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Multi-Purpose Activities in Ergotherapy

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1. Introduction

The elderly population, both in terms of number and relative percentage in society, is increasing throughout the world. Society, relative to previous generations, will be older with a greater burden on health system resources due to chronic ongoing disease and illness management requirements. The demand for services of geriatrics and gerontology in turn increases. Health planners, who define funding levels within government, are required to consider this increasing life expectancy. Long-term care of the unhealthy elderly is a much-debated medical and political issue in developing countries. As the experiences of successful aging increases within society today, attention focusses on what defines successful aging and the factors that promote a healthy aged community (Bowling & Iliffe, 2006). For this reason, World Health Organisation (WHO) described active ageing as improving life expectancy, productivity and quality of life by promoting and maintaining the highest functional capacity of social well-being and physical and mental functioning (WHO, 1998).

Loneliness, a condition relatively common in the elderly, is being increasingly linked to negative quality of life predictors such as chronic diseases, depression and reduced social participation (Alpass&Neville, 2003; Jylha, 2004; Routasalo, 2007). Thoughts of being closer to death, loss of mobility and family bereavement reduce the sense of taking pleasure in life, affecting the extent of community involvement and levels of independence (Alpass&Neville, 2003). This greater isolation from society inhibits effective social behaviour and facilitates passive roles in interactions involving the elderly (Vitkus& Horowitz, 1987). The resulting loneliness and social isolation negatively impacts the psychosocial situation of well-being, the quality of life and cognitive skills (Routasalo et al., 2007).

Researches suggest the interest in and skills associated with activities of daily living are reduced with aging, because of changes in health and social issues commonly experienced in the elderly (Clark&Siebens, 2005; Routasalo et al., 2007; WHO, 1998). Remaining physically, mentally and socially active, things like "doing work", has great importance in maintaining functioning as does the need to avoid excessive levels of the more passive recreations, such as watching television. Indeed, many problems derive from having more unstructured free time. Meaningful leisure time in the elderly is essential to a good quality of life. In Yucel's thesis, the majority of elderly people stated that in their free time, they like to be involved in tasks such as reading and walking. The respondents would prefer not to participate regularly in physical activities. They could not give a concrete reason for this behaviour. One plausable explanation

is the elderly may not be conscious enough about the benefits of regular activity programs and the consequences of their relative withdrawal from these (Yucel, 2008).

In a study in Brazil, the lack of adequate financial resources (40.3%) along with fatigue (38.1%) were identified as obstacles to the participation of the elderly in leisure activities (Reichert et al., 2007). Motivation is critical to the success of activity programs designed for the elderly. Many elderly have concerns about participating in activity programs, because they have developed negative behaviors and beliefs throughout their lives associated with activity. Barriers to activity programmes, such as having to park their cars long distances away, along with other factors such as snow and ice, inhibit involvement. Reducing these barriers to exercise is necessary for a more independent and "strong" elderly community (Resnick, 1991; Yoshimoto & Kawata, 1996).

Participating in activities and social integration is one of the important approaches to rehabilitation in the elderly. Ergotherapy programs are created to help to protect life roles in geriatrics. They promote active aging and overall quality of life through participation in activities designed and prescribed to the needs of the individuals (Boswell et al., 1997; Rosalie, 2003). Activity training, which facilitates an active aging process, is an important part of a comprehensive ergotherapy program in the elderly. It aims to care about health, to increase cognitive, emotional and physical capabilities, and ensure the independence of social functions through the choice of different activities in accordance with the individual requirements and needs of the elderly (Donohue et al., 1995; Lachenmayr&Mackenzie, 2004; Nelson, 1997; Vass et al., 2005).

In a survey of 815 elderly participants in Australia, the most desired activities overall were golf, walking, tennis and swimming. The underlying objectives of these activities were to stay healthy, that they were interested in that activity, they wanted to improve their physical capacity and maintain their overall joint mobility (Kolt et al., 2004). The quality of life of older people engaged in activities of their own choice were higher (Duncan-Myers&Huebner, 2000). Conversely, over 80% of elderly people in America spent their free time by visiting friends, watching television and listening to the radio (Lee&King, 2003). The type of activity is less important, because the differences reflect variables such as the individual's health, associated abilities and socio-economic status, than the actual participation itself. Participation is a stronger predictor of quality of life than the type of activity (Ward, 1979).

