

DISERTASI

**PENGEMBANGAN MODEL LAYANAN CEGAH STROKE “ERDANELA”
DI PANTI JOMPO PROVINSI SUMATERA BARAT INDONESIA
MELALUI PEMBERDAYAAN *CAREGIVER* LANSIA
MENGUNAKAN APLIKASI ANDROID**



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ABSTRAK

Cegah stroke pada lansia (lanjut usia) yang berisiko tinggi di panti jompo perlu dilakukan. Stroke salah satu penyakit tidak menular penyebab kematian dan penyebab kecacatan nomor satu di Indonesia. Penyakit terbanyak pada lansia Indonesia adalah hipertensi yang merupakan salah satu faktor risiko penyumbang stroke terbesar. Untuk pengendalian stroke di Indonesia, pemerintah menyediakan Layanan Pra-Stroke yang tersedia di Puskesmas Pandu PTM, Klinik Kesehatan, dan Posbindu PTM yang dilayani oleh dokter umum, perawat dan kader kesehatan. Tantangannya adalah tidak ada akses lansia ke layanan cegah stroke yang tersedia. **Tujuan** penelitian untuk mengembangkan layanan cegah stroke model ERDANELA di panti jompo Provinsi Sumatera Barat melalui pemberdayaan *caregiver* menjadi tenaga pelaksana layanan yang mampu memeriksa faktor-faktor risiko stroke dan mengidentifikasi tingkat risiko stroke lansia menggunakan aplikasi android. Penelitian adalah penelitian *Research & Development* dengan *mixed method* dilakukan dalam 4 tahap. Tahap I *Analysis dan Design Model*, melakukan analisis kualitatif diikuti analisis kuantitatif pada lansia dan *caregiver*. Kemudian membuat desain model pengembangan layanan cegah stroke yang analog dengan model Posbindu PTM. Tahap II *Development*, mengembangkan dan merealisasikan desain, untuk menghasilkan profil layanan, modul pemberdayaan, KIT-bag tempat instrumen pemeriksaan faktor risiko, dan aplikasi android dalam *smartphone*. Tahap III *Implementation*, melaksanakan pemberdayaan (pelatihan) *caregiver* selama 3 hari di setiap panti jompo dan melakukan analisis kuasi eksperimental. Tahap IV *Evaluation*. **Hasil:** Lansia panti jompo Provinsi Sumatera Barat membutuhkan layanan cegah stroke (studi kualitatif). Mayoritas lansia (n=190 orang) berisiko tinggi stroke 55,3% (studi kuantitatif). Pengetahuan, sikap, keterampilan dan perilaku *caregiver* tentang layanan cegah stroke kurang (studi kualitatif). Mayoritas *caregiver* (n=52 orang) berpendidikan sekolah menengah (SMP & SMA) 48,1%, dan belum pernah mendapat pelatihan selama bekerja di panti 73,1%. Hanya pengetahuan yang berpengaruh secara partial pada perilaku *caregiver* dengan $t\text{-hitung } 2,903 > t\text{-tabel } 2,010$ dan $\text{sig. } 0,006 < 0,05$ (studi kuantitatif). Telah dihasilkan sebuah desain pengembangan model layanan cegah stroke ERDANELA. Pengembangan desain menghasilkan produk: Profil Layanan buku modul, KIT-bag, dan aplikasi yang dapat didownload di *google playstore smartphone* android dengan *keywords* ‘Erdanela Cegah Stroke’. Pemberdayaan dilaksanakan menggunakan teori *Procedural Skill Learning* dan *Psychomotor Learning* yang dimodifikasi (novelty). Pemberdayaan telah berhasil meningkatkan pengetahuan, sikap, keterampilan dan perilaku *caregiver* dengan $\text{sig. Wilcoxon } 0,000 < 0,05$. Efektivitas pemberdayaan sedang dengan *mean N-Gain* 0,5. Evaluasi model Kirkpatrick dilakukan untuk model layanan, untuk lansia, untuk *caregiver*, untuk panti jompo. **Kesimpulan:** Telah berhasil dikembangkan sebuah layanan cegah stroke model ERDANELA (baru) di panti jompo provinsi Sumatera Barat melalui pemberdayaan *caregiver* menjadi tenaga pelaksana layanan terlatih, yang mampu melakukan pemeriksaan faktor-faktor risiko dan identifikasi tingkat risiko stroke lansia menggunakan aplikasi android.

