

## Geriatric Physiotherapy (GPT) on Feelings of Loneliness among Elderly – A Pilot Study

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### ABSTRACT

World Confederation of Physiotherapy (WCPT) declared that the theme of World Physiotherapy Day 2018 is Mental Health and Physiotherapy along with movement for health. World Federation for mental health projected world mental health day 2013 as “Mental health and older adults”. Ageing is a natural process, a person who attains 60 or 65 and above is considered as elderly. When the elderly people are admitted in institutions, their relationship with family members and friends comes to an end and it creates relocation trauma. They feel as they are alone. This feeling of loneliness has strong relationship with depression. This sums up, creates limitation in functional activities and leads to the level of suicide. There are so many therapies viz. Cognitive Behavior Therapy, Mindfulness, Laughter therapy, Psychotherapy, Electroconvulsive treatment, Person Centered Therapy, Exercise therapy to reduce the feelings of loneliness. But, there is no gold standard treatment for feelings of loneliness among elderly. An intervention named “Geriatric Physiotherapy (GPT)” was considered and intended to augment both the physical and mental health of the elderly people. Therefore, this pilot study aims to find the effect of Geriatric Physiotherapy (GPT) on mental health and loneliness of institutionalized elderly. Ten elderly people were selected for the study from elderly homes at Mangalore. General Health Questionnaire (GHQ) scale to assess mental health, and De-Jong Gierveld Loneliness scale to assess loneliness were used as assessment tools. Geriatric Physiotherapy (GPT) treatment was given after obtaining pre-test data. After 6 months of treatment, post-test was taken. Statistical analysis was done and it was found that Geriatric Physiotherapy (GPT) has significant effect in reducing feelings of loneliness by improving strength and physical fitness, thereby improving mental health. Hence it may be recommended to use by physiotherapists, provides awareness to clinical psychologists and other health care providers for referral.

**Keywords:** *Geriatric Physiotherapy (GPT), Loneliness, Elderly, WCPT*

The Indian elderly population is second largest in the World. United Nations selected 1999 as the International year of older persons. It is proposed that two billion individuals worldwide will be 60 years old or more in 2050 and it is predicted that 300 million elderly will shape

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19% of the aggregate population. This makes medical issues that prompt negative feelings and mood changes. As the majority of the elderly are living alone or in old age homes they feel their desires are not fulfilled and separated from society which causes extreme loneliness.

Leaving one's home and living without family or friends and staying with new people leads to relocation trauma and those who are suffering from disability are poor in physical health and that brings about depression. It has to be found out either by patient himself and or by health care professionals. The reduction of daily contacts in a community by the institutionalized elderly is the reason behind depression. There is a strong relationship between depression and loneliness. The loneliness may be emotional, which is more of subjective in nature and social loneliness deals with objective too.

As the institutionalized elderly are having mental health issues due to loneliness, a therapy must be needed to overcome and to maintain good mental health. Therefore, Geriatric Physiotherapy (GPT) in mental health plays a vital role in bringing such progress and studies are needed to bring out the effectiveness of Geriatric Physiotherapy (GPT) in mental health among institutionalized elderly.

Pilot study is to ensure the appropriateness of basic features of the design and the proceeded exertion (Clack-Carter 2010). Hence, pilot study was carried out prior to the main study with the following specific objectives.

Objective of the pilot study is to have hands on experience in administering the psychological instrument and to develop mastery over the procedure of scoring and interpretation of each instrument, to estimate the time needed to administer the instruments selected for the study and to ascertain the reliability of the instrument which has been chosen for the study. This study uniquely examines the role of Geriatric Physiotherapy (GPT) in mental health as resulting variable of depression and loneliness among institutionalized elderly.

### ***Rationale for the study***

The rationale for the study depicts the reason for administering Geriatric Physiotherapy (GPT) for loneliness of the elderly as a vital factor for psychological wellness. Most of the people have silent suffering, which leads to a lonely life. Therefore, the research inquiry seeks to investigate the connection between mental health and loneliness among elderly.

Remembering the significance of these factors, in this study an endeavour is made to discover the viability of Geriatric Physiotherapy (GPT) on psychological wellness as coming about factor of believing of loneliness among elderly.

### ***Objectives***

The following are the objectives of the study:

- To find out the effect of Geriatric Physiotherapy (GPT) on feelings of loneliness in elderly.
- To explore the effect of Geriatric Physiotherapy (GPT) on mental health as a resulting variable of feelings of loneliness in elderly.

### ***Hypotheses***

The study was conducted with the following hypotheses:

- Geriatric Physiotherapy (GPT) will influence the feelings of loneliness among institutionalized elderly.
- Geriatric Physiotherapy (GPT) will influence mental health as resulting variable of feelings of loneliness among elderly.