The maintenance of health and quality of life in older clientele is promoted through the participation in meaningful and purposeful activities (Csikszentmihaly, 1993; Glantz, 1996). The study of Inal et al. showed that life satisfaction scores are significantly higher in elderly people who are interested in a variety of crafts and regular walking (Inal, 2003). In people with life-long activity goals, such as participating in regular physical activity, the normal physiological changes that occur with aging were seen to be delayed or less severe. Elderly people who have defined leisure time activities have a higher quality of life.

Furthermore, Routasalo et al. (2007) showed increased psychological well-being and improved cognitive skills in the elderly by the implementation of activity training. The type of activity prescribed needs to be based on the individual. Studies have showed that leisure / hobbies / social activities are preferred for elderly that have mental health problems rather than physical problems (Mountain, 2005a). Cognitive tests increased significantly in patients with vascular dementia by applied activity treatment (Nagaya et al., 2005). These results suggest that activity training may be protective against the formation of a new

dementia. Further investigation into the capacity of multi-purpose activity to inhibit the development of conditions such as depression and dementia in the elderly is necessary.

Whether activity prescribed to the elderly is given on an individual basis or should constitute a group format is open to debate. Researchers following the second world war investigated group behaviour. They concluded people need each other, not just to maintain themselves, but also to feel fulfilled in their lives. The most basic group is family with the members sharing responsibilities and performing required specific tasks. Families expanded roles includes activity such as plays, school activities and the involvement in religious and recreational organizations. All which enhance the integration of life goals and promote the individual's overall quality of life (Matsuo et al., 2003; Royeen & Reistetter, 1996; Yucel et al, 2006a). Some people are social, enjoy spending time with others, while others would prefer to be alone. Some still enjoy making new discoveries, while others want to continue with long-standing interests. Whether the activities are completed as an individual or in a group, whether they are novel or long standing, best reflects the needs and wants of the individual. The elderly should be encouraged to participate in activities appropriate for, and which interest, them. The regular continuity of activities is an important factor in enhancing quality of life.

Future research exploring concepts such as the reintroduction of extinct roles to the elderly, or increasing the diversity of the types of activity undertaken within a specific role, and the implications on quality of life and life satisfaction are necessary. Studies in different ethnic or cultural groups should be encouraged (Ross, 1990). Elderly people need increased diversity of activities to maximize the process of an active older age. Future education and training of health workers in geriatrics is necessary to promote a conciousness of the importance of roles in health outcomes and to provide the skills that facilitate the prescription of optimal activity; activity that best reflects the needs and wants of the individual older person. Activities are as necessary as eating or drinking and to have life; each individual should have regular activity within and outside the home based on their roles and physical and mental health.

This chapter will be issued as below:

Ergoterapy Approaches in Geriatrics, Importance of Leisure Time Activities, Multi-purpose Activities, Activity Training Models, Activity Training, Group Activities.

2. Ergotherapy aproaches

In geriatric rehabilitation, it is important to improve functional capacity and daily living skills of elderly, personal care about areas such as hygiene, rest and nutrition, and to ensure social-emotional support (Lewis&Bottomley, 2002). The goal should be to maintain the independence on functionality of the elderly or to restore if it is decreased.

Considering the following points facilitates to plan appropriate rehabilitation program in geriatrics:

1. There can be the capacity differences among elderly. In training programs which is planned within the scope of rehabilitation for the elderly, the capacity of individuals has to be known. Chosen approach is not important for any activity training for strengthening, but there are some circumstances to be considered peculiar to elderly. For example, late pupil dilation and thickening of the lens with aging mean

environmental clarity and projection can not be tolerated. Therefore three times much light are needed for function of the aged eyes. Additionally, the elderly can not detect the color differentiation which is necessary for driving, Activities of Daily Living (ADL) and ambulation. Such physiological changes affect the functionality of the elderly.

- 2. The level of activity differs from one aged to the other. For example, a 80 year old can fulfill the physical and cognitive functions whilst the other of the same age may not success.
- 3. Maximal health is directly associated with the maximal functional ability. Activities that give energy to the elderly to be alive and aim to provide independence in an active life and maintain health should be given to the elderly (Larson et al., 1986; Mountain, 2005a).

Day-care services in geriatric rehabilitation include observation of the elderly by caretakers, caregiver training, daily regular controls of drug intake etc., implementation of treatment services and social / recreational activities. General social services allow older people to maintain their lives in an appropriate environment. And also, they undertake transfer to the hospital and home from the hospital, prevention of diseases and preventive treatment. On the other hand, ergotherapy approaches come into prominence in determining the needs of the elderly, planning/implementation/monitoring of nursing program and revealing of changing needs over time (Mountain, 2005b).

