

FAKTOR-FAKTOR YANG BERHUBUNGAN DENGAN KEJADIAN *DRY EYES SYNDROME* SAAT BERENANG PADA PENGGUNA UMUM KOLAM RENANG KORPS MARINIR CILANDAK

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Abstrak

Pengelolaan kualitas air kolam renang penting dilakukan untuk mencegah terjadinya gangguan kesehatan, salah satunya adalah DES (*Dry Eyes Syndrome*) yang dapat terjadi jika sisa klorin bebas dan pH air kolam kadarnya tidak memenuhi syarat. Prevalensi *dry eye* di Indonesia pada tahun 2017 adalah 30,6%. Penelitian bertujuan untuk mengetahui faktor-faktor yang berhubungan dengan kejadian DES saat berenang. Frekuensi berenang, durasi berenang, pengetahuan, sikap dan tindakan mengenai pencegahan DES saat berenang dinilai menggunakan kuesioner, kadar sisa klorin bebas dan pH air diukur menggunakan komparator *Lovibond*, sedangkan DES dinilai menggunakan tes Schirmer I. Penelitian ini menggunakan metode observasional dengan desain *cross sectional*. Sampel diambil menggunakan teknik *consecutive sampling* berupa 132 pengguna umum kolam renang Korps Marinir Cilandak yang memenuhi kriteria inklusi dan eksklusi. Hasil uji *Chi-Square* menunjukkan bahwa tidak terdapat hubungan antara pH air ($p=0,124$; OR=1,720; CI 95%=0,860-3,437), frekuensi berenang ($p=0,116$; OR=5,172; CI 95%=1,043-25,662), pengetahuan ($p=1,000$; OR=0,844; CI 95% =0,198-3,606) dan sikap ($p=0,594$; OR=1,318; CI 95%=0,477-3,643) dengan kejadian DES, serta terdapat hubungan antara kadar sisa klorin bebas ($p=0,031$; OR=2,646; CI 95%=1,072-6,531), durasi berenang ($p=0,012$; OR=2,619; CI 95%=1,228-5,588), dan tindakan ($p=0,027$; OR=3,921; CI 95%=1,366-11,255) dengan kejadian DES. Hasil uji regresi logistik menunjukkan bahwa kurangnya tindakan pencegahan DES saat berenang merupakan faktor resiko yang paling berpengaruh (OR=2,872; CI 95%=1,059 – 7,788) dalam meningkatkan kejadian DES saat berenang.

Kata Kunci : *Dry Eyes Syndrome*, kadar sisa klorin, kolam renang, perilaku, pH air,

ASSOCIATED FACTORS OF DRY EYES SYNDROME INCIDENCE WHILE SWIMMING IN KORPS MARINIR CILANDAK SWIMMING POOL PUBLIC SWIMMERS

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Abstract

Management of pool water quality is important to prevent health issues in swimming pool, such as DES (Dry Eyes Syndrome) caused by unqualified free chlorine residual and water pH level. This study aims to determine factors that related to DES incidence while swimming. Dry eye prevalence in Indonesia on 2017 reached 30,6% population. Swimming frequency and duration, knowledge, attitude and action of DES prevention while swimming were assessed by questionnaire, free chlorine residual and water pH level were measured with Lovibond comparator, while DES was examined by Schirmer's test I. The method of this study was observational with cross sectional design. Sampling was taken with consecutive method of 132 qualified (both inclusive and exclusive) public swimmers at Korps Marinir Cilandak Swimming Pool. Through Chi-Square test, the research finds no correlation among water pH ($p=0,124$; $OR=1,720$; $CI\ 95\%=0,860-3,437$), swimming frequency ($p=0,116$; $OR=5,172$; $CI\ 95\%=1,043-25,662$), knowledge ($p=1,000$; $OR=0,844$; $CI\ 95\%=0,198-3,606$), and attitude ($p=0,594$; $OR=1,318$; $CI\ 95\%=0,477-3,643$) towards DES. However, there was correlation between free chlorine residual ($p=0,031$; $OR=2,646$; $CI\ 95\%=1,072-6,513$), swimming duration ($p=0,012$; $OR=2,619$; $CI\ 95\%=1,228-5,588$), and preventive action ($p=0,042$; $OR=3,921$; $CI\ 95\%=1,366-11,255$) with DES. Meanwhile, through logistic regression test, the finding showed lack of DES preventive action while swimming is the highest risk ($OR=2,872$; $CI\ 95\%=1,059-7,788$) that increase DES incidence.

Keywords: Dry Eyes Syndrome, behavior, free chlorine residual, swimming pool, water pH,