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Psychological theories of dementia

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Dementia is not a normal part of aging. It is a slow disease, starting with mild memory problems and ending with severe brain damage. It is not possible to understand, diagnose and properly treat dementia without the contribution of psychological research, which has made and will certainly continue to make an important contribution in this field. It plays a major role in the development of programs aimed at reducing the risk of dementia or awareness programs. A bio-psycho-social approach to understanding the experience of dementia provides an appropriate model for identifying factors that determine the nature of dementia, disease progression, and appropriate interventions. This article focuses on the psychological perspective of the nature and experience of dementia. It provides a theoretical explanation of the symptoms of dementia from the major schools of thought in psychology, namely the psychodynamic, behavioral, developmental, and cognitive schools.

Key words: Alzheimer disease, dementia, bio-psychosocial approach, psychodynamic, behavioral

INTRODUCTION

Dementia is a rapidly growing problem in the developing regions of the world. Low levels of awareness regarding dementia as a chronic degenerative brain syndrome are chief characteristics of these societies. In 2005, it was estimated that 24.3 million people worldwide and 1.8 million people in India were affected by dementia [1]. In India, the number of people with Dementia of Alzheimer's Type (DAT) and other dementia is increasing every year because of the steady growth in the older population and stable increment in life expectancy and it is expected to increase two-fold by 2030 and three-fold by 2050 [2]. The annual number of new cases will begin to climb sharply around the year 2040, when all the baby boomers will be over 65. Two factors contribute to this change: an increase in the number and proportion of people who survive to the oldest ages where dementia is more frequent [2] and an increase in survival rates of people with the disease [1].

Dementia is not a normal part of aging. It is a slow disease, starting with mild memory problems and ending with severe brain damage. The term dementia refers to a loss of intellectual capacity that interferes with everyday functioning as a result of specific disease or condition [3].

One cannot deny the negative psychological impact of dementia on the sufferers as well as on the caretakers or guardians of dementia patients. As every individual is different, the impact is also different for each person. Dementia is defined by impairment of memory, language and reasoning, its most troubling disturbances and psychiatric symptoms are often

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behavioral, it is etiologically nonspecific syndrome and may be caused by Alzheimer's disease, frontal lobe degeneration; stroke, basal ganglia degeneration, multiple sclerosis, trauma brain tumors, brain infection, AIDS, Creutzfeldt-Jakob disease, hydrocephalus Depression, toxic or metabolic disorders [4].

Proper understanding, diagnosing, and treating of Dementia is not possible without the contribution of psychological researches it has and will definitely continue making significant contribution in this area. It has a major role in the development of such programs that aims at reducing the risks of developing dementia or in short awareness programs. Psychologists make sure that human rights of people with dementia should not be violated so that they (people with dementia) could have an active and meaningful involvement in making decisions about their own lives and in planning and evaluating the services they receive. When the focus is on the person and not only on the management of symptoms or disease then its more beneficial for effective management of dementia people and it helps them to live well with dementia. A bio-psychosocial approach to understanding the experience of dementia provides an appropriate model to identify the factors that determine the nature of dementia, progression of the illness and appropriate interventions.

This article focuses on psychological perspective of the nature and experience of dementia. It provides a theoretical explanation of symptoms of dementia from some major school of thoughts of psychology i.e., psychodynamic, behavioral, developmental and cognitive.

PSYCHODYNAMIC CONCEPTUALIZATION OF DEMENTIA

The term "psychodynamic" is broad, but when we talk in terms of dementia, it includes psychoanalysis, ego analytic theory, ego developmental psychology, object relations theory, and self-psychology. Dementia is a vulnerable disease that results in weakened ego functioning, diminished mastery over the environment and increased dependency. It's the ego that helps people resist the urge to engage in behaviors that could be in conflict with how a person thinks or feels. This internal control is what helps you "do the right thing," especially in situations where it can be tempting to take actions that go against your personal values. Its regarded as internal voice of reason – it's what helps motivate you to ensure your behavior is congruent with how you see yourself. But unfortunately, this ego is weakened among Dementia patients.

