It is increasingly recognized that pharmacological treatments for dementia should be used as a second line approach and that non-pharmacological options should, in best practice, be pursued first. This review examines current non-pharmacological approaches. It highlights the more traditional treatments such as behavioral therapy, reality orientation and validation therapy, and also examines the potential of interesting new alternative options such as cognitive therapy, aromatherapy and music therapies. Although many non-pharmacological treatments have reported benefits in multiple research studies, there is a need for further reliable and valid data before the efficacy of these approaches is more widely recognized.

Key words: Alzheimer’s disease, mental health, psychosocial, treatment

Assessment of Dementia

Assessment of dementia has already been covered in the earlier review in this journal.

Common Problems in Patients with Dementia

Behavioural and psychological symptoms of dementia (BPSD) are common, occurring in 90% of those with dementia at some point in their course. These include: (i) hallucinations, (ii) delusions, (iii) misidentifications, (iv) agitation (v) depression (vi) anxiety (vii) aberrant motor behaviour and (viii) aggression. These symptoms may lead to increased psychological morbidity in the carer and often to a need for residential care. Management of BPSD involves a combination of:

(i) support and information for the carer,
(ii) assessment of environmental triggers,
(iii) exclusion of underlying medical causes (i.e. pain, infection) and, finally,
(iv) the judicious use of medications in some cases

Repeated failures at tasks that are transparently of low difficulty level such as “self care”, and “simple activities.”

• Being lost- in the sense of not knowing where they are?
Who are the people around them?, where significant people in their life are?, at which stage of life currently they are?
• Difficulty in communicating with others- poor memory leads to crossed-wires, or the person assumes that the listener has more information then they in fact have.
• Behavior problems- shouting, screaming, wandering, lack of social control, anxiety, depression, agitation, sleep-wake disturbance, suspiciousness etc.
• Some patients accuse other people of stealing their possession.

Impact of Dementia on Family

The development of a dementing illness affects different families and family members in many different ways. It affects spouses, companions, children, grandchildren, and (as in case of AIDS) parents. Family members experience denial, bargaining, anger, depression and acceptance- the stages of adjustment to disability and grief- many times through the illness.

Psychosocial management of Dementia

It has to be understood that the aim of the psychological approach or psycho-social approach is to improve the quality of life of the patient.

Approaches include

- **BEHAVIOURAL** - It is used for the intervention in the management of challenging behaviors in a dementia patient. Emerson has pointed out certain challenging behaviors that these patients exhibit:
  a) Repetitive screaming
  b) Scratching self
  c) Outburst of temper
  d) Hitting own head by hand or by object.
  e) Biting self or others.

Now from a behavioral perspective, what the person actually does is an interaction between his skills and abilities and environmental influences. Thus changing the person’s behavior can be achieved either by changing the person’s environment or by teaching him new skills through Reinforcement or by combination of both.

In dementia, the emphasis must be on changing the environment, as the nature of dementia makes skill learning difficult. However, this is not to say that they cannot learn new skills, they can indeed learn new skills, they can indeed learn.

In real life the concept of reinforcement can be best used for this. Reinforcement can be provided in terms of patting the back or talking to him for sometime etc. for this we should keep these things in mind:
1. What are the conditions/settings in which the behavior typically occurs?
2. Is it affected by some environmental factors (e.g. noise, people, light etc)?

Literature review suggests that wandering behavior and some stereotyped behaviors can successfully be reduced using this technique.

- **COGNITIVE STRATEGIES** - It can be used to reduce the cognitive load on the patient with dementia. A point of caution is that it should be used taking into account the status of cognitive functioning. In reducing cognitive overload, spoken words may be supplemented with relevant pictures and objects to provide a context for what is said which helps in increasing social interaction of these patients.

Other measures include using short simple sentences during conversation and giving instructions by the family members/staff. This reduces the distraction.

External memory aids could also be used to reduce the load on memory. This includes use of cues, prompts etc. But these cues have to be obvious/ salient in nature like picture of toilet on the sign board which is more effective than a symbolic figure.

For e.g., a white board with important information is more effective than a plain diary, if it is placed at the right place (may be where the patient comes frequently).

However, studies indicate that in some cases of dementia, one has to go a step further. This means that one should make them learn the association between cue and its meaning. For example

- **Sound of bell= go to toilet**

Then ask, what sound of bell meant to you. Based on this, a model has been proposed called “Model of cue recall behavior” - It involves:

- **Acquisition** - patient is taught using spaced internal and fading cues, the association between cue and the information. It is meant to prompt e.g. cat picture on door= my room.
- **Retrieval** - whenever cue is encountered in the environment, information is recalled.
- **Maintenance** - because of the retrieval affect, whenever recall is correct, it tends to maintain the association.