Ergotherapy in geriatric rehabilitation mainly includes the following goals (Yucel, 2006b):

- To maintain basic and enstrumental ADL successfully by increasing physical and/or mental activity performance,
- To restore decreased ability and to improve or maintain quality of life,
- To help to continue on social habits in a society and provide psychosocial support and
- To provide educational support for caregivers.

There are some important cases to be considered in therapy sessions (Lewis&Bottomley, 2002):

- 1. An therapist who is more patient, relevant, knowledgeable and trustable, reduces the tension of the environment. During therapy session, the most important cause of high anxiety in the elderly is being fumble in front of family members and their own therapists, and fear of humiliation. Therefore, characteristics of therapists are important for the elderly to learn, in terms of providing psychological comfort.
- 2. Making frequent changes in the curriculum and environment of the elderly should be avoided as much as possible. Since unknown environment will bother elderly, training in their natural ambient is recommended. Once ability is gained, to adapt it to different environments later on will be more suitable.
- 3. The opportunity of visits to friends and relationships should be given to elderly to be social.
- 4. It should be put emphasis on family / caregiver training/ support. Family / caregiver training in assessment and treatment of the elderly is important. Because family members and caregivers provide actual physical and emotional support for the elderly. Therefore, their role in the solution of problems should be noted (Larson et al., 1986).
- 5. Physical and psychological comfort is essential. Ergonomic factors such as noise level, colors, lighting, ventilation, room temperature, comfortance of chair, table height and slipperiness of the floor should be considered. For example, the sounds of water or a computer come from behind should be eliminated.

- 6. To cope with a feeling of loneliness in the elderly:
 - meaningful relationships are developed,
 - recognizing the names of the people is encouraged to say
 - they are asked to remember the dates of birthdays accurately
 - communicating with plants, animals and children are provided
 - motivation for having something belong to them is provided and
 - alternative occupations are generated.
- 7. To strengthen the memory in the elderly;
 - audio-visual signals are used to introduce an object to be named permanently
 - principles of vocal motivation are applied to emphasize what is important in their lives
 - they are encouraged to tell their past experiences and to explain and discuss previous achievements
 - they are given sufficient time to remember the events
 - strategical games like chess take part of the programmes.



Fig. 1. Backgammon as a cognitive activity for memory strengthening

In ergotherapy, it is possible to increase skills such as spatial orientation, inductive thinking, fluid intelligence, problem solving and memory flexibility by using different methods. The advanced methods of testing and training are expected to contribute more higher-quality, productive and happy aging by reducing the decline in cognitive skills or by emphasizing

cognitive characteristics during this period (Glantz, 1996). Reaching up and bending forward exercises or imagery exercises created from picking up apple from the tree, getting money from ground are effective in the elderly. Imagery exercises develops coordination and cognitive functions. They allow interactive training, because of facilitating a person to format an object mentally (Clark & Siebens, 2005; Nelson, 1997).

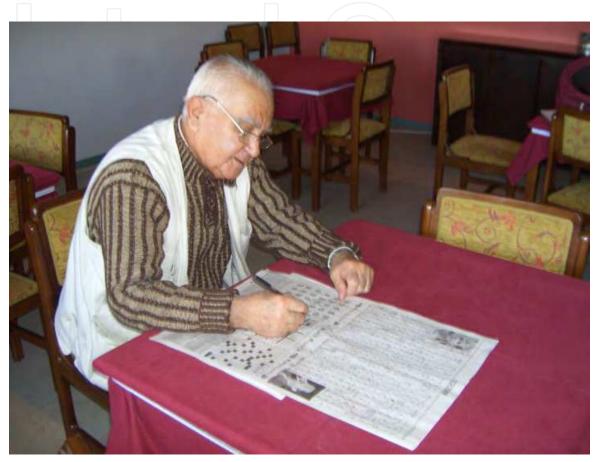


Fig. 2. Making puzzle and crosswords contributes to the cognitive health

Ergotherapy programs promote active aging and overall quality of life through participation in activities designed and prescribed to the needs of the individuals. The culture, satisfaction, motivation, interests and role in society of a person are taken into account. Elderly are encouraged to continue their habits and activities such as; gardening, nonstrenuous sports, painting, handicrafts, building up a collection, simple repair work, singing and movie watching, which they used to enjoy participation. With some suggestions like "go on vacation, make hobbies and sports" elderly are removed from inactivity and negative psychology.