## METHODOLOGY

In this study, survey method was used by the researcher for an effective data collection.

### *Participants*

The sample comprised of 10 elderly persons in the age group of 65-90 years. The subjects of the samples were selected from old aged homes in Mangalore. These elderly persons were contacted directly after taking due permission from the authorities. The questionnaires were administered to them after getting consent letter.

### *Data Collection*

Measurement tools were given to the respondents with required instructions after obtaining informed consent. Confidentiality was assured to the respondents. Respondents were allowed to take required time to respond to all the items in the measuring tool. According to inclusion and exclusion criteria, samples were recruited for physiotherapy intervention. After six months of intervention, post-test was taken to find out the effectiveness of Geriatric Physiotherapy (GPT) on mental health.

### *Statistical Techniques*

Statistical Packages for Social Sciences (SPSS) version 22.0 was used for the statistical analysis. Mean and Standard Deviation were used for continuous variables. For categorical variables frequency and percentage were used. For finding the association Chi-square test and for intervention paired t-test were used. Pearson correlation was obtained to assess relationship between variables.

### *Instruments Used*

The following instruments were used in this study.

- Feelings of loneliness are measured with De Jong GierVeld Loneliness Scale (DJGLS) developed by De Jong GierVeld (2010) based on Weiss (1973) definition of emotional loneliness. The measure has 6 items with 3 statements adopting three point scale values of 0 or 2 viz. Yes, more or less and No depends on statement.
- General Health Questionnaire (GHQ) is used to measure mental health. The total score of instrument is 30.

The reliability and validity of all the measuring tools used in this study were established.

## RESULTS AND DISCUSSION

The study found negative correlation between feelings of loneliness and general mental health. Significant positive correlation was found between Geriatric Physiotherapy (GPT) and general mental health.

*Sample size estimation formula is given below:*

$$n = \frac{2\sigma^2(Z_\beta + Z_\alpha)^2}{\text{difference}^2}$$

$Z_\beta$  = 1.281 at 90% power

$Z_\alpha$  = 1.96 at 95% confidence interval

Difference = Pre mean-Post mean

$\sigma$  = pooled s.d

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**Table 1: Shows the loneliness score using De Jong GierVeld Loneliness Scale before Geriatric Physiotherapy (GPT) intervention and post intervention**

	Mean	No	Std. Deviation
DGLS Pre	4.40	10	1.075
DGLS P0st	3.40	10	.516

n=7

The mean value of 4.40 and SD of 1.075 for the 10 samples were obtained in De Jong GierVeld Loneliness Scale before Geriatric Physiotherapy (GPT) intervention. But in post-test, the value was reduced to a mean value of 3.10 and a SD of 0.516.

**Table 2: Shows General Mental Health using General Health Questionnaire (GHQ) before Geriatric Physiotherapy (GPT) intervention and post intervention**

	Mean	No	Std. Deviation
GHQ Pre	17.00	10	1.919
GHQ Post	20.20	10	1.549

n=5cases

Before Geriatric Physiotherapy (GPT) intervention in pre-test through General Health Questionnaire, we got mean of 17.00 with SD of 1.919. After Geriatric Physiotherapy (GPT) intervention, the mental function has the mean value of 20.20 and SD of 1.549.

Elderly persons have less control over their life due to psychological and physiological changes. When they lost their beloved ones or friends the hope will be questionable. They feel emptiness in life and not have much desire about future. The social support in institutions prevailing amongst all will not be personalized. Feelings of loneliness are very often inhabitant within them. As both the variables have stronger relationship, they should be corrected at early stages itself. De-stigmatization on general mental health should be incorporated in India to remove negative thoughts. Absence of relationship with others was found to be 29.4% and such loneliness should be addressed. This study aims at treatment intervention for feelings of loneliness. The results showed that significant effect has been seen after physiotherapy intervention. Flexibility, strengthening exercises, group therapy, body awareness therapy and personal interviews with relaxation program help them to overcome their problem which improves general mental health.

### CONCLUSION

International Organization of Physical Therapy in Mental Health (IOPTMH) is the sub-group of WCPT which conducts conferences yearly and updating the role of physiotherapy in mental health. This study was conducted to find the effect of Geriatric Physiotherapy (GPT) on general mental health and concluded that there was significant improvement in general mental health of the institutionalized elderly having loneliness. Hence, Geriatric Physiotherapy (GPT) will be having implications on general mental health.

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### ***Conflict of Interest***

The authors carefully declare this paper to bear not a conflict of interests

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