It should be used sensibly; only one association is taught at a time, and only few in number. Teri & Gallagher-Thompson have reported positive findings with people in the early stages of Alzheimer’s disease. Individual and group cognitive therapy has also been used by other researchers with some favourable results.

- **REALITY ORIENTATION** - It is most widely used. It is made of 2 parts:

  - **Verbal orientation**: It is the ability to answer question relating to time, place, and person orientation.
  - **Behavioral orientation**: It is the ability to find the way from place to place without getting lost.

In management, generally two aspects are targeted which are 24 hour reality orientation (RO) and reality orientation in group sessions.

24 hour reality orientation is a continuous process. It is totally carried out by using clocks, calendar (for day, month,
Despite these concerns, the debate concerning efficacy into account a decline after the end of the intervention cognitive ability measured in terms of memory recall. Improving communication, functional performance, and evidence was found that reality orientation is effective in improving well-being. Finally, no test data. However, neither study demonstrated that reality orientation is effective in improving well-being. Finally, no evidence was found that reality orientation is effective in improving communication, functional performance, and cognitive ability measured in terms of memory recall. Despite these concerns, the debate concerning efficacy has been largely settled following Spector et al’s favorable review of the six randomized controlled trials of this therapy.

**FORMAL PSYCHOTHERAPY** - There are no controlled outcome studies of formal psychotherapy in persons with dementing illnesses. Person who are cognitively handicapped (i.e., those with low IQ or who are educationally deprived) or who have mild static cognitive impairment can be treated in groups with techniques such as paradoxical intervention, task assignment, promoting identification, reinforcement, education and advice.

**VALIDATION THERAPY** - It was developed by Naomi Feil in 1960s in USA. Originally called as fantasy therapy, it is based on the fact that some of the features associated with dementia were active strategies on the part of the patient to avoid stress, boredom, loneliness etc, as the reality is often too painful for the patient, and he retreats into inner reality (fantasy). In this therapy the therapist just validates the feeling of the patient and then gradually helping him to move from his inner world to the shared reality of the surrounding. It includes the use of empathy, empathic communication, reminiscence and touch to establish emotional contact with cognitively impaired persons. Hitch noted that validation therapy promotes contentment, results in less negative affect and behavioural disturbance, produces positive effects and provides the individual with insight into external reality. However Neal & Briggs felt that one still had to be convinced with respect to its efficacy.

**REMINISCENCE THERAPY** - It includes helping the patient to think about and review positive past experiences eg., Birthday, family holidays, etc. The aim is to provide pleasure and cognitive stimulation by focusing on happy memories.

Although Spector et al concluded that there was little evidence of a significant impact of the approach other studies indicate that this may lead to improvement in certain behavior like self care.

**LIFE REVIEW THERAPY** - It is concerned with correction of negative memories. According to Buechel it is a process of re-evaluation, resolution and reintegration of past conflicts, giving new significance to one’s life.

**ACTIVITY THERAPY** - It emphasizes on activity instead of self-observation and verbally mediated learning. Patient’s attention is drawn away from themselves and towards the accomplishment of pleasurable or useful tasks.

**OTHER MODALITIES** - Are 1) Aroma therapy 2) Music therapy

Special Psychosocial Programmes

- **Educational Interventions for Patients with Dementia and Caregivers**

Short-term programs directed toward educating family caregivers about AD should be offered to improve caregiver satisfaction. Intensive long-term education and support services (when available) should be offered to caregivers of patients with AD to delay nursing home placement. Staff of long-term care facilities should receive education about AD to reduce the use of unnecessary antipsychotics.

- **Functional Performance**

Behavior modification, scheduled toileting, and prompted voiding should be used to reduce urinary incontinence. Graded assistance, practice, and positive reinforcement should be used to increase functional independence. Low lighting levels, music, and simulated nature sounds may improve eating behaviors for persons with dementia, and intensive multimodality group training may improve activities of daily living, but these approaches lack conclusive supporting evidence.

- **Problem Behaviors**

Persons with dementia may experience decreased problem behaviors with interventions such as music, particularly during meals and bathing, walking, or other forms of light exercise.

