2017).

To comply with this aim of an integrated and life-long approach to mental health care in older adults, the training of care providers is a priority. For instance, data arising from home care workers suggest that more training or information would help them to develop efficient strategies to deal with challenging behaviors but also to manage their own personal and emotional responses (see Gleason & Coyle, 2016). In addition, a lack of external support was highlighted regarding this lack of information in general but also regarding acute crisis situations requiring the intervention from their employer or the police. As underlined by the authors, acute crises are time- and resource-consuming for the care workers as well as for other members of the care network, and increasing training and skills on how to react to such situations are necessary for the success of care in the community. A main aspect of an effective mental health care network is to develop an efficient top-down but also bottom-up communication regarding the patient's situation and needs. More precisely, home care workers have to be informed and trained by their employer about the person's diagnosis in order to understand and anticipate potential behaviors or difficulties (e.g., refusal to get out of bed). Increased bottom-up communication is also necessary to relay important information on symptomatology changes or potential undiagnosed patients, allowing home care workers to be fully involved in the development of an individualized care plan (Gleason & Coyle, 2016).

All of these suggestions imply the availability of an adequate and specific training to foster a better level of knowledge and skills for all professionals involved in a mental health network. Offering more information and a more active role in patient's care is a way to empower professionals, especially home care workers who are working in a low-paying and challenging job, and are subject to high levels of burnout. Providing information and training could be effective measures to increase their job satisfaction, sense of accomplishment and, consequently, reduce their risk of turnover. The empowerment of mental health care users and their relatives is also a challenge that networks can undertake. Previous investigations revealed that interventions aiming to increase families' knowledge about mental health improve their capacity to cope with their relative's mental health difficulties (e.g., Kulhara, Chakrabarti, Avasthi, Sharma & Sharma, 2009; Pickett-Schenk, Lippincott, Bennett, & Steigman, 2008). The promotion of exchanges and partnerships between people affected by mental health difficulties, mental health professionals, and researchers is a necessity to improve the communication about mental issues to society and reduce mental health-related stigma (Sunkel, 2012). It is also a powerful way to increase the empowerment of mental health users as strongly recommended by the World Health Organization (WHO, 2010). More investigations are necessary to study how to make mental health networks even more efficient to reach this aim. Another main point to develop concerns the relevance of extending mental health networks to more countries.

In conclusion, more efforts are still required to increase worldwide knowledge of mental health in older adults and on determining how to inform and support all professionals to work together to offer continuity and quality of care to users of all ages.

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