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INNOVATION OF A MULTI-DIMENSIONAL TRAINING PROGRAM BASED ON SMARTWATCH TO IMPROVE HOLISTIC FITNESS

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This study aims to develop a Multi-Dimensional Training Program based on Smartwatch (PLMDS) to enhance holistic fitness—physical, mental, and emotional. With sedentary lifestyles on the rise and non-communicable diseases becoming more common, smartwatches offer strategic support for fitness through real-time data and instant feedback. This research addresses current gaps by designing a personalized training application that integrates gamification, interactive guidance, progress tracking, and online community support.

The application follows the ADDIE model: Analysis, Design, Development, Implementation, and Evaluation. The analysis and design phases are complete, and the project is now in development. In the analysis stage, user needs were identified, revealing key barriers like limited time, lack of motivation, and poor access to quality training. These insights guided the intervention design and program scope.

In the design stage, the training framework was structured: cardio and strength exercises for physical health, guided meditation for mental well-being, and mood tracking for emotional support. An intuitive smartwatch interface and evaluation indicators were also created based on physiological and psychological metrics.

Now in development, the program is being integrated into a smartwatch-compatible application that allows users to monitor heart rate, exercise duration, stress levels, and sleep patterns in real time. Initial trials are ongoing with 30 smartwatch users in Medan City, North Sumatra, using on-site sampling. The expected result is a technically feasible, user-friendly PLMDS application that supports sustainable holistic fitness improvement for smartwatch users.

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