Old age is generally a period of limited environment. In fact, not only aging, but also an unwell organised environment for elderly restricts their power to live alone (Larson et al., 1986; Yucel et al., 2006a). Many elderly are not aware of being at risk of falling. 85% of falls happens especially on the stairs at home in the bathroom and bedroom. Therefore, this situation reveals that environmental changes and adaptations are needed for elderly to survive independently and self-sufficiently (Yucel et al., 2006a).

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Fig. 3. Ergonomic accessibility with proper devices

Assistive aids such as walker should be suggested to increase stability during walking and to relieve stress in painful joints. An ergotherapist is needed to teach the use of assistive aids and joint protection techniques. Safety modifications and family / caregiver / elderly training reduce dangers. And providing adaptive tools which are necessary for age-related changes, positioning, teaching transfers and ambulation, training about health and prevention techniques and home exercise programs to increase the independence are the major topics of work field of a geriatric ergotherapist (Pu&Nelson, 2004).

As a result, service of the targeted rehabilitation to a person is the cornerstone of ergotherapy. Ergotherapy includes ADL, instrumental ADL, psychosocial well being, caregiver training, vocational rehabilitation, social / recreational leisure activities, lifestyle redesign, public health and environmental regulations for performing the roles successfully (Mountain, 2005a).

3. Leisure time activities

During lifelong, towards from young adulthood to middle age, interests and desires increase. Having more free time gives a person the opportunity to involve in an activity. But, leisure time activities in the elderly are more passive and home based. The time spent in outside cultural activities is quite less (Crombie et al., 2004). Older people often spend their times by visiting friends, listening to the radio, watching television and reading at their homes (Lee&King, 2003). Outdoor activities such as; sports, going to the theatre and cinema are activities with less continuity. There are some studies showing that this condition and low levels of recreational activity in the elderly are associated with changes in their body function (e.g. excess body mass index), marital status, low education level, male gender, genetic and metabolic factors (Mc Pherson&Kozlik, 1987; Mouton et al.,2000; Strain et al., 2002; Ross,1990).



Fig. 4. Older people should participate in physical recreational activities

The habits of regular participation in physical activities among the elderly are decreased physiologically (Dipietro, 2001). Activities such as cycling are non-preferred activities, because they may often cause injuries (Gerson Stevens, 2004). In literature there are some studies showing that male elderly are more active, but the role of women in recreational activities are more than men. Conversely, some studies show that women have less leisure time activity (Bruce & Devine, 2002).

Activity restriction in the elderly may be due to functional limitations in areas, such as vision, hearing and mobility (Cambois et al., 2005; Donohue et al., 1995). In a study in the United States, it has been shown that approximately 10% of the elderly have visual impairments cause depression, social dysfunction and lack of activity (Donohue et al., 1995). In the elderly with severe cognitive problems, some failures in memory, expression, orientation, visual perception and other complex abilities are obstacles that elderly require higher cortical functions to participate in some activities (Adler, 1997).

Elderly's interests and skills to leisure time activities may also be reduced due to changes in health and other social areas with ageing (Clark&Siebens, 2005; Routasalo et al., 2007; World Health Organisation (WHO)). Motivation is critical to the success of activity programs designed for the elderly. Many elderly have concerns about participating in activity programs, because they have developed negative behaviors and beliefs throughout their lives associated with activity. Barriers to activity programmes, such as having to park their cars long distances away, along with other factors such as snow and ice, inhibit involvement. Reducing these barriers to exercise is necessary for a more independent and "robust" elderly community (Resnick, 1991; Yoshimoto & Kawata, 1996).

4. Multi-purpose activities

Multi-purpose activities in ergotherapy programs have a positive impact on the independence of the elderly rather than delays of motor aging process. Scientists in twenty first century, specialized in therapeutic recreational activities, have begun to work to find significant and meaningful activities for the elderly (Cottrell, 1996; Heuvelen et al., 1998).

Snoezelen sensory training spreads over a wide area in clinical practice from learning disorders to dementia in the past decade. In this method, primary visual, hearing, touch, taste and smell senses are stimulated with the effect of light, soothing music, touch and relaxation oils (Chung et al., 2002; Lynch& Aspnes, 2004). Besides that vision and hearing are basic requirements of communication, touch is also an important physical sensation component. These sensory inputs should be taken into account in planning a major activity program for the elderly (Lewis& Bottomley, 2002).

