

**ABSTRAK**  
**PENGARUH PELATIHAN INOVATIF TERHADAP KINERJA PETUGAS**  
**KESEHATAN HAJI INDONESIA**  
**Kajian Geriatri Morbiditas, Mortalitas dan Cost-Effectiveness**  
**Jemaah Haji Indonesia Usia Lanjut**

**Latar Belakang.** Kemampuan menjalankan ibadah haji sebagai rukun Islam ke-5 bagi yang mampu (*istithoah*) secara fisik, psikik dan finansial di Indonesia makin meningkat. Dengan makin meningkatnya umur harapan hidup, maka jemaah haji usia lanjut (JHUL) jumlahnya juga makin bertambah. Hal tersebut membawa dampak makin meningkatnya angka morbiditas dan mortalitas pada golongan JHUL tersebut, karena golongan usia ini secara fisik sudah disertai kondisi kronis seperti *impairments*, *disabilities* atau bahkan *diseases*, yang berbeda dengan kondisi usia muda. Oleh sebab itu apakah pemahaman dan pelatihan penanganan para usia lanjut diperlukan oleh Tenaga Kesehatan Haji Indonesia (TKHI) dalam pengelolaan jemaah haji usia lanjut agar dapat menekan angka morbiditas dan mortalitas? Berapakah besarnya beban finansial yang diperlukan dalam penambahan pemahaman dan pelatihan untuk pengelolaan tiap orang JHUL ?

**Bahan dan Cara.** Jenis penelitian ini adalah kuasi eksperimental. Populasi penelitian adalah seluruh TKHI embarkasi Surakarta tahun 2014 sebanyak 213 orang, sebagai sampel penelitian adalah TKHI Daerah Istimewa Yogyakarta. Penelitian mulai September 2014 sd November 2014. TKHI yang diberikan pelatihan inovatif (di Yogyakarta) yang berupa tambahan pemahaman teori dan praktek pelatihan penanganan khusus JHUL, disamping pelatihan dasar umum nasional, sejumlah 21 orang dan sebagai kontrol TKHI embarkasi Surakarta yang hanya mendapatkan pelatihan dasar umum nasional sejumlah 21 orang. Dilakukan pretest pada kedua kelompok, dan posttest pada kelompok perlakuan. Hasil yang diamati adalah angka morbiditas rawat jalan dan rujukan, serta mortalitas JHUL di bawah pengelolaan kedua kelompok TKHI tersebut sepanjang waktu haji (di Arab Saudi). Hasil dianalisis secara statistik dengan menggunakan *chi-square* dengan  $p < 0,05$ .

**Hasil.** Skor hasil pretest kelompok perlakuan 48,50 kelompok kontrol 48,07 dengan  $p = 0,337$ . Skor hasil posttest kelompok perlakuan 86,83 ( $p = 0,033$ ). Jumlah JH kelompok intervensi seluruhnya 2.580 orang dengan JHUL 730 orang (28,29%), kelompok kontrol 2.562 orang dengan JHUL 697 (27, 21%). Morbiditas JHUL yang sakit dan rawat jalan kelompok intervensi 2.216 orang, dan kontrol 2.144 orang. Morbiditas JHUL yang dirujuk kelompok intervensi 10 orang, kelompok kontrol 33 pasien (*Odds ratio* 2,94  $p = 0,002$ ). Mortalitas JHUL kedua kelompok sama (5 orang), pada fase *praarmina* kelompok intervensi wafat 3 orang, kelompok kontrol nul (tidak ada yang wafat). Fase *armiña* dan *pascaarmiña* kelompok intervensi yang wafat 2 orang, kelompok kontrol 5 pasien (*Odds ratio* 0,263,  $p = 0,207$ ). Biaya pelatihan inovatif Rp 8.850.000, dapat menghemat sebesar Rp 7.413.850,- per orang JHUL yang sakit (intervensi vs kontrol = 1: 6,38), dan biaya kematian Rp 4.315.133,00 per orang JHUL yang wafat. Sehingga pelatihan inovatif bersifat *Cost Effective*.

**Kesimpulan.** Pelatihan inovatif dapat menurunkan morbiditas rujukan jemaah haji lanjut usia dengan *Odds ratio* 2,94 dan secara statistik bermakna, dan menurunkan angka mortalitas dengan *Odds ratio* sebesar 2,63, serta pembiayaan yang *Cost-Effective*.

**Kata kunci:** pelatihan inovatif-TKHI-morbiditas-mortalitas- jemaah haji usia lanjut00

# ABSTRACT

## EFFECT OF INNOVATIVE TRAINING ON THE PERFORMANCE OF HAJJ HEALTHCARE WORKERS OF INDONESIA

### Study of Geriatrics Morbidity, Mortality, and Cost-Effectiveness of Indonesian Elderly Hajj Pilgrims

**Background.** The ability of muslim society in Indonesia to perform hajj pilgrimage as the completion of the fifth pillar of Islam is increasing. The dimensions of ability (*istithoah*) in hajj pilgrimage include physical, psychological and financial ability. With the increase of life expectancy, the number of Indonesian elderly hajj pilgrims (EHP) are consequently growing. It impacts on the increase of morbidity and mortality in EHP class due to the chronic conditions such as impairments, disabilities and diseases. Therefore, are understanding and training of EHP required by the Hajj Healthcare Workers of Indonesia (HHWI) in the management of elderly pilgrims in order to reduce the number of morbidity and mortality? What is the amount of financial burden required in understanding and training for the management of each EHP?

**Materials and Methods.** This is a quasi-experimental study. The population of this study was the whole HHWI (213 persons) in Surakarta embarkation in 2014. The sample of this study was 21 HHWI from Yogyakarta, who received innovative training consists of EHP special care training (theory and practice) beside basic national training in Yogyakarta. This study was conducted on September 2014 until November 2014. 21 HHWI from Surakarta were chosen as control group and only received basic national training. Pretest was performed in both groups while posttest was performed only in treatment group. The results observed are outpatient morbidity and referral, as well as EHP mortality under the management of the two groups during hajj pilgrimage. The results were analyzed statistically using the chi-square  $p < 0.05$ .

**Results.** Pretest score of the treatment and control group were 48.50 and 48.07 with  $p$  value 0.337. Posttest score of the treatment group was 86.83 ( $p = 0.033$ ). Number of hajj pilgrims in treatment group were 2580 patient with 730 EHP (28.29%) while control group has 2562 hajj pilgrims with 697 EHP (27, 21%). EHP morbidity in treatment and control group were 2,216 and 2,144 patients. The number of referred EHP in treatment and control group were 10 and 33 patients (odds ratio 2.94  $p = 0.002$ ). EHP mortality in both groups were same (5 patients). 3 patients were died during pre-armina phase in treatment group, while no patient died during pre-armina phase in control group. 2 patients were died during armina phase and post-armina phase in treatment group. 5 patients were died during armina phase and post-armina phase in control group (odds ratio 0.263, but was not statistically significant  $p = 0.207$ ). Innovative training costs was 8.850.000,00 IDR. Therefore Cost-Effectiveness for EHP referral was 402,272.72 IDR. This innovative training could save 7.413.850,00 IDR per EHP morbidity (treatment group vs control group = 1: 6,38), and 4.315.133,00 IDR per EHP mortality

**Conclusion.** Innovative training could reduce referral morbidity in elderly hajj pilgrims (odds ratio 2.94, statistically significant), reduce mortality rate (odds ratio 2.63) with cost-effective financing.

**Keywords:** *innovative training-Hajj Healthcare Workers of Indonesia (HHWI/TKHI) - morbidity-mortality- elderly hajj pilgrims*