BRIEF COMMUNICATION

Memoryporosis, Memorymalacia, and More: Describing Dementia with Person-Friendly Onomastics

SANJAY KALRA*, SARTHAK KUKREJA†, NITIN KAPOOR‡

ABSTRACT

This communication proposes person-friendly terminology for various memory disorders and cognitive impairment syndromes, including dementia. Building upon the lexicon of bone health, it proposes words such as memorypenia, memoryporosis, memorymalacia, and memorypetrosis to describe mild cognitive impairment, "irreversible" dementia, short-term dementia, and hyperthymestic syndrome, respectively. These nouns offer a nonjudgment, person-friendly and socially acceptable way of defining and describing memory disorders. Through discussion and debate, these onomastic inventions should gain acceptance in professional as well as informal discourse.

Keywords: Cognitive impairment, dementia, delirium, osteomalacia, person-centered care, osteoporosis

MEMORY

Memory is the ability to retain information or representations of past experiences. It is a process that involves three distinct stages: encoding, where experiences or learned information are registered and established as records in the central nervous system; storage, where this information persists for varying durations; and retrieval, where stored information is accessed and utilized as needed1. Memory and cognition are distinct yet interconnected. Memory specifically deals with storing and recalling information, whereas cognition is a broader term encompassing various mental functions, such as complex attention, executive function, learning, language, perceptual-motor abilities, and social cognition. For example, memory involves recalling the rules of chess, while cognition entails strategizing the next move based on those rules.

While memory is popularly perceived as a physical "thing" stored in the brain—akin to data on a hard drive—modern neuroscience views it as a dynamic process involving chemical and structural changes between neurons. It is not about how much memory the brain can hold but how the vast amounts of information processed daily are integrated into broader cognitive processes.

MEMORY DISORDERS

Memory impairments are frequently part of broader neurocognitive disorders (NCDs), which include conditions that impair reasoning, decision-making, and communication. While some degree of memory loss is a normal aspect of aging, it becomes pathological when it accelerates or is accompanied by significant functional decline. These disorders are categorized differently across classification systems: in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, Text Revision (DSM-5-TR)², they are classified as major and mild NCDs, emphasizing underlying pathological processes, whereas the ICD-11³ categorizes them into delirium, dementia, amnestic disorders, and mild NCDs. Differentials for dementia include conditions such as mild cognitive impairment, delirium, and normal agerelated forgetfulness. Additionally, psychiatric disorders, such as depression, post-traumatic stress disorder, and dissociative disorders, may present as memory or cognitive complaints rather than overt mood symptoms.

Address for correspondence

Dr Nitin Kapoor

Dept. of Endocrinology, Diabetes and Metabolism, Christian Medical College, Vellore, Tamil Nadu - 632 002, India

E-mail: nitin.endocrine@gmail.com

^{*}Treasurer, International Society of Endocrinology (ISE); Vice President, South Asian Obesity Forum (SOF); Bharti Hospital, Karnal, Haryana, India

[†]Medical Officer, Dept. of Psychiatry, All India Institute of Medical Sciences, New Delhi, India [‡]Dept. of Endocrinology, Diabetes and Metabolism, Christian Medical College, Vellore, Tamil Nadu, India; Noncommunicable Diseases Unit, Baker Heart and Diabetes Institute, Melbourne, Victoria, Australia

BRIEF COMMUNICATION

Cognitive impairments can also result from medication side effects (e.g., anticholinergic or antihistamine use), sleep disturbances, and substance use disorders, further complicating diagnosis and management⁴⁻⁶.

Memory is important from a diabetes care perspective, as diabetes dementia is increasingly being recognized and diagnosed⁷. While dementia, including vascular dementia, is a commonly encountered condition, other types of dementia are also known.

MEMORYPOROSIS

The term memoryporosis has been used earlier, as a less threatening, more acceptable synonym for dementia. The authors suggest the use of this term not only for persons living with dementia, but also for health care professionals who feel cognitively challenged and overburdened by their work.

