**PROGRAM STUDI PROFESI NERS FAKULTAS KEPERAWATAN**
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**Perancangan Aplikasi Berbasis *Website* "Riri's Pranayama *Breathing Exercise*" Untuk Membantu Mengurangi *Dispnea* Pada Pasien PPOK**

**V + 46 Halaman + 8 Tabel + 17 Lampiran**

## ABSTRAK

Pasien PPOK dapat melakukan latihan pernapasan seperti latihan napas pranayama untuk membantu mengurangi dispnea. Aplikasi Website" Riri's Pranayama *Breathing Exercise*" akan membantu pasien PPOK untuk melakukan latihan pernafasan secara mandiri melalui aplikasi *website*. Aplikasi *website* Riri's Pranayama *Breathing Exercise* dilengkapi dengan paduan latihan pernapasan. Tujuan penelitian untuk merancang aplikasi *website* untuk membantu mengurangi Dispnea pada pasien PPOK. Desain penelitian menggunakan *Research and Development* (R&D) dan pendekatan model ADDIE (*Analysis, Design, Development, Implementation, Evaluation*), menggunakan uji validitas 2 pakar (pakar materi dan aplikasi) melalui kuesioner penilaian dan uji *interrater realibility*, dan menggunakan uji validitas dengan 5 reponden menggunakan kuesioner penilaian aplikasi. Hasil perhitungan validasi model dengan persentase rata-rata (Kesesuaian isi, dan Kelayakan program) dengan nilai 92% atau sangat layak. Hasil uji *interrater reability* antara pakar 1 dan 2, nilai koefisien Kappa = 1,00 > 0,80 berarti kesepakatan sangat sempurna dan p *Value* = 0,014 < α = 0,05 tidak ada perbedaan antara pakar 1 dan pakar 2 pengembangan aplikasi. Hasil dari perhitungan model aplikasi skala terbatas didapatkan rata-rata nilai dari responden dengan nilai 88% atau sangat layak. Validasi model aplikasi pada semua dimensi menunjukkan bahwa rata-rata presentase semua komponen yaitu 88% yang artinya bahwa komponen model aplikasi menurut analisis kusioner yang dilakukan oleh responden pada masing-masing dimensi menyatakan kategori "Sangat layak". Kesimpulan dari penelitian valid dan *realible* digunakan. Pengembangan lanjutan aplikasi Riri's Pranayama yang masih berbasis *website* ke versi android atau ios sehingga dengan mudah diakses oleh semua pasien PPOK dan akan menambahkan lebih dari satu jenis latihan pernapasan.

Kata Kunci : PPOK; Riri's Pranayama; *Breathing Exercise*

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**Designing A Website-Based Application "Riri's Pranayama Breathing Exercise" To Reduce Dyspnea In COPD Patiens**

**Vi + 46 Pages + 8 Tables + 17 Appendixes**

## ABSTRACT

*Patients with COPD can perform breathing exercises, such as pranayama breathing exercises, to help reduce dyspnea. The website application "Riri's Pranayama Breathing Exercise" will assist COPD patients in performing breathing exercises independently through the website. This application is equipped with a guide to pranayama breathing exercises. The purpose of this research is to design a website application to help reduce dyspnea in COPD patients. The research design uses the Research and Development (R&D) method with the ADDIE model approach (Analysis, Design, Development, Implementation, Evaluation). The validity test was conducted by 2 experts (content and application experts) using a questionnaire for assessment, and an interrater reliability test was performed. Additionally, a validity test was conducted with 5 respondents using an application assessment questionnaire. The results of the model validation calculation showed an average percentage (Content relevance and Program feasibility) of 92%, indicating that the application is very feasible. The interrater reliability test between Expert 1 and Expert 2 yielded a Kappa coefficient of 1.00 > 0.80, meaning the agreement was very perfect, with a p-value of 0.014 < α = 0.05, indicating no difference between Expert 1 and Expert 2 in the application development. The results from the limited-scale model application calculation showed an average score of 88%, or very feasible. The validation of the application model across all dimensions showed that the average percentage of all components was 88%, meaning that the components of the application model, according to the questionnaire analysis conducted by the respondents on each dimension, were categorized as "Very Feasible." The conclusion of the study is that the application is valid and reliable for use. The next development of the Riri's Pranayama application, initially based on a website, will move to an Android or iOS version for easier access by all COPD patients and will include additional types of breathing exercises.*

*Keywords : COPD; Riri's Pranayama; Breathing Exercise*