Kata Kunci: layanan cegah stroke model ERDANELA, aplikasi android, *caregiver* lansia, pemberdayaan, panti jompo

**DEVELOPMENT OF
'ERDANELA'-STROKE-PREVENTION-SERVICE-MODEL
IN NURSING-HOME WEST SUMATERA PROVINCE, INDONESIA
THROUGH EMPOWERMENT OF ELDERLY CAREGIVER
USING ANDROID APPLICATION**

ABSTRACT

It is necessary to do the stroke prevention in elderly (aged 60 years up) who have high risk in nursing homes. Stroke is one of the non-communicable disease that causes death and disability number one in Indonesia. The most common disease in Indonesian elderly is hypertension which is one of the biggest risk factors contributing to stroke. For controlling of stroke in Indonesia, the government provides Pre-Stroke Services which are available at Puskesmas Pandu PTM, Health Clinics, and Posbindu PTM which are served by general practitioners, nurses and health cadres. The challenge is that there is no elderly access to available stroke prevention services. The research objective was to develop the ERDANELA model of stroke-prevention-services in nursing-homes in West Sumatra Province through empowering caregivers to become the service-implementing-staff. This research is a Research & Development (R&D) research with a mixed method carried out in 4 phases. Phase I Analysis and Design Model, namely conducting qualitative analysis followed by quantitative analysis on the elderly and caregivers, and then designing model of health service (stroke-prevention-service) that is analogous with the Posbindu PTM model. Phase II Development, to develop and realize designs, to produce profile of stroke-prevention-service, module of empowerment, KIT-bags for risk factor examination instruments, and android application in smartphone. Phase III Implementation, doing empowerment to caregiver with the training method for 3 days in each nursing-home and conducting a quasi-experimental analysis. Phase IV Evaluation. Results: Elderly nursing-homes in West Sumatra Province need stroke prevention services (qualitative study). The majority of the elderly (n = 190 elderly) are at high risk 55.3% (quantitative study). Knowledge, attitudes, skills and behavior of caregivers regarding stroke prevention services is lacking (qualitative study). The majority of caregivers (n = 52) have middle school education (junior high school & senior high school) 48.1%, and 73.1% have never received training while working in nursing-homes. Only knowledge has a partial effect on caregiver behavior with t-count $2.903 > t\text{-table } 2.010$ with $\text{sig. } 0.006 < 0.05$ (quantitative study). A design of development the ERDANELA model of stroke-prevention-service was produced which is analogous with the development of Posbindu PTM. Then this design was developed, and have been resulted products as follow: 1) Profile of ERDANELA Model Stroke-Prevention-Service, 2) module's book 'Guidelines for Empowering Nursing-home-Elderly-Caregiver for ERDANELA Model Stroke-Prevention-Services, 3) KIT-bags, and 4) An application in android smartphone that can be downloaded on google playstore with the keywords 'Erdanela Cegah Stroke'. The materials provided in this empowerment process are as follows: This empowerment also using Procedural Skill Learning and Psychomotor Learning theory. With using materials and theory above, this empowerment has succeeded in increasing the knowledge, attitudes, skills and behavior of caregivers with sig. Wilcoxon $0.000 < 0.05$, and effectiveness of empowerment is moderat (mean N-Gain 0.5). Evaluation for the service model: have been detected a new stroke prevention service model in nursing homes, for the elderly: have been detected a decrease of the percentage of high-risk elderly, for caregivers: have been detected the availability of trained caregivers in nursing-homes, for nursing-homes: have been detected increased employee performance and service quality for the elderly in nursing-home. Conclusion: The ERDANELA model stroke-prevention-service (new) has been

successfully developed in every nursing-home in West Sumatera Province with trained caregivers as service-implementing-staff. The services provided by caregivers to the elderly in nursing-homes are examining risk factors and identifying the level of stroke risk using application in android smartphone.

Keywords: the ERDANELA model stroke-prevention-service, android application, elderly caregiver, empowerment, nursing-home