Although evidence is suggestive only, some patients may benefit from the following:
- Simulated presence therapy such as the use of videotaped or audio taped family member.
- Massage
- Comprehensive psychosocial care programs of music
- Pet therapy
- Commands issued at the patient’s comprehension level
- Bright light, white noise
- Cognitive remediation
• Care Environment Alterations
Although definitive evidence is lacking, the following environments may be considered for patients with dementia.

(i) Special care units within long-term care facilities.
(ii) Homelike physical setting with small groups of patients, as opposed to traditional nursing homes.
(iii) Short-term, planned hospitalization of 1 to 3 weeks with or without blended inpatient and outpatient care.
(iv) Provision of exterior space, remodeling corridors to simulate natural or home settings, and changes in the bathing environment.

• Interventions for Caregivers
The following interventions may benefit caregivers of persons with dementia and may delay long-term placement.

(i) Comprehensive, psycho-educational caregiver training
(ii) Support groups – Additional patient and caregiver benefits may be obtained by use of computer networks to provide education and support to caregivers, telephone support programs, and adult day care for patients and other respite services.

• Family intervention - Since family bears the burden of understanding and managing the patient’s person and property, it is therefore important to address the education and physical and emotional support of family caregivers, after making a diagnosis.

(i) EDUCATION ABOUT ILLNESS - Caregivers often need and want to learn about the cognitive and behavioral effect of dementing illness, its anticipated course and various social and financial consequences of the illness. Different caregivers require different information depending upon the type of the dementia.

(ii) PROGNOSIS - It is a very important issue for families. Most families can tolerate being told that a disease is expected to progress but that the exact course cannot be predicted. They can be told that there may be long periods of no apparent decline. Families of patients with AIDS can be told that there may be significant remission of cognitive symptoms with treatment of underlying disease. In case of vascular dementia, family may be offered the hope that progression may be slowed by the use of aspirin or anti-platelet drugs, but they should also be told that dementia will progress and that plans should be made accordingly. In case of Alzheimer’s disease, they can be told that the disease will progress, that its rate of progression is uncertain. This disease may result in complete inability to communicate or to care for himself or herself.

(ii) FAMILY RISK - Some dementias involve risk to family members. In the case of Huntington’s dementia and Alzheimer’s disease, the risks are genetics. When counseling about infectious disorders such as Jacob disease or AIDS, the clinician indicates that these disease can be communicated only from body fluid to body fluid, suggesting that appropriate precautions be taken.

(iv) OTHER MAJOR ISSUES - Like how supervision is to be arranged, dealing with denial and projection in the family, dealing with family stress etc.

General principles of Managing Dementia:

The principles take into account impairment of individual’s ability to learn.

• ACCEPTANCE - The first principle in managing persons with cognitive impairment is accepting their present level of functioning: learning to value what is still there, and not dwelling on functions they have lost. It is often necessary to tell those individuals who are heavily dependent on the affected person directly that their loved one can no longer be left alone or to maintain nutrition independently.

• NON-CONFRONTATION - This is important in dealing with persons who are unaware of their deficits. A non-confrontational approach requires caregivers to note the abilities and disabilities of cognitively impaired person and then to fill in or compensate for those disabilities.

• OPTIMAL AUTONOMY - To a greater or lesser extent, all persons value their ability to govern themselves and their environment. The task in dealing with cognitively impaired persons is helping them to find and operate at the level of autonomy most consistent with their personal needs and coping abilities.

• SIMPLIFICATION - It refers to reducing the number and complexity of their environment demands and introducing tasks in simple steps rather than as a set of serial or contingent (“if this and this happens do such and such things”) instruction. It is especially helpful with a person who has difficulty dressing and undressing.
Cognitively impaired persons are limited in their ability to provide structure for themselves, and structuring daily activities and the environment often becomes the responsibility of caregivers. Bourgeois et al. have used 3 x 5 inch index cards containing the person’s schedule for the day as a means to reduce repetitive questioning. Sameness means having meals at roughly the same time each day, going to bed at the same time each day, and going to walk or engaging in other activities at the same time daily.

**Multiple Cueing** - It refers to using several different types of stimulus to initiate and maintain a suggested action or activity. Non verbal cues are more useful than the verbal cues.

**Repetition** - It is necessary because of attention deficit and slowness of information processing. If attempting person in a new activity, the person’s attention must be first engaged, usually by calling his or her name. The verbal repetition may be underscored by an additional cue of placing a hand on the person’s arm and entering the field of vision.

**Reinforcement** - It involves the process of encouraging positive behavior.

**Reducing Choices** - Advanced cognitive impairment makes choosing difficult, it is no longer possible to easily weigh the relative value of multiple alternatives.

**References**