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**PULMONARY LUNG REHABILITATION INTERVENTION IN IMPROVING
QUALITY OF LIFE OF POST TB LUNG DISEASE PATIENTS**

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Background Information

- Pulmonary TB is caused by the bacterium *Mycobacterium tuberculosis* (MTB) that involves the lungs.
- In Malawi, around 60% of TB is found in the Pulmonary.
- Even though TB is curable, the disease itself and its post treatment effects affect the general quality of life.
- This calls for interventions that aims at addressing Post TB treatment Lung related diseases.
- The intervention was implemented by Paradiso TB Patients Trust

Methodology

- Identification of TB survivors was done using the facility TB register.
- Assessment was done for the identification of Post TB lung disease symptoms using the tool which was developed.
- The first phase implementation of the lung rehabilitation program involved 36 post TB patients who were indicative of Post TB Lung disease symptoms.
- Prior to the implementation, health care workers were oriented on the administration of the tool and the whole intervention approach.
- The tool was used to assess four domains of quality of life thus physical, psychology, social and environmental factors.
- The implementation was done in 3 Facilities. Facility selection was done based on the volume of PTB cases. The pilot was implemented using World Health Organization BRIEF (WHOQOL) tool.

Methodology

- The questionnaire has 26 questions and QOL is assessed using four domains; physical, psychological, social and environment.
- Each domain has facets, and all facets are graded accordingly based on the participants' response. Summation of all facet scores gives a total score of each domain. The analysis was done using a syntax for WHO BREF questionnaire, which was developed by the WHO

Intervention

- Participants had two therapy sessions every week at their respective health center, using a group circuit training approach; and they were advised to exercise once at home on their own.
- The intervention comprised of exercise and education therapies; the peers educated and encouraged each other on modifying risk factors and behavior change.
- The trained peer volunteers and HSAs led the exercise therapy sessions.
- On each therapy session, participants had 5 minutes of education and discussion on TB related risk factors and how they can modify the factors, and ensure healthy living post completion of TB treatment, 5 minutes warm up, 30 minutes the actual exercise therapy and 5 minutes for cool down
- The intensity was individualized, while frequency, time and type of exercise was standardized for all
- Prior and after the therapy vitals were taken to minimize risks
- The duration for the whole program was 12 weeks

Results

- The lung rehabilitation program was associated with significant improvement in the Quality of Life with an overall
- Quality of life mean score of 52.9 ± 14.6 at baseline and at end line mean score of 63.8 ± 14.5 , and P value of 0.001.
- There was significant change in all the domains apart from the psychological domain with an alpha level set to 0.005.
- On Physical domain baseline mean score was 44.4 ± 20.6 at end line the mean score was 58.9 ± 17.5 with a P value of 0.001.
- Psychological domain the mean score was 63.7 ± 16.8 at baseline and at end line 69 ± 14 with a P value of 0.177, Social domain the mean score at baseline was 57.4 ± 26.2 and the end line the mean score was 70.2 ± 22.9 with P value of 0.012.
- Environmental domain the mean baseline score was 5.6 ± 15.2 and at end line mean score of 57 ± 18.5 with a P value of 0.001.

Conclusion

- Overall, the results suggest that the intervention is very effective and beneficial to the Participants in improving general quality of life.
- The recommendation is that the program should consider incorporating mental-health care for the participants by either offering special mental-health training to the healthcare workers working on this lung rehabilitation program, or engaging specialists such as social welfare workers, readily available in our set-up to work on promoting the mental well-being of the participants and finally the program to be scaled up national wide.