The weakened ego trigger unresolved psychodynamic conflicts, depending on the adequacy of defenses [5]. In the early stages of dementia, several defense mechanisms are used by the weakened ego like denial, projection, splitting or withdrawal, in order to protect itself from current and subsequent losses. As the person progresses through dementia stages, the individual struggles to maintain a sense of self and becomes increasingly dependent. There is a sudden increase in the need of reassurance and shadowing of others. Gradually, the defense mechanism fails and individual becomes more distressed, showing signs of aggression, agitation, hostility, outburst, catastrophic reaction, isolation, despair, and loneliness. Self-psychologists and object relations theorists highlight how people with dementia compromise their capacity of maintaining their sense of self through internalized self-object relations. Ego-syntonic behaviors (behaviors that are aligned with personal values and self-image) in dementia patients is compromised and exchanged with ego-dystonic behaviors (actions that are inconsistent with ego). People with dementia depend on others for maintaining sense of self by letting the ego functions be provided by them [6,7] resulting in ego dystonic behaviour. This dependency on the other hand, leads to the development of feelings of lack of confidence, apprehension of being separated from their loved ones, and the need to be in constant contact. Dementia patients doesn't suddenly shift their behaviors from being largely ego-syntonic to being mostly ego-dystonic – this is a change that happens over time.

The past experience merges with the present situation, which stems from decline of memory. It can be of benefit as well as of loss. Hence, it can support self-concept and enhance self-worth if the images of past evoke a sense of pleasure and accomplishment. On the other hand, it may also fragment the self (e.g., if dead or absent individuals are thought to be alive in the present or, if the people from the past are not recognized or remembered in the present). As the disease progresses and becomes severer, the ability to consider others as a mean to enhance one's sense of self becomes also impair, resulting in extreme confusion, anxiety, and psychotic defenses [8]. Several treatment models for individuals with dementia are based on psychodynamic theories. The basic rationale for approaches based on these theories is that ego functions and object relationships can be maintained through a safe, accepting therapeutic relationship, where the individual feels understood and supported [9].

BEHAVIORAL CONCEPTUALIZATION OF DEMENTIA

A thorough assessment is critical in determining which approach is most appropriate when dealing with difficult behavior(s). The behavioural approach is a valuable and

effective method for treating the behavioural symptoms of dementia. The behavioural approach emphasises the managing of disabilities and the modification of problematic behaviours. By understanding the underlying causes of these symptoms and using behavioral principles to modify them, individuals with dementia can experience an improved quality of life and greater engagement with their surroundings. Hence, in general, behavioral interventions are associated with reductions in the overall level of behavioral disturbance [10]. Healthcare professionals refer to three behavioral theories, or models, to help in explaining the changes in behavior:

- unmet needs;
- progressive lower threshold;
- learning (ABC) theory.

THE UNMET NEEDS MODEL

The Unmet Needs Model [11,12] postulates that the dementia process results in a decreased ability to meet one's needs because of an increasing difficulty in communicating these needs, and a decreased ability to provide for oneself [13]. The needs may pertain to pain/ health/ physical discomfort, mental discomfort, the need for social contacts, uncomfortable environmental conditions, or an inadequate level of stimulation. According to the Unmet Needs Model, problem behaviors result from an imbalance in the interaction between lifelong habits and personality, current physical and mental states, and less than optimal environmental conditions. When a person has needs that cannot be expressed verbally, they often communicate through their actions. Babies are unable to communicate their needs so they use actions such as: crying, tantrums, throwing things, etc. Individuals with dementia face similar situations because the illness affects their ability to organize their thoughts or find words quickly. Unable to express their needs to their caregiver, they may use other strategies like yelling, agitation, aggression, etc.

PROGRESSIVE LOWER THRESHOLD

There are various challenging behaviors that are associated with Alzheimer's disease and related dementia (ADRD). In order to reduce these challenging behaviors a proper understanding of Progressive Lowered Stress Threshold Model (PLST) can be very beneficial. PLST can provide a frame of reference for understanding such challenging behavior. PLST model holds the assumption that people with ADRD have difficulty in comprehending, receiving, processing, and responding to the stimuli from the environment [14]. People with dementia face such difficulty because of the continuous deterioration in cognitive, affective, and functional abilities. The severity and frequency of behavior vary according to environmental factors and the stage of dementia in which the person is. As the stages of dementia advance correspondingly, the behavior becomes more and more typical. Person with dementia encounters stress on a daily basis and these stress inducers can be internal as well as external. These stress inducers are thought to be at the root of behavioral disturbances such as hitting, resisting care, yelling, anxiousness, pacing, and sun downing. Everyone has a point when they become agitated at something within the environment or something internal. Some have a higher threshold for stress than others. For people with dementia, the threshold for agitation is very low. When dealing with stress in their environment the person with dementia can become overwhelmed and act out as a result.

