INTISARI

Latar Belakang: Matahari sebagai sumber fototerapi alami, intensitasnya dipengaruhi elevasi permukaan, waktu harian, letak lintang, iklim dan faktor biofisik. Faktor tersebut dipertimbangkan untuk menentukan waktu dan durasi fototerapi alami.
Tujuan: Mendapatkan gambaran sebaran intensitas UV elevasi 0-950 mdpl, pada waktu dan bulan berbeda untuk menentukan waktu dan durasi fototerapi alami di DIY.
Metode: Penelitian deskriptif observasional. Intensitas UV diukur per 10 menit menggunakan *irradiancemeter* pada 19 lokasi, elevasi 0-50 mdpl sampai 900-950 mdpl. Tahap-I pada Oktober-November dan tahap-II Maret-April, dengan 3 sesi pengukuran setiap tahap (pagi, siang, sore).
Hasil: Intensitas UV kedua tahap: Pagi-2 meningkat dibandingkan Pagi-1 yaitu UVA 62% dan 97%; UVB 153% dan 225%; NBUVB 144% dan 223%; intensitas UVA-Siang meningkat 43% dan 1%, UVB 52% dan 31%; NBUVB 72% dan 30%. Sore hari UVA menurun 71% dan 69%; UVB 85% dan 83%; NBUVB 86% dan 83%. Waktu dan durasi berjemur bulan Maret-April yaitu UVA pk.07.00-08.30 WIB: 7’ (>600-950 mdpl), 11’ (>300-600 mdpl), 13’ (0-300 mdpl); atau pk.15.00-16.00 WIB: 20’ (>600-950 mdpl), 19’ (>300-600 mdpl), 13’ (0-300 mdpl); UVB: pk.08.30-10.00 WIB dan 11.00-13.00 WIB dengan durasi 5’ dan 4’ (>600-950 mdp), 7’ dan 5’ (>300-600 mdpl) dan 8’ dan 6’ (0-300 mdpl).
Kesimpulan : Gambaran sebaran intensitas UV elevasi 0-950 mdpl bulan Maret-April lebih tinggi dibandingkan Oktober-November. Intensitas pagi rendah, siang memuncak dan sore menurun. Waktu berjemur kedua tahap pengukuran sama, UVA pk.07.00-08.30 atau pk.15.00-16.00 WIB; UVB pk.08.30-13.00 WIB. Durasi berjemur UVA dan UVB per kelompok elevasi hanya direkomendasikan pada bulan Maret-April (cuaca cerah) berdasarkan dosis inisial dan tipe kulit.

Kata Kunci: *natural phototherapy, ultraviolet*, UVA, UVB

ABSTRACT

Background: The sun is a source for natural phototherapy, it’s intensity influenced by surface elevation, daily time, latitude, climate and biophysical factors. These factors are considered to determine the time of UV exposure for natural phototherapy.
Objective: To get an overview of the distribution of UV elevation from 0-950 meters above sea level, at different times and month to determine the time of natural phototherapy in Yogyakarta.

Methods: Descriptive observational research. UV intensity was measured per 10 minutes using an irradiancemeter at 19 locations, elevation from 0-50 masl to 900-950 masl. Phase I in October-November and phase II March-April. Each stage is devided into 3 measurement sessions (morning, afternoon, evening).
Results: UV intensity of the two phase: Morning-2 increased compared to Morning-1, which UVA 62% and 97%; UVB 153% and 225%; NBUVB 144% and 223%; UVA intensity at mid day increased by 43% and 1%, UVB by 52% and 31%; NBUVB by 72% and 30%. In the afternoon UVA decreased by 71% and 69%; UVB by 85% and 83%; NBUVB by 86% and 83%. The time and duration of sunbathing in March-April are UVA at 07.00-08.30 WIB: 7 '(> 600-950 masl), 11' (> 300-600 masl), 13 '(0-300 masl); or at 15:00 to 16:00 WIB: 20 '(> 600-950 masl), 19' (> 300-600 masl), 13 '(0-300 masl); UVB: at 08: 30-10: 00 WIB and 11: 00-13: 00 WIB with duration of 5'and 4' (> 600-950 mdp), 7'and 5' (> 300-600 masl) and 8' and 6'(0-300 masl).
Conclusion: The distribution of UV intensity at elevation from 0-950 masl in March-April is higher than October-November. Morning had low intensity, afternoon was peaked and evening was decreased. Sunbathing time for both measurements is the same, UVA at 07.00-08-08.30 or 15.00-16.00 WIB; UVB pk.08.30-13.00 WIB. The duration of UVA and UVB sunbathing per elevation group is only recommended in March-April (sunny weather) based on initial dosage and skin type.

Keywords: natural phototherapy, ultraviolet, UVA, UVB