NEWER TERMS

The adoption of terms such as "memoryporosis" is part of a broader effort to reduce the stigma associated with dementia and other cognitive disorders. Research consistently shows that stigma—negative attitudes toward individuals based on distinguishing characteristics—has significant implications for health outcomes, contributing to feelings of marginalization and exacerbating distress. The World Health Organization has recognized the widespread stigma faced by older individuals with dementia, emphasizing that it "accentuates and deepens the distress experienced by the person"^{8,9}.

By offering a more neutral and less threatening alternative, the term "memoryporosis" reframes dementia as a condition that, while serious, is part of the broader spectrum of cognitive aging. This reframing aims to reduce the social stigma often associated with dementia, which can confine individuals to a singular, stigmatized identity.

Taking a cue from this discussion and from existing terminology in bone and mineral health, we expand the lexicon of memory disorders. We suggest newer synonyms for various memory disorders, based upon their clinical characteristics (Table 1).

Memory loss has a wide variety of causative factors. Memorymalacia may be used to describe correctable causes of dementia, such as nutritional deficiency, hyponatremia, and hypothyroidism. An analogy can also be drawn with the T- and Z-scores that are used in bone health assessment. Age-related memory

Table 1. Newer Terms for Memory Disorders **Newer terminology** Standard terminology Memorymuddle Memorypenia Mild cognitive impairment Memoryporosis Dementia Early onset dementia Juvenile memoryporosis Memorymalacia Amnestic disorders without associated cognitive feature Memoryplasticity Memorypetrosis Hyperthymestic syndrome

impairment should be assessed in a manner similar to Z-scores, rather than T-scores. Memoryporosis, on the other hand, may be more appropriate for relatively nonmodifiable etiologies, such as Alzheimer's disease, vascular dementia, and structural or traumatic brain lesions. This concept bears resemblance the constructs of osteomalacia and osteoporosis.

Drug-induced memoryporosis is well-known, just as drug-induced osteoporosis is. Similarly, juvenile memoryporosis implies early onset dementia, just as juvenile osteoporosis refers to the occurrence of osteoporosis in younger individuals. Memorypetrosis suggests rigid, inflexible, and maladaptive memory retention, which may occur in conditions such as hyperthymestic syndrome. The suggested phraseology can also be used to describe memory-related phenomena such as transience, absent mindedness (memorymuddling), misattribution (memorymalacia) suggestibility (memoryplasticity), bias (memorydysplasticity), and persistence (memorypetrosis).

This onomastic exercise is a first step towards facilitating and fostering discussion and debate regarding the nomenclature of memory disorders.

REFERENCES

- Squire LR. Memory and brain systems: 1969-2009. J Neurosci. 2009;29(41):12711-6.
- Diagnostic and Statistical Manual of Mental Disorders.
 5th Edition, Text Revision. Washington, DC, American Psychiatric Association; 2022.
- World Health Organization. International Classification of Diseases, 11th Revision. Available from: https://icd.who. int/en. Accessed November 12, 2024.
- Dmochowski RR, Thai S, Iglay K, Enemchukwu E, Tee S, Varano S, et al. Increased risk of incident dementia following use of anticholinergic agents: a systematic

- literature review and meta-analysis. Neurourol Urodyn. 2021;40(1):28-37.
- Sewell KR, Erickson KI, Rainey-Smith SR, Peiffer JJ, Sohrabi HR, Brown BM. Relationships between physical activity, sleep and cognitive function: a narrative review. Neurosci Biobehav Rev. 2021;130:369-78.
- Millan MJ, Agid Y, Brüne M, Bullmore ET, Carter CS, Clayton NS, et al. Cognitive dysfunction in psychiatric disorders: characteristics, causes and the quest for improved therapy. Nat Rev Drug Discov. 2012;11(2):141-68.
- 7. Kalra S, Dhar M, Afsana F, Aggarwal P, Aye TT, Bantwal G, et al. Asian Best Practices for Care of Diabetes in Elderly (ABCDE). Rev Diabet Stud. 2022;18(2):100-34.
- 8. Milne A. The "D" word: Reflections on the relationship between stigma, discrimination and dementia. J Ment Health. 2010;19(3):227-33.
- 9. Low LF, Purwaningrum F. Negative stereotypes, fear and social distance: a systematic review of depictions of dementia in popular culture in the context of stigma. BMC Geriatr. 2020;20(1):477.