LEARNING ABC THEORY

The ABC model is a framework used to understand behavior and identify potential interventions to modify or improve problem behaviors. When it comes to individuals with dementia, the ABC model can be particularly useful in identifying and addressing challenging behaviors. These behaviors may include agitation, aggression, wandering, or verbal outbursts, among others. This theory also focuses on the impact of a caregiver's response to the behavior of a person with dementia and how that response can potentially perpetuate the behavior(s).
This theory looks at:

- antecedent (triggers) for the behavior – what happened before the behavior;
- the behavior(s);
- the consequence or what happened after the behavior and caregiver's response to the behavior(s).

The response from another person or the caregiver can make the behavior better or worse. The ABC method gives clinicians an idea of what could be causing the behavior and how the behavior might be reduced or maintained depending on the responses of others. Behavioral theories provide explanations for Behavioral and Psychological Symptoms of Dementia (BPSD) which occurs at a later stage. Having a theoretical framework helps to address these symptoms of dementia. The important thing to remember with these models is that they offer various ways of thinking about the causes of BPSD and therefore help to guide how best to manage BPSD. Just like medication, sometimes one type is sufficient to treat the medical issue, other times a combination of drugs is required.
By using the ABC model to better understand challenging behaviors in individuals with dementia, caregivers

and healthcare professionals can develop targeted interventions that address the root causes of these behaviors and promote better outcomes for both the individual and their caregivers.

RETROGENESIS THEORY: PIAGET DEVELOPMENTAL LEVELS AND STAGES OF ALZHEIMER DISEASE

Individuals suffering from dementia often tended to become 'childlike' as the disease progressed [15]. Researchers have focused on elucidating this process of "returning to childhood" that has been anecdotally documented to occur in patients with dementia. Degenerative mechanism reverses the order of acquisition in normal human development, this process is known as Retrogenesis [16] and involves functional, behavioral, cognitive, and neurological degeneration as well as to the neuro-pathological changes that occur in dementia. This process of retrogenesis is so robust that the stages of Alzheimer's disease can be translated into corresponding developmental ages. This is important because awareness of the participant current developmental age can assist in providing proper care and management of Dementia patients.

Ajuriaguerea and Tissot [17] were the first researchers to take an empirical approach to the study of retrogenesis. They observed that the decline in certain capacities in dementia appeared to reverse Piaget's developmental stages. Four major stages of Jean Piaget's theory of intellectual [18] have emphasized the interactive relationship between internal operations and environment in the acquisition of knowledge. Cognition and behavior development in children and loss in people with dementia is found to be remarkably similar [19]. Alzheimer patients go backward through the sensorimotor, preoperational, concrete operational and formal operation stages defined by Piaget.

Although the retrogenesis theory may not be strictly true in all cases, it is a framework that may be helpful to developmental psychologist, neuropsychologist, occupational therapist, physical therapist, speech therapist and social workers and other rehabilitation professionals to examine the qualitative nature of changes taking place in patients with AD. It holds implication for rehabilitation professionals with a specific emphasis on involving young children in rehabilitation programs and designing activities that are appropriate to the developmental age of older adults with AD. With careful planning and implication of evidence-based treatment practices, positive consequences can be expected for behavior and cognition, including a reduction in the speed of decline.

ERIKSON'S LIFE CYCLE: OUTLOOK TO DEMENTIA

According to Erikson, the dominant antithesis in old age is "integrity *versus* despair" [20]. As interpreted by Miller, integrity involves "the acceptance of one's limitations, a sense of being a part of a larger history that includes previous generations, a sense of owning the wisdom of the ages, and a final integration of all the previous stages" [21]. Despair, conversely, refers to "a disgust of one's self, regret for things done and not done, and a fear of death" [21]. Erikson interpreted the basic strength at this stage as that of wisdom, or "an informed and detached concern with life itself in the face of death itself" [20]. In essence then, "old age is a time of wisdom forged out of a search for meaning in the face of death" [22]. How can this developmental context be applied to dementia? One could argue that despair is the inevitable outcome here, because patients with advanced dementia often lack the faculties to forge such wisdom and meaning at this stage in their lives due to their illness. An equally simplistic view treats dementia as a representation of a reversal of the stages of Erikson's life cycle. This view might be supported by some caregivers who witness first hand that, just like at the beginning of their lives, dementia patients need help with decisions, dressing, feeding and hygiene, and they tend to exhibit behavioral problems [23].

