

Tren Kelelahan Kerja Selama On Duty pada Pekerja Anjungan Minyak dan Gas Lepas Pantai = Work Fatigue Trend during On Duty Period on Offshore Oil and Gas Rig Workers

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Abstrak

Latar Belakang: Kelelahan kerja merupakan penyebab 80% kecelakaan kerja di industri minyak dan gas yang menerapkan sistem kerja shift secara berkesinambungan.

Tujuan: Untuk menilai perubahan tingkat kelelahan kerja selama on duty pada pekerja anjungan minyak dan gas lepas pantai di Indonesia.

Metode: Pekerja anjungan minyak dan gas lepas pantai di perusahaan X dilibatkan dalam penelitian longitudinal panel survey ini dengan metode consecutive sampling. Data yang diambil adalah data demografi (usia, job position, lama bekerja, riwayat hipertensi dan diabetes) dan kuesioner Occupational Fatigue Exhaustion Recovery 15 (OFER15) dengan 3 subscale; kelelahan akut, kelelahan kronis, dan waktu pemulihan. Pengambilan data dilakukan pada minggu ke 1, 2, 3, dan 4 pada akhir shift.

Hasil: Dari 67 responden didapatkan skor kelelahan akut dan kelelahan kronis pada minggu ke 2 tidak mengalami perubahan signifikan dibandingkan dengan minggu pertama ($P > 0.05$), tetapi meningkat signifikan pada minggu 3 dan 4 ($P < 0.05$). Skor waktu pemulihan pada minggu ke 2, 3, dan 4 menurun signifikan dibandingkan minggu 1 ($P < 0.05$). Uji korelasi menunjukkan adanya hubungan di antara ketiga subscale ($P < 0.05$).

Kesimpulan: Pekerja anjungan minyak dan gas lepas pantai mengalami peningkatan skor kelelahan akut dan kronis mulai minggu ke 3 dan penurunan skor waktu pemulihan mulai minggu ke 2. Manajemen kelelahan sesuai target waktu dan penjadwalan kerja yang optimal diharapkan dapat mengurangi kelelahan kerja dan menurunkan risiko kecelakaan kerja.

.....Background: Work fatigue is responsible for 80% of work accident in oil and gas industry, which applies shift work system for approximately 4 weeks as their regular schedule.

Aims: To assess the change of work fatigue level during on-duty period in the workers of offshore oil and gas rig in Indonesia.

Methods: Workers of the offshore oil and gas rig in company X were involved in this longitudinal panel survey research with consecutive sampling methodology. The collected data were demographic data (age, job position, work period, history of hypertension and diabetes) and Occupational Fatigue Exhaustion Recovery 15 (OFER15) questionnaire with three sub-scales, namely acute fatigue, chronic fatigue, and inter-recovery time. Data were collected in weeks 1, 2, 3, and 4 at the end of shift period.

Results: From 67 respondents, the result shows that score of acute and chronic fatigue in week 2 did not significantly change, compared with first week ($P > 0.05$), but it significantly increased in weeks 3 and 4 ($P < 0.05$). Score of the inter-recovery time in weeks 2, 3, and 4 significantly decreased, compared with week 1 ($P < 0.05$). Correlation test shows relation among three sub-scales ($P < 0.05$).

Conclusions: Workers in the offshore oil and gas rig had an increase of score in acute and chronic fatigue, starting from third week, as well as a decrease of score in inter-recovery time starting from second week. Fatigue management, based on time target and optimal work scheduling, is expected to reduce the work

fatigue, and decrease the risk of work accident.