Recreational rehabilitation in occupations such as; board games, handicrafts, playing a musical instrument, playing volleyball with balloon and dancing performs cognitive function activation by increasing the blood flow rate of the prefrontal region. There are some studies showed that having been in a leisure time activity like purposeful cognitive activities, such as reading at least two times a week significantly reduces the risk of dementia (Nagaya et al., 2005; Scarmeas et al., 2001; Yucel et al., 2006b, 2010).

Senescence



Fig. 5. Dancing performs cognitive function activation

Elderly are the people who are at risk for anxiety and depression. Social participations in activities such as painting, making music and religious meetings protect elderly from these risks (Lynch&Aspnes, 2004). In a study in the UK, it is stated that many activities are not effective as much as participating in religious gatherings that have a significant impact on well-being and quality of life in aged 50-74 (Routasalo et al.; 2007; Warr et al., 2004). Visiting friends and participating in social groups have positive effects on being healthy, having regular physical activities and carrying out ADL independently (Yoshimoto& Kawata, 1996). Reading is recommended in order to organize the behavior of depressive people and remove negative thoughts (Lynch& Aspnes, 2004). Baklien and Carlsson said that visiting a

library and borrowing books keep people intellectually active (Baklien & Carlsson, 2000, as cited in Wikstrom, 2004).

One of the primary modalities used to treat depression in the elderly is medicine. However, taking anti-depressants without knowing the underlying reason can cause serious side effects. Therefore, alternative therapies are needed. There are many non-pharmacological treatment methods, such as the real orientation, behavioral therapy, sensory stimulation, music therapy and ergotherapy. Reminiscence therapy is also one of them. It is an effective method to gain self-confidence, socialization, well-being, expression and cognitive function. Reminiscence means discussion with a person or a group about activities, events and experiences done in the past, with the help of photos and / or music archive. The elderly indicate that they feel relaxed when they remember nice memories while looking at photo albums. This method reminds all the elderly of having lived a whole life and it still continues (Royeen & Reistetter, 1996; Stinson & Kirk, 2006; Woods et al., 2005).



Fig. 6. Reminiscence therapy

Activities like looking at photo gallery and dancing are important for successful aging and perform daily activities independently. This kind of activities help the elderly to know that they are prepared for changing conditions, express themselves, change their perspectives about the life. Painting or deal with a music are a visual and auditory experience for them (Wikstrom, 2004). That the music takes place in activities becomes a positive influence on well-being of the elderly, especially who has depression and cognitive problems. Music therapy is a proven, easily accessible and useful method to be able to cope with behavior

problems such as stress and anxiety. Activities with musics which old people's own choices are both suitable for the control of agitated behavior and cheap. Carefully selected music tone, type and rythm are important to make activities fun. Light and mid-rythmical music is preferred. Music therapy in different categories, such as orchestral music, piano and jazz, decreases the heart rate and respiratory rate, increases body temperature and also the body relaxation (Hsu& Lai, 2004; Lai, 1999, 2004; Lou, 2001; Sherratt et al., 2004; Sung& Chang, 2005; Hanser & Thompson, 1994). Nevertheless, another study has indicated that music does not have any effect on pain perception in stroke patients having upper extremity exercises (Kim&Koh, 2005). Playing a musical instrument is an effective activity to avoid the elderly from isolation and increase their socialization, and make their free time full (Zelazny, 2001).

Creative activities reduce depression and isolation, and increases the power of decisionmaking of the elderly. Art is a way of opening people's emotional windows and sensory capacity. This kind of activities allow the elderly to express themselves, permit positive effects of well-being, enable physical, sensory-motor and cognitive therapy and teach appropriate ways to respond to the challenges of passing years. For the aforementioned reasons activities hold an important role in ergotherapy (Callanan, 1994; Hannemann, 2006; Mountain, 2005b).

5. Activity training models

There are some basic models that activity training based on the elderly. According to the activity treatment model developed by Mosey in 1977 in the U.S., people's capabilities which are necessary to survive in a wide range of the community are enhanced. This model has been developed to understand why therapists should make assessment and treatment and they suggest specific activities or plan activities in a specific approach to a person. This activity model lost their validity today, because it could not provide an improvement due to focus on personal development. Other models have been developed based on roles. They allow short-term applications. The Canadian Model of Occupational Performance (CMOP) and The Model of Human Occupation (MOHO) are two of them. In these new models, cognitive and behavioral approaches took part in place of psychodynamic perspectives (Chacksfield, 2006; Forsyth & Kielhofner, 2006; Sumsion & Blank, 2006).