Erickson's [24,25] theory of psychosocial development provides a theoretical framework for Reminiscence and life review approaches for older adults. Promotion of intrapersonal and interpersonal functioning and improvement of well-being are the primary goals of reminiscence therapy. Reminiscence functions intrapersonally to enhance self-understanding and a sense of personal continuity, aid in achieving a sense of meaning to one's life, and facilitate resolution of the final life state-ego integrity versus despair. Reminiscence also serves interpersonal functions such as leaving a legacy [26-28]. The goals of reminiscence therapy are typically achieved with the use of themes, props, and triggers [29]. One problem lies in whether the use of these tools will necessarily promote the sorts of reflection and integration of experience which are the critical components to achieving resolution of the crisis of ego integrity *versus* despair.

ATTACHMENT THEORY AND DEMENTIA

According to John Bowlby's attachment theory, a child's relationship with their caregiver plays a significant role in how they will develop relationships in the future. This theory can also benefit those with dementia by explaining why certain people may become more reliant or attached when faced with this condition. It also offers insight into

how their connections may have been developed in the past. Even if a person develops dementia, it has been hypothesized that attachment types formed in infancy are likely to last into adulthood [30]. It may be possible to better understand and assist people with dementia by having a better understanding of the attachment types that form during childhood. For instance, if a caregiver is aware that the patient has had trouble developing relationships in the past as a result of attachment difficulties, they may be better able to comprehend why particular behaviors are occurring now and how best to treat or manage them moving ahead. Therefore, understanding a person's history of attachments can give caregivers important information about the potential causes of challenging behaviors linked to dementia so they can create effective intervention plans tailored to meet the needs of each individual. It can also give caregivers further insights into what might agitate or distress specific patients based on prior experiences from earlier stages of development [31-33].

CONCLUSIONS

The behavior of dementia patients cannot be explained with the help of a single theory or explanation. This article has discussed in detail about psychological theories of dementia, these theories contribute to our understanding of dementia symptoms; however, neither encompasses all the holistic elements (cultural, spiritual, geographical, psycho-economic, social, educational, environmental and physical) of concern of dementia. In conclusion, dementia has many dimensions that have been explained by multiple theoretical perspectives. Collectively, these theories reveal that dementia is a complex phenomenon still in need of research. Dementia results from interplay of bio-psychosocial factors. Health professionals can use this knowledge as they plan and implement ways to promote the health care of dementia patients. Therapists are developing a rich body of knowledge regarding the care of demented individuals; these psychological theories provide them theoretical knowledge on the basis of which they can plan their intervention strategies.

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References

1 Ferri CP, Prince M, Brayne C, et al. Global prevalence of dementia: a Delphi consensus study. The Lancet 2005;366:2112-2117. https://doi.org/10.1016/s0140-6736(05)67889-0

2 Mathers C, Leonardi M. Global burden of dementia in the year 2000: summary of methods and data sources. World Health Organization 2006 (wwwsemanticscholarorg. Ref Type: Generic. Available: https://www.academia.edu/47453483/Global_burden_of_dementia_in_the_year_2000_summary_of_methods_and_data_sources).

3 Weiner MF. Clinical diagnosis of cognitive dysfunction and dementing illness. In: Weiner MF, Lipton AM, Eds. The dementias; diagnosis, treatment, and research. Washingtgon, D.C.: American Psychiatric Publishing, Inc. 2003.

4 Cumming JL. Depression and Parkinson's disease: a review. Am J Psychiatry 1992;149:443-454. https://doi.org/10.1176/ajp.149.4.443

5 Solomon K, Szwabo P. Psychotherapy for patients with dementia. In: Morley JE, Coe R, Strong R, et al., Eds. Memory function and aging-related disorders. New York: Springer Publishing Company 1992, pp. 295-319.

6 Unterbach D. An ego function analysis for working with dementia clients. Journal of Gerontological Social Work. 1995;22:83-94. https://doi.org/10.1300/j083v22n03_06

7 O'Connor D. The impact of dementia. Journal of Gerontological Social Work 1994;20:113-128. https://doi.org/10.1300/j083v20n03_05

8 Sadavoy J. Psychodynamic perspectives on Alzheimer's disease and related dementias. American Journal of Alzheimer's Care and Related Disorders & Research 1991;6:12-20. https://doi.org/10.1177/153331759100600304

9 Hausman C. Dynamic psychotherapy with elderly demented patients. In: Jones GM, Miesen BL, Eds. Care-giving in dementia: research and applications. New York: Tavistock/Routledge 1992, pp. 181-198.

