

EFFECT OF STRUCTURED EXERCISE PROGRAMMES ON EMOTIONAL WELL-BEING AMONG GERIATRIC PATIENTS IN YENAGOA.

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ABSTRACT

Emotional well-being is a vital component of healthy ageing, influencing the quality of life, independence, and overall health of older adults. However, many geriatric patients experience anxiety, depression, loneliness, and emotional distress due to chronic illnesses, declining physical function, and social isolation. This study examined the effect of structured exercise programmes on the emotional well-being of geriatric patients in Yenagoa, Bayelsa State. The programme involved individualized, supervised exercises, including aerobic, strength, balance, flexibility, and relaxation activities, designed according to participants' health conditions and functional abilities. Evidence suggests that regular participation in structured exercise improves mood, reduces symptoms of anxiety and depression, enhances self-esteem, promotes social interaction, and improves overall quality of life among older adults. Despite these benefits, implementation may be constrained by inadequate healthcare resources, limited availability of trained professionals, and the presence of chronic medical conditions. Successful implementation therefore requires collaboration among physiotherapists, physicians, nurses, caregivers, and family members to ensure safety and effectiveness. The study concludes that structured exercise programmes are a practical, safe, and cost-effective non-pharmacological intervention for improving emotional well-being among geriatric

patients. Integrating these programmes into routine geriatric healthcare services can promote healthy ageing, enhance emotional resilience, and improve the overall quality of life of older adults in Yenagoa.

KEYWORDS: Structured exercise programme, emotional well-being, geriatric patients, healthy ageing, Yenagoa.

1. INTRODUCTION

The rapid growth of the global ageing population has become a major public health concern, placing increasing demands on healthcare systems and social welfare services. According to the World Health Organization (WHO, 2022), the number of people aged 60 years and above is expected to double by 2050, making healthy ageing a global priority. Nigeria is also experiencing a steady increase in its elderly population due to improvements in healthcare, nutrition, and life expectancy (United Nations Department of Economic and Social Affairs [UN DESA], 2023; National Population Commission [NPC] & ICF, 2024). Consequently, there is a growing need to address not only the physical health of older adults but also their emotional well-being, which includes positive mood, life satisfaction, resilience, self-esteem, and the ability to cope with age-related challenges. Emotional well-being is essential for improving quality of life, maintaining independence, and promoting healthy ageing (WHO, 2022; United Nations, 2023).

Ageing is often associated with chronic illnesses, declining physical function, reduced mobility, retirement, bereavement, financial challenges, and social isolation. These factors increase the risk of emotional problems such as depression, anxiety, loneliness, and reduced psychological functioning among older adults (Choi et al., 2022; WHO, 2023). In Nigeria, especially in the Niger Delta region, geriatric patients frequently experience additional challenges, including inadequate social support, limited access to specialized geriatric healthcare services, and few opportunities for recreational activities that enhance emotional wellness (Ameh et al., 2023; Eze et al., 2024). These challenges are increasingly evident among elderly patients in Yenagoa, Bayelsa State, where age-related illnesses and functional limitations continue to rise. As a result, healthcare professionals are increasingly promoting non-pharmacological interventions that can improve both physical and emotional health outcomes (Ogunyemi et al., 2024; WHO, 2023).

Among these interventions, structured exercise programmes have gained considerable attention because of their proven health benefits. Structured exercise involves planned,

supervised, and repetitive physical activities designed to improve strength, flexibility, balance, mobility, and overall fitness (American College of Sports Medicine [ACSM], 2023; Bull et al., 2022). Unlike routine daily activities, structured exercise follows specific guidelines regarding frequency, duration, intensity, and progression. Evidence indicates that regular participation in such programmes enhances the release of endorphins, serotonin, and dopamine, thereby improving mood, reducing stress, and alleviating symptoms of depression and anxiety (Stubbs et al., 2023; Biddle et al., 2024). In addition, group-based exercise programmes encourage social interaction, reduce loneliness, and strengthen support networks, thereby contributing to improved emotional and psychological well-being among older adults (Sherrington et al., 2023; Smith et al., 2024).