CMOP is focused on how a person is successful in self-care and productivity and how he/she performs the roles in leisure time activities and how much satisfaction gives this to him/her. MOHO emphasized on the personal preferences, habits, roles and performance capacity. For example, an elderly person with dementia has to carry out the activity of making a cup of tea. Talking, willingness, motor / physical / cognitive / mental abilities are required for this activity. Social and physical environment, routine work, past experiences and expectations, etc. are questioned by ergotherapist. Both models are not only in activity training, but nowadays also used frequently in all ergotherapy interventions for all the health problems that can be seen throughout the life.

6. Activity training

Activity training, which began to be more popular in the 1940's, is a part of a comprehensive rehabilitation program in the elderly who want to have active aging. It aimes to keep life

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healthy, increase cognitive, emotional and physical capabilities, ensure the independence of social functions through purposeful and appropriate activities designed to the desires and needs of the elderly (Donohue et al., 1995; Lachenmayr & Mackenzie, 2004; Maestre Castelblanque & Albert Cunat, 2005; Nelson, 1997; Vass et al., 1995). Older people find an opportunity to apply activities through their own choice for the expectations, that make them have more higher quality of life (Duncan-Myers & Huebner, 2000).

Ergotherapy plays a significant role to develop the skills in leisure time activities (Glantz, 1996). Ergotherapist explaines the meaning of one's activity by revealing age, gender, role performances, cultural values, wishes and preferences of a person. Evaluation of the special functional activity skills is one of the duty of ergotherapist (Mountain, 2005b). Ergotherapist recommends the elderly activities and social relationships to carry out daily activities, continue existing skills for social integration and gain new skills. Advices to continue a quiet and relax life, listening to the songs of the past, talking to tell, watching the beautiful scenery, being sufficient on maintaining self care, go for shopping, cooking and house cleaning, do sports/water exercises and acquisition of new hobbies are effective for the elderly. Accordingly, these activities help elderly to gain and protect abilities in fields such as communication, cognitive functions or hand motor control. Multi-purpose activity approaches aim to improve special functionality, reintegration activities supported by lifestyle / behavioral and family education, sensory stimulation, encourage the elderly to express themselves and ADL training (Wikstrom, 2004; Yucel et al., 2010).



Fig. 7. Group exercise as multi-purpose activities

Senescence



Fig. 8. Water exercises as an activity training method

The effects of multi-purpose activity training in the elderly:

- 1. It improves physical/psychosocial health and well-being.
- 2. It reduces the feeling of loneliness and establishes a close relationship with environment and increases the verbal interaction. Therefore, the elderly in a society peel off a thought of seeing themselves as redundant individuals. It is provided that the society accepts older people as unique individuals.
- 3. It provides environmental awareness, increases attention and problem-solving ability; reduces orientation distortion, and improves memory.
- 4. It decreases secondary complications such as decubitus ulcer, urinary tract infection, and it is protective against hypertension, diabetes mellitus, some cancers, osteporosis and depression (Crespo & Keteyian, 1996; Pang et al., 2005).
- 5. It reduces vital risk factors and contributes to the long-term protection of health status.

7. Group activities

There are many studies in the literature given activities to the elderly as individual or set in groups. However, general opinion is on behalf of effectiveness of group activity sessions. Because it is protective against feeling of loneleness and a lack of hope (Hannemann, 2006). Group activities develop self confidence, cognitive skills and ability of planning. Making a decision becomes easier. The elderly see their own prodecutivity, feel more comfortable and happy, and become more social in group (Landi et al., 1997).

Group activity is a modality which people, selected carefully, need emotional or physical support, are involved into a group by a trained therapist to help each other. Objectives of group activities are to increase awareness and to develop interpersonal and social skills by interaction with the other group members who provide feedback through behaviors. Compared to individual activities, the two main strong points of group activities are that the person can receive immediate feedback from their peers and there is an opportunity for therapist to observe the psychological, emotional and behavioral responses of each person.