10 Kasl-Godley J, Gatz M. Psychosocial interventions for individuals with dementia. Clin Psychol Rev 2000;20:755-782.

11 Cohen-Mansfield J, Werner P. Environmental influences on agitation: an integrative summary of an observational study. American Journal of Alzheimer's Care and Related Disorders & Research 1995;10:32-39 (https://hsrc.himmelfarb.gwu.edu/sphhs_prev_facpubs/451).

12 Cohen-Mansfield J. Theoretical frameworks for behavioral problems in dementia. Alzheimer's Care Quarterly 2000;1:8-21. https://doi.org/10.1177/153331759501000108

13 Hancock GA, Woods B, Challis D, et al. The needs of older people with dementia in residential care. Int J Geriatr Psychiatry 2005;21:43-49. https://doi.org/10.1002/gps.1421

[14] Hall GR, Buckwalter KC. Progressively lowered stress threshold: a conceptual model for care of adults with Alzheimer's disease. Arch Psychiatr Nurs 1987;1:399-406.

[15] Arango JC, Rogers H. Signos y sintomas psicologicos y comportamentales mas communes en la enfermedad de Alzheimer. Suma Psicol 2002;9:35-53 (https://pesquisa.bvsalud.org/portal/resource/pt/lil-468940).

[16] Reisberg B, Franssen EH, Hasan SM, et al. Retrogenesis: clinical, physiologic, and pathologic mechanisms in brain aging, Alzheimer's and other dementing processes. Eur Arch Psychiatry Clin Neurosci 1999;249(Suppl 3):28-36. https://doi.org/10.1007/pl00014170

[17] De Ajuriaguerra J, Tissot R. Some aspects of psychoneurologic disintegration in senile dementia. In: Mueller CH, Ciompi L, Eds. Senile dementia. Switzerland: Huber 1968, pp. 69-79.

[18] Piaget J. The origins of intelligence in children. New York, NY: International University Press 1952.

[19] Matteson MA, Linton AD, Barnes SJ. Cognitive developmental approach to dementia. Image J Nurs Sch 1996;28:233-240. https://doi.org/10.1111/j.1547-5069.1996.tb00357.x

[20] Erikson EH. The life cycle completed: a review. New York, NY: W.W. Norton & Co 1985.

[21] Miller PH. Theories of developmental psychology. 2nd ed. W.H. Freeman and Co 1989.

[22] Hill RG. Where is the life we have lost in living? The search for personal meaning in Alzheimer's disease. In: Morrissey MV, Caokley AL, Eds. Alzheimer's disease: beyond the medical model. Wiltshire: The Cromwell Press 1999.

[23] Lyman KA. Living with Alzheimer's disease: the creation of meaning among persons with dementia. J Clin Ethics 1998;9:49-57.

[24] Erikson EH. Childhood and society. New York, NY: W.W. Norton & Co 1950.

[25] Erikson EH. Identity and the life cycle. New York, NY: International Universities Press 1959.

[26] Molinari V, Reichlin RE. Life review reminiscence in the elderly: a review of the literature. Int J Aging Hum Dev 1985;20:81-92.

[27] Romaniuk M, Romaniuk JG. Looking back: an analysis of reminiscence functions and triggers. Exp Aging Res 1981;7:477-489. https://doi.org/10.1080/03610738108259826

[28] Romaniuk M. Reminiscence and the second half of life. Exp Aging Res 1981;7:315-336. https://doi.org/10.1080/03610738108259813

[29] Burnside I. Reminiscence group therapy. In: Burnside I, Schmidt MG, Eds. Working with older adults: Group process and techniques. 3rd ed. Boston, MA: Jones and Bartlett Publishers 1994, pp. 163-178.

[30] Bowlby J. Attachment and loss: retrospect and prospect. Am J Orthopsychiatry 1982;52:664-678 https://doi.org/10.1111/j.1939-0025.1982.tb01456.x

[31] Bretherton I. The origins of attachment theory: John Bowlby and Mary Ainsworth. Developmental Psychology 1992;28:759-775.

[32] Browne CJ, Shlosberg E. Attachment theory, ageing and dementia: a review of the literature. Aging Ment Health 2006;10:134-142. https://doi.org/10.1080/13607860500312118

[33] Vries K de, McChrystal J. Using attachment theory to improve the care of people with dementia. International Journal of Work Organisation and Emotion 2010;3:287. https://doi.org/10.1504/ijwoe.2010.032927