



EFFECT OF CLAY THERAPY AND FREE EXERCISE FOR REDUCTION OF ANXIETY IN GERIATRICS- AN EXPERIMENTAL STUDY

Physiotherapy

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ABSTRACT

Geriatric medicine is a specially categorized that focuses on health care of elderly people. It helps in preventing and treating diseases and disabilities in older adults. Nowadays, anxiety, depression and stress are very common in adults and in geriatrics. Anxiety is one type of felling of uneasiness and worry, which is generalized as an overreaction to any situation. Anxiety is closely related to fear which is response to a real or immediate situation. Clay is a very known material known from prehistoric time in forms such as vases, pots and symbolic figure. Clay therapy involves an intense and powerful tactile experience of touching. Clay therapy having evidence of reduction of anxiety and gave beneficial result and free exercise also having evidence of reduction of anxiety. Combination of these two treatment gives remarkable result on reduction of anxiety in geriatric people. **AIM:** The aim of study is to reduce anxiety in old age people. **OBJECTIVE:** The objective of the study is to educate the patient about anxiety and to find out whether clay therapy and free exercise are effective in reduction of anxiety in geriatric. **STUDY DESIGN:** An Experimental Study in highlight **METHODS:** In 6 weeks of intervention; 30 participants with features of anxiety were studied. They will be collected by convenience sampling. Pre and post data is collected and analyzed using SPSS 26.0. **RESULTS:** A significant improvement is seen in anxiety ($p < 0.05$) after the treatment was found. Greater statistical significant improvement was seen in geriatric. **CONCLUSION:** The study concluded that clay therapy and free exercise is effective in reduction of anxiety for geriatric.

KEYWORDS

Geriatrics, Clay Therapy, Free Exercise, Anxiety

1. INTRODUCTION

Geriatrics, or geriatric medicine,^[1] is a specialty that focuses on health care of elderly people.^[2] It aim to promote health by preventing and treating diseases and disabilities in order to adults.^[3] Old age comprises "the later part of life; the period of life after youth and middle age usually with reference to deterioration".^[4] Anxiety is an emotion characterized by an unpleasant state of inner turmoil, often accompanied by nervous behavior such as pacing back and forth, somatic complaints, and rumination.^[5]

Anxiety is closely related to fear, which is a response to a real or perceived immediate threat; anxiety involves the expectation of future threat including dread.^[6] By "clay-work" we mean the process of handling, manipulating, and sculpting clay, and the products of these activities.^[7]

Touch in claywork also requires body movements in endless opportunities for touching and modeling. Thus clay-work makes possible an entire non-verbal language or communication for the creator, through which his or her mental realm, emotional life, and primary object relations can be expressed.^[8] Free exercises are those which are performed by the patient's own muscular efforts without the assistance or resistance of any external force, other than that of gravity.^[9]

2. METHODOLOGY

The participants with anxiety will be identified from Nootan General Hospital and Community Based Rehabilitation (CBR) of Nootan College of Physiotherapy, Visnagar. Then the individuals, who full fill the selection criteria, will be informed about the study and request to sign written consent forms. The patient will be selected by convenient sampling method.

The participants underwent a detailed pre-evaluation. The pre-evaluation included an Geriatric Assessment which obtained information about demographic details, medical history, personal history, psychological history and social history of the subjects.

Anxiety was assessed by Beck Anxiety Inventory (BAI) and Hamilton Anxiety Rating Scale (HARS). The patient were treated with free exercise and clay therapy. The treatment protocol consists of 5 session of clay therapy / week and 5 sessions of free exercise for 6 weeks. Each Participant was evaluated prior to the first session and after the last session.