Mills offers six different approaches to work with small group of models (Royeen & Reistetter, 1996):

- 1. Mechanical model: It is a model of mutual interaction with being independent from emotion, norms and believes. Each member controls the behaviors of other members of the group.
- 2. Organism model: In this model, group looks like a biological organism. Each member of the group has different role and responsibility due to his/her nature.
- 3. Complex model: This model advocates that independence in the changing needs of people and their obtained resources are limited.
- 4. Balance model: This model ensures a balance between internal needs and external requirements of the group.
- 5. Structural functional model: It is a model not only increases its resources, but it is also willing to change the structure and function of the group.
- 6. Growth model: This model develops depending on the capacity of members of the group and processes information.

Duncombe and Howe have formed ten different ergotherapy groups (Duncombe & Howe, 1985, as cited in Royeen& Reistetter, 1996):

- 1. Exercise group: Groups are generally formed in such exercises as volleyball, bowling and ping pong in rehabilitation centers and schools.
- 2. Dining group: This kind of groups are generally being in psychology and rehabilitation programs. Activities in these groups have menu planning, shopping, cooking and eating sections.
- 3. ADL Group: In these groups, people are prepared to live independently in the community by increasing the required self-care skills.
- 4. Handicraft group: In this group, art and craft skills are used for psychosocial evaluation and treatment of disabilities.
- 5. Task group: This group gives social, recreational and educational activities in tasks such as organizing a picnic and publishing newspaper to facilitate communication and socialization.
- 6. Self-expression group: In this group, interactive work among members is provided to the elderly with pictures, music and self-awareness exercises.
- 7. Reality orientation discussion group: Role simulation is provided to improve socialization and communication skills in this group.
- 8. Sensory-motor and sensory integration groups: Thorough these groups, integration of physical skills and sensory development are aimed to increase in the individuals with a wide range of problems like learning disabilities, hearing and visual problems and lack of sense of integrity.

- 9. Oriented sensation groups: Performing some roles in the style of the game and discussing in poetry and fantasy groups are performed in these groups.
- 10. Education group: There are groups, individuals and their families receive and discuss information on issues such as drugs.

There are some important factors to consider to determine the suitability of a person in a group (Ozmenler, 2005):

- 1. The possibility of a high level of a peer anxiety in a person, who has a negative reaction to be in a group, should be considered. Elderly who have destructive relationships with their peers do not want to be in a group, but that will be useful, if they can come to deal with being in a group. On the other hand, those who worry about authority too much, usually with fear of a therapist criticism, may be reluctant to express their thoughts and feelings in a seperate media. So that, they may accept the group as a nice treat and generally prefer group activities. Group media is more comfortable, because of being usually bilateral (one to one) environment (Landi et al., 1997).
- 2. Determining of impairments of the elderly is important to choose the best activity approach and assess their motivations, capacities and the strengths and weaknesses in their personality. For example, antisocial people do not find a heterogeneous group good and do not accept group standards.
- 3. It is needed that the therapist gives a detailed depiction of the process to the elderly as possible and to responds every question of the elderly.
- 4. Group activities are successful in three to fifteen members. Mostly groups with eight to ten members are preferred. The sufficient interactions may not be received in small groups with fewer members. With more than 10 members, the members or the therapist can not follow what is going on. Small groups are the smallest representatives of large communities. It may be difficult to work with large group. So, small groups are preferred (Royeen& Reistetter, 1996).
- 5. Groups are collected two times per week. One is with therapist and the other one is without therapist. It is important to maintain continuity of sessions. Usually group sessions take 1-2 hours. The time limit should be fixed.
- 6. Educational planning for the elderly often takes place in ergotherapy training programs. Visual aids and adaptations are used, such as timing and the number used for each person in the group.

The effectiveness of group activities are measured as follows:

How much did the group members reach the objectives? What is satisfaction level in each individual? What are quality and quantity of the product?

As a conclusion, good planning should be done in order to encourage the elderly to participate in the activity regularly and continuity. National campaigns are expected to be necessary and effective for the elderly to change perceptions about their levels of physical activity.

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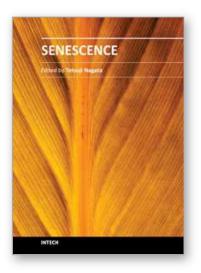
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The book "Senescence" is aimed to describe all the phenomena related to aging and senescence of all forms of life on Earth, i.e. plants, animals and the human beings. The book contains 36 carefully reviewed chapters written by different authors, aiming to describe the aging and senescent changes of living creatures, i.e. plants and animals.

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