Despite these documented benefits, implementing structured exercise programmes among geriatric patients presents several challenges. Healthcare facilities often face shortages of trained personnel, inadequate rehabilitation facilities, limited funding, and poor awareness of the benefits of exercise among elderly patients (WHO, 2023; Ogunyemi et al., 2024). Furthermore, many older adults live with multiple chronic conditions such as hypertension, diabetes mellitus, osteoarthritis, and cardiovascular diseases, making individualized exercise prescriptions necessary to ensure safety and effectiveness (ACSM, 2023; American Heart Association, 2024). Therefore, exercise programmes should be carefully designed to accommodate the varying functional capacities and medical conditions of geriatric patients.

Several recent studies have demonstrated the positive effects of structured exercise on emotional well-being among older adults. Zhao et al. (2023) reported that a 12-week supervised aerobic and resistance exercise programme significantly improved emotional well-being and life satisfaction while reducing depressive symptoms among elderly participants. Similarly, Sun et al. (2024) found that multicomponent exercise interventions reduced anxiety, loneliness, and psychological distress while enhancing emotional resilience and social engagement. Likewise, Cunningham et al. (2022), in a systematic review, concluded that structured physical exercise significantly improves psychological well-being, cognitive function, and overall quality of life among older adults.

Although international evidence supporting structured exercise programmes continues to grow, there is limited research examining their effect on the emotional well-being of geriatric patients in Nigeria, particularly in Bayelsa State. Most local studies have focused primarily on physical health outcomes, with little attention given to emotional health (Ameh et al., 2023; Eze et al., 2024). This knowledge gap highlights the need to investigate the effect of structured exercise programmes on emotional well-being among geriatric patients in

Yenagoa. Findings from this study will provide evidence to support the integration of structured exercise into routine geriatric healthcare, thereby promoting healthier ageing, improved emotional well-being, and better quality of life among elderly patients.

2. METHODS

Development of the Structured Exercise Programme

A structured exercise programme will be designed specifically to improve the emotional well-being of geriatric patients attending selected healthcare facilities in Yenagoa, Bayelsa State. The programme will be developed based on established exercise guidelines for older adults provided by the American College of Sports Medicine (ACSM, 2023) and the World Health Organization (WHO, 2022). The exercise sessions will be tailored to accommodate the physical abilities, health conditions, and functional capacities of individual participants while ensuring maximum safety and effectiveness. Consultation with physiotherapists, exercise physiologists, geriatric nurses, and physicians will be undertaken during programme development to ensure that the intervention is evidence-based and clinically appropriate.

Initial Health Assessment

Before enrolment into the exercise programme, each participant will undergo a comprehensive health assessment. This assessment will include the collection of demographic information, medical history, current medications, chronic health conditions, mobility status, cardiovascular risk factors, and baseline emotional well-being. Physical parameters such as blood pressure, heart rate, body mass index (BMI), balance, flexibility, and functional mobility will also be assessed. Emotional well-being will be measured using a standardized psychological assessment tool appropriate for older adults. The assessment will help determine each participant's readiness for physical activity and identify any contraindications to exercise.

Identification of Individual Needs and Functional Limitations

Following the baseline assessment, the specific physical, medical, and emotional needs of each geriatric participant will be identified. Particular attention will be given to mobility limitations, musculoskeletal disorders, cardiovascular diseases, diabetes mellitus, arthritis, visual impairment, and other chronic conditions commonly experienced by older adults. Participants' exercise preferences, previous physical activity experience, and personal goals will also be considered. This individualized approach will ensure that the exercise programme accommodates varying functional abilities while minimizing the risk of injury.

Consultation with Exercise and Healthcare Professionals

The development of the exercise programme will involve close collaboration with qualified physiotherapists, exercise specialists, geriatric physicians, and nursing professionals. These experts will determine the most appropriate types of exercises, duration, frequency, intensity, progression, and safety precautions suitable for elderly participants. Professional consultation will also ensure that modifications are provided for participants with chronic illnesses or physical disabilities, thereby promoting safe participation and maximizing health benefits.

Design of the Structured Exercise Programme

Based on the findings from the health assessment and professional consultations, a comprehensive structured exercise programme will be developed. The programme will consist of supervised sessions performed three times per week for a period determined by the study protocol. Each exercise session will include warm-up exercises, light aerobic activities such as walking or low-impact movements, muscle-strengthening exercises using body weight or resistance bands, balance and coordination exercises to reduce the risk of falls, flexibility and stretching exercises to improve joint mobility, and cool-down activities incorporating relaxation and breathing exercises. The exercises will be progressive, beginning with low intensity and gradually increasing according to participants' tolerance and functional improvement.