Table No. 1: Exercise Protocol for Free exercise

WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6
Arm swing	Overhead throw	Transfer one object from one box to another	Elbow flexion and extension	Shoulder shrugging	Elbow flexion and extension
Shoulder shrugging	Elbow flexion and extension	Squeeze the ball	Throwing and catching ball	Throwing and catching ball	Pelvis and trunk rotation
Throwing and catching ball	Transfer one object from one box to another	Arm swing	Shoulder shrugging	Overhead throw	Stationary bicycling
Forearm supination and pronation	Stationary bicycling	Pelvis and trunk rotation	Overhead throw	Arm swing	Leg swinging
Squeeze the ball	Leg swinging	Stationary bicycling	Leg swinging	Squeeze the ball	Transfer one object from one box to another

Table No. 2: Exercise Protocol for Clay Therapy

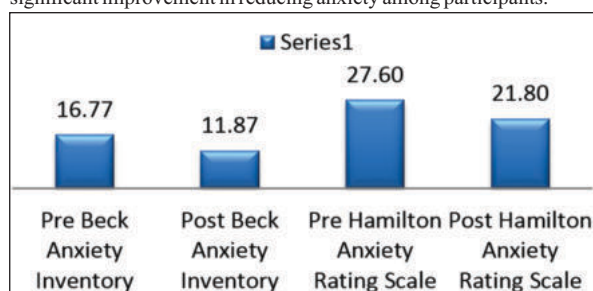
Week 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6
Squeeze the clay	Making impression on clay	Finger extension	Squeeze the clay	Finger scissor	Use mold and clay
Roll the clay	Use mold and clay	Hide your thumb	Tear the clay	Hiding your thumb	Make alphabet out of clay
Tear the clay	Finger scissor	Making small ball out of clay	Make alphabet out of clay	Roll the clay	Making impression on clay



3. Interpretation

Pre- and post-treatment data of the participants in the group were noted. All statistical analysis was done using SPSS 22.0 software for windows. Descriptive analysis was obtained by using mean & standard deviation. The intragroup comparison between group of pre-treatment and post treatment of HARS and BAI was done by paired t-test.

The result found in this study disclosed that after 6 weeks treatment programme, the group received free exercise and clay therapy attained significant improvement in reducing anxiety among participants.



Outcomes	Pre treatment	Post treatment	t-value	p-value
HARS	27.60±3.936	21.80±3.547	14.316	0.00
BAI	16.77±4.281	11.87±3.884	16.292	0.00

4. DISCUSSION

The present study was carried out to find out the effectiveness of clay therapy and free exercise on reduction of anxiety on geriatric population. In this experimental study was conducted on 30 participants with mean age of 64.87 $\pm$ 3.267 (mean $\pm$ SD). The participants were included in only one group who received free exercise and clay therapy for 1 session / day and 5 days /week for 6 weeks. In this study BAI (Beck Anxiety Inventory) and HARS (Hamilton Anxiety Rating Scale) to reduce anxiety were use as outcome measurement. The participants with anxiety were identified from Nootan General Hospital and Community Based Rehabilitation (CBR) of Nootan College of Physiotherapy, Visnagar by pre assessment. The main purpose of the study is to reduce anxiety by free exercise and clay therapy. Anxiety is a feeling of uneasiness and worry, usually generalized and unfocused as an overreaction to a situation that is only subjectively seen as menacing. Clay products are well known in human history since prehistoric times in such forms as vases, pots, and symbolic figures including human figures. Clay-work involves an intense and powerful tactile experience of touching and haptic involvement. By "clay-work" we mean the process of handling, manipulating, and sculpting clay and the products of these activities. Touch in claywork also requires body movements in endless opportunities for touching and modeling. This study is consistent with ParisaRahmania, NaeimehMoheba conducted study on "The effectiveness of clay therapy and narrative therapy on anxiety of pre-school children" and concluded that the clay therapy is effective in pre-school children for reducing anxiety. The participants were given treatment for 6 weeks. Pre and post assessment of participants were taken. After that the outcome measures were compared from pre and post data taken. The outcome shows significant improvement in outcome measure in post treatment as compared to pre treatment.

Though a significant improvement was found after treatment in group showed greater improvement in the BAI and HARS score ($p < 0.05$)

Thus the alternative hypothesis [H_1] is failed to reject.

The above-exposed statement suggests that the free exercise and clay therapy is effective for the improvement for reduction of anxiety symptoms.

5. CONCLUSION

In this current study the group of geriatric showed significant effect on functional outcome of anxiety. Thus the study suggests that the clay therapy and free exercise is beneficial in reducing anxiety in geriatric group.

6. REFERENCES

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