

### Abstrak

**Latar Belakang:** Evakuasi medis udara merupakan serangkaian peristiwa pemindahan pasien dari tempat satu ke tempat lain menggunakan sarana angkutan udara dan personel pendukung berkualifikasi dokter penerbangan dan perawat udara. Perawat dengan kualifikasi keperawatan penerbangan sangat dibutuhkan dalam melakukan evakuasi medis udara agar mampu memberikan asuhan keperawatan selama di penerbangan dengan adanya segala keterbatasan meliputi keterbatasan ruang gerak, keterbatasan penerangan, sarana prasarana dan perubahan lingkungan penerbangan, sementara pelatihan perawat penerbangan dasar sampai saat ini belum ada di Indonesia. Penelitian ini bertujuan untuk menyusun suatu program pelatihan perawat penerbangan dasar dengan tujuan agar perawat mampu melakukan evakuasi medis udara non militer.

**Metode Penelitian:** penelitian ini merupakan penelitian *mixed-method* dengan desain *sequential exploratory* yang dilakukan selama Maret-Desember 2023. Tahap satu diawali dengan mewawancarai perawat dan penyedia layanan evakuasi medis udara tentang pengalaman dan persepsi dalam melakukan evakuasi medis udara. Tahap kedua: penyusunan kurikulum, modul dan instrumen (pengetahuan, sikap serta lembar observasi keterampilan), melakukan uji validitas kurikulum dan modul oleh 6 *expert* serta uji validitas dan reliabilitas instrumen untuk evaluasi program pelatihan pada 90 perawat. Tahap ketiga: penelitian *pre-experimental* menggunakan *one group pre-test post-test* untuk melihat pengaruh intervensi pelatihan yang dilakukan. Pelatihan dilakukan selama 4 hari pada 30 perawat. Analisis data bivariat dengan menggunakan *Paired t-test* dan multivariat menggunakan *regresi linear* berganda.

**Hasil Penelitian:** Tahap 1 kualitatif mendapati 7 tema yaitu 1) pengalaman evakuasi medis udara, 2) tantangan yang dihadapi perawat dan penyedia layanan evakuasi medis udara, 3) pengetahuan yang harus dikuasai perawat dalam melakukan evakuasi medis udara, 4) upaya untuk meningkatkan pengetahuan dan keterampilan, 5) *Leveling* pelatihan perawat penerbangan, 6) metode pelatihan perawat penerbangan, dan 7) metode evaluasi pelatihan perawat penerbangan. Pada tahap kedua penelitian tersusun modul perawat penerbangan dasar yang terdiri dari 5 modul, pengembangan instrumen pengetahuan, sikap serta lembar observasi keterampilan, serta diujikannya instrumen pengetahuan, sikap dan lembar observasi keterampilan yang valid dan reliabel untuk evaluasi pelatihan perawat penerbangan dasar dengan nilai *Cronbach* berturut-turut 0,866; 0,895 dan nilai Cohen's Kappa 0,700. Tahap ketiga: terdapat peningkatan yang signifikan dari skor rata rata pengetahuan sesudah pelatihan sebesar 6,23 poin ( $p=0,001$ ) dan skor rata rata sikap sesudah pelatihan 10,63 poin ( $p=0,001$ ) serta nilai keterampilan setelah pelatihan seluruhnya pada kategori baik (skor rata-rata 89,13).

**Kesimpulan:** kurikulum dan modul pelatihan perawat penerbangan dasar tersusun berdasarkan hasil *need assessment* pada tahap kualitatif; kurikulum, modul dan instrumen pelatihan valid dan reliabel; serta pelatihan perawat penerbangan dasar berpengaruh terhadap pengetahuan, sikap dan keterampilan perawat dalam melakukan evakuasi medis udara non militer.

**Kata kunci:** ambulans udara, pengetahuan kesehatan, sikap, praktik, Indonesia kurikulum

### Abstract

**Background:** Aeromedical evacuation is a series of events in which patients are transferred from one place to another using air transportation and supporting personnel qualified as flight doctors and air nurses. Nurses with flight nursing qualifications are really needed in carrying out air medical evacuations to be able to provide nursing care during flights with all limitations including limited movement space, limited lighting, infrastructure and changes in the flight environment, while basic flight nurse training has not yet been provided. Indonesia. This research aims to develop a basic flight nurse training program with the aim of enabling nurses to carry out non-military aeromedical evacuations.

**Research methods:** this research is a mixed-method study with a sequential exploratory design conducted during March-December 2023. Phase one begins with interviewing nurses and aeromedical evacuation service providers about their experiences and perceptions in carrying out aeromedical evacuation. Second stage: preparing the curriculum, modules and instruments (knowledge, attitudes and skills observation sheets), testing the validity of the curriculum and modules by 6 experts as well as testing the validity and reliability of instruments for evaluating training programs for 90 nurses. Third stage: pre-experimental research using one group pre-test post-test to see the effect of the training intervention carried out. Training was carried out for 4 days for 30 nurses. Bivariate data analysis using Paired t-test and multivariate using multiple linear regression.

**Research result:** Qualitative stage 1 found 7 themes namely 1) experience of aeromedical evacuation, 2) challenges faced by nurses and aeromedical evacuation service providers, 3) knowledge that nurses must master in carrying out aeromedical evacuation, 4) efforts to improve knowledge and skills, 5) Leveling flight nurse training, 6) flight nurse training methods, and 7) flight nurse training evaluation methods. In the second stage of the research, a basic flight nurse module was composed consisting of 5 modules, development of knowledge instruments, attitudes and skills observation sheets, and testing of valid and reliable knowledge instruments, attitudes and skills observation sheets for evaluation of basic flight nurse training with Cronbach values. also 0.866; 0.895 and Cohen's Kappa value 0.700. Third stage: there was a significant increase in the average knowledge score after training of 6.23 points ( $p=0.001$ ) and the average attitude score after training of 10.63 points ( $p=0.001$ ) and the skill scores after training were all in the good category (average score 89.13).

**Conclusion:** the curriculum and basic flight nurse training modules are structured based on the results of the needs assessment at the qualitative stage; curriculum, modules and training instruments are valid and reliable; as well as training basic flight nurses influence the knowledge, attitudes and skills of nurses in carrying out non-military aeromedical evacuations.

**Keywords:** air ambulances, health knowledge, attitudes, practice, Indonesia, curriculum