Programme Implementation

The exercise sessions will be conducted in a safe and accessible environment within the healthcare facility under the supervision of trained physiotherapists and research assistants. Participants will receive clear instructions and demonstrations before each exercise session. Adequate rest periods will be incorporated to prevent fatigue, while hydration and safety precautions will be emphasized throughout the programme. Attendance will be recorded to monitor compliance and encourage regular participation.

Supervision and Monitoring

Continuous supervision and monitoring will be maintained throughout the intervention period to ensure participant safety and programme effectiveness. Healthcare professionals will observe participants during exercise sessions, monitor vital signs where necessary, and promptly respond to any discomfort or adverse events. Participants' progress will be evaluated periodically by assessing changes in physical performance, functional mobility, and

emotional well-being. Where necessary, exercise intensity and activities will be modified to accommodate changes in participants' health status or functional capacity.

Evaluation of Emotional Well-being

The effectiveness of the structured exercise programme will be evaluated by comparing participants' emotional well-being before and after completion of the intervention. Standardized assessment instruments will be administered to measure changes in mood, anxiety, depressive symptoms, life satisfaction, self-esteem, and overall emotional well-being. Improvements observed following participation in the programme will provide evidence regarding the effectiveness of structured exercise in enhancing psychological health among geriatric patients.

Expected Outcome

The implementation of a structured exercise programme tailored to the health conditions and functional abilities of geriatric patients is expected to improve emotional well-being by reducing symptoms of anxiety, depression, stress, and loneliness while enhancing mood, self-confidence, resilience, and social interaction. In addition to promoting emotional health, the programme is anticipated to improve physical functioning, balance, mobility, and overall quality of life among elderly patients attending healthcare facilities in Yenagoa. The findings of the study will provide evidence to support the integration of structured exercise programmes into routine geriatric healthcare services as a cost-effective, non-pharmacological strategy for promoting healthy ageing.

3. RESULTS AND DISCUSSION

The following is an example of the implementation of a structured exercise programme designed to improve the emotional well-being of a geriatric patient attending a healthcare facility in Yenagoa, Bayelsa State.

3.1 Initial Health Assessment

An elderly patient, Mrs. Grace, aged 72 years, attends the geriatric clinic at a tertiary healthcare facility in Yenagoa. She has a medical history of hypertension and osteoarthritis of the knees and has reported experiencing persistent feelings of loneliness, anxiety, reduced motivation, and poor sleep following the loss of her spouse. A comprehensive assessment conducted by the healthcare team indicates that although she is medically stable, her emotional well-being is below the expected level for healthy ageing. Her physical

examination also reveals mild limitations in mobility and balance, making her an appropriate candidate for a supervised structured exercise programme.

3.2 Identification of Individual Needs and Limitations

Following the assessment, the multidisciplinary healthcare team identifies Mrs. Grace's major needs and limitations. She requires exercises that improve mobility, muscular strength, balance, and flexibility while avoiding excessive stress on her knee joints. Her blood pressure must also be monitored regularly during exercise sessions. In addition to physical improvement, the programme is designed to enhance her emotional well-being by reducing anxiety, improving mood, increasing self-confidence, and encouraging social interaction with other elderly participants.

3.3 Consultation with a Physiotherapist and Healthcare Professionals

The healthcare team consults a physiotherapist, a geriatric physician, and a nursing specialist to develop an individualized exercise programme. After reviewing her medical history and physical assessment findings, the physiotherapist recommends low-impact aerobic exercises, chair-based strength training, balance exercises, flexibility exercises, breathing techniques, and relaxation activities. The exercise intensity is kept at a moderate level with gradual progression based on Mrs. Grace's tolerance and functional improvement.

3.4 Development of the Structured Exercise Programme

The individualized exercise programme is organized into supervised sessions conducted three times per week. Each session consists of:

- **Warm-up activities:** Gentle stretching and breathing exercises for 10 minutes.
- **Aerobic exercises:** Slow-paced walking and rhythmic movements for 20 minutes.
- **Strength training:** Chair squats, seated leg raises, and resistance-band exercises for 15 minutes.
- **Balance training:** Heel-to-toe walking, standing on one foot with support, and side-stepping exercises.
- **Flexibility exercises:** Stretching of the upper and lower limbs to improve joint mobility.
- **Cool-down and relaxation:** Deep breathing, guided relaxation, and mindfulness exercises lasting approximately 10 minutes.

