

DEVELOPMENT OF MASSAGE THERAPY AND EXERCISE THERAPY MODELS TO ALLEVIATE FATIGUE AND STRESS

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ABSTRACT

The purpose of this study is to develop a suitable and effective massage therapy and exercise therapy model to reduce fatigue and stress in final semester students. This research uses a Research and Development design with the 4D model (Define, Design, Develop, Dissemination). In the Define phase, field surveys and literature reviews are conducted to analyze the needs and recommend the types of massage therapy and exercise therapy to reduce fatigue and stress. The results of this analysis are used as the basis for designing the model to be developed.

In the Design phase, the focus is on light to moderate-intensity aerobic activities, breathing techniques, body relaxation, and self-massage. In the Develop phase, validation tests are conducted by experts on the design of the model. Feasibility tests are conducted on a small scale ($n=5$) and a large scale ($n=8$), as well as an effectiveness test. Validation and feasibility tests use questionnaires and observation guides to ensure that the Massage Therapy and Exercise Therapy Model design is appropriate, safe, and comfortable to implement. The effectiveness test is conducted to ensure that the model provides benefits in reducing fatigue and stress in final semester students. The effectiveness test uses a paired t-test with subjects selected based on criteria (purposive sampling), with a total of 50 subjects, consisting of 25 for the fatigue variable and 25 for the stress variable.

Fatigue is measured using the Multidimensional Fatigue Inventory (MFI) questionnaire, and the Perceived Stress Scale (PSS) questionnaire is used to measure stress levels. The results of the model development are then published and disseminated to the public in the Dissemination phase.

The research results show expert validation rates of 0.75 for content aspects, 0.79 for procedure aspects, and 0.76 for other aspects. Material feasibility reaches 81%, content feasibility 84%, and language feasibility 83%. The paired t-test results show that the massage therapy and exercise therapy model significantly reduces fatigue and stress ($p < 0.05$). Therefore, the developed model is suitable and effective for reducing fatigue and stress in final semester students.

The developed massage therapy and exercise therapy model consists of walking with breathing techniques for the first and third 100-meter segments, running for the second and fourth 100-meter segments for about 20 minutes, and self-massage on the calf, upper front thigh, lower and upper arms, shoulders, neck, and forehead for about 20 minutes. The total time required for this method is approximately 40 minutes.

Kata Kunci: *exercise therapy, massage therapy, fatigue, stress.*