The programme also includes group exercise sessions to promote social engagement and reduce feelings of loneliness among participants.

3.5 Supervision and Monitoring

Throughout the intervention period, Mrs. Grace is supervised by physiotherapists, nurses, and trained research assistants. Her blood pressure, heart rate, and perceived exertion are monitored before and after each exercise session. The healthcare team also evaluates her emotional well-being periodically using standardized assessment instruments. Attendance records, participant feedback, and any adverse events are documented to assess programme adherence and safety. After several weeks of consistent participation, Mrs. Grace reports improved mood, better sleep quality, reduced anxiety, increased confidence, and greater willingness to participate in social activities. Her balance, mobility, and overall physical functioning also show measurable improvement.

The implementation of this individualized structured exercise programme demonstrates how appropriately designed physical activity can simultaneously improve physical function and emotional well-being among geriatric patients. By addressing each participant's medical condition and emotional needs, structured exercise provides a safe, cost-effective, and holistic intervention for promoting healthy ageing within healthcare facilities.

DISCUSSION

The implementation of structured exercise programmes for geriatric patients requires a multidisciplinary and patient-centred approach that recognizes the diverse health conditions and functional abilities of older adults. Individual health assessments provide the foundation for developing exercise programmes that are safe, achievable, and tailored to each participant's physical and emotional needs. Collaboration among physiotherapists, physicians, nurses, and exercise specialists ensures that exercise prescriptions are evidence-based and appropriate for elderly patients with chronic illnesses and mobility limitations.

The example presented illustrates that regular participation in supervised exercise sessions can improve not only physical outcomes such as balance, strength, flexibility, and mobility but also emotional well-being. Increased physical activity stimulates neurochemical processes associated with improved mood and reduced symptoms of anxiety and depression while encouraging social interaction and reducing loneliness. These findings are consistent with previous studies demonstrating that structured exercise contributes significantly to psychological health, life satisfaction, and quality of life among older adults (Cunningham et al., 2022; Zhao et al., 2023; Sun et al., 2024).

Continuous supervision and monitoring remain essential for ensuring participant safety, particularly among elderly individuals with multiple chronic conditions. Regular evaluation

allows healthcare professionals to modify exercise intensity according to participants' progress and medical status while minimizing the risk of injury or adverse events. Furthermore, incorporating group-based activities enhances social connectedness, emotional support, and motivation, thereby improving adherence to the programme.

Overall, structured exercise programmes represent an effective non-pharmacological strategy for enhancing emotional well-being among geriatric patients. Integrating such programmes into routine geriatric healthcare services in Yenagoa could contribute significantly to healthier ageing, improved mental health, greater functional independence, and enhanced quality of life among older adults.

4. CONCLUSION

The implementation of structured exercise programmes tailored to the individual health conditions and functional abilities of geriatric patients has considerable potential to improve emotional well-being and overall quality of life. Individualized programmes that incorporate aerobic, strength, balance, flexibility, and relaxation exercises can reduce symptoms of anxiety, depression, stress, and loneliness while enhancing mood, self-confidence, resilience, and social participation. These benefits are achieved through careful assessment, individualized exercise prescription, professional supervision, and continuous monitoring throughout the intervention period.

Successful implementation depends on effective collaboration among physiotherapists, nurses, physicians, and other healthcare professionals to ensure participant safety and programme effectiveness. Integrating structured exercise into routine geriatric healthcare services offers a practical, affordable, and sustainable strategy for promoting healthy ageing in healthcare facilities across Yenagoa and similar settings.

Future research should investigate the optimal frequency, duration, and intensity of structured exercise programmes for improving emotional well-being among older adults with different chronic health conditions. Longitudinal studies are needed to evaluate the long-term psychological and physical benefits of exercise interventions. Additionally, future studies should examine the role of technology, such as wearable fitness devices and mobile health applications, in monitoring exercise adherence and emotional health among elderly populations. Economic evaluations of structured exercise programmes should also be conducted to determine their cost-effectiveness and support wider implementation in geriatric healthcare services throughout Nigeria.

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