PERBEDAAN STATUS HIDRASI, KADAR HB PADA SETIAP KATEGORI JENIS PEKERJAAN, ASUPAN ENERGI DAN PROTEIN SERTA ASUPAN MINUM PEKERJA PT.X

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INTISARI

Latar Belakang: Gizi pada pekerja dapat mempengaruhi performa dan produktivitas kerja. Oleh karena itu, diperlukan asupan gizi yang cukup dan sesuai dengan jenis pekerjaan dan beban kerjanya. Beberapa penelitian menunjukkan bahwa asupan energi dan protein yang rendah dapat mempengaruhi kelelahan dan anemia, sementara itu, aktifitas yang berat atau beban kerja yang berat dapat mempengaruhi rendahnya produktivitas pada pekerja. Dehidrasi juga dapat mempengaruhi status kesehatan pekerja.

Tujuan Penelitian: Mengetahui perbedaan status hidrasi pada setiap kategori jenis pekerjaan dan asupan minum pekerja PT.X. Mengetahui perbedaan kadar Hb pada setiap kategori jenis pekerjaan, asupan energi dan protein pekerja PT. X.

Metode Penelitian: Penelitian *cross sectional* dengan metode *purposive sampling* pada 111 pekerja shift siang (14.00-22.00 WIB) mengukur asupan energi, protein dan minum menggunakan metode *Recall 24h*. Parameter status hidrasi (berat jenis urin (BJU) dengan *reagent strip Verify 10P* dan *chart* warna urin)) diukur di awal dan di akhir bekerja. Kadar Hb diukur dengan alat *Hemocue 201+*. Pengambilan data dilakukan selama 3 hari untuk setiap responden. Status hidrasi, kadar Hb pada setiap kategori jenis pekerjaan dianalisis menggunakan *ANOVA (Kruskal Wallis)*. Status hidrasi sebelum dan setelah bekerja dianalisis dengan *paired sample t-test (Wilcoxon)*. Status hidrasi pada tiap kategori asupan minum dianalisis dengan *Mann Whitney.* Kadar Hb pada setiap kategori aupan energi dan protein dianalisis menggunakan *independent sample t-test (Mann Whitney)*.

Hasil Penelitian: 111 responden terbagi menjadi tiga kategori jenis pekerjaan yaitu 8 pekerja kantor, 82 pekerja operator, dan 21 pekerja mekanik. Terdapat perbedaan status hidrasi (BJU (p=0,000) dan warna urin (p=0,002)) sebelum dan setelah bekerja pada pekerja operator. Terdapat perbedaan status hidrasi sebelum dan setelah bekerja pada kategori asupan minum (asupan sehari maupun di tempat kerja) yang rendah. Perbedaan status hidrasi yang signifikan yang dilihat dari BJU maupun warna urin terdapat pada kategori asupan minum sehari rendah (p=0,002 untuk BJU dan p=0,008 untuk warna urin) dan kategori asupan minum di tempat kerja rendah (p=0,004 untuk BJU dan p=0,000 untuk warna urin). Tidak terdapat perbedaan antara jenis pekerjaan maupun asupan energi dan protein dengan kadar Hb (p<0,05).

Kesimpulan: Tidak terdapat perbedaan status hidrasi pada setiap kategori jenis pekerjaan dan asupan minum, tetapi terdapat penurunan status hidrasi (parameter BJU dan warna urin) sebelum dan setelah bekerja pada pekerja operator dan pada pekerja yang termasuk dalam kategori asupan minum rendah. Tidak terdapat perbedaan kadar hb pada setiap kategori jenis pekerjaan, asupan energi dan protein baik baik pada pekerja pria maupun wanita.

Kata Kunci: *Status hidrasi, kadar Hb, jenis pekerjaan, asupan energi, asupan protein, asupan minum, pekerja*

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THE DIFFERENCES OF HYDRATION STATUS, HB LEVEL IN EACH CATEGORIES OF TYPE OF WORK, ENERGY AND PROTEIN INTAKE, AND ALSO WATER INTAKE OF WORKER PT.X

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ABSTRACT

Introduction: Nutrition affects work performance and productivity. Therefore, workers need appropriate nutrient intake according to the types of work and their workload. Some studies show that low energy and protein intake can cause fatigue and anemia, whereas strenuous activity or heavy workload can cause less productivity among workers. Dehydration also being reported in many studies that can affects health status of workers.

Aim: To identify the differences of hydration status in each type of work and water intake categories. To identify the differences of Hb level in each type of work, energy and protein intake categories.

Methods: This was a cross sectional study with purposive sampling method. 111 workers who works at a day shift (14.00-22.00 GMT+7). Measurement of intake were collected by recall 24h to get the energy and protein intake and also water intake data. Hydration status was measured by USG (urine specific gravity) an urine colours pre and post work with reagent strip Verify 10P and urine chart colours as a instruments. Hb level was measured by the specific instruments for measuring hemoglobin, Hemocue 201+. The data was collected in 3 days for each respondent. Hydration status, Hb level in each type of work categories were analyzed by ANOVA (Kruskal Wallis). Hydration status pre-post work in each type of work and water intake categories were analyzed by paired sample t –test (Wilcoxon). Hydration status in each water intake were analyzed by Mann Whitney. Hb level in each energy and protein intake categories were analyzed by independent sample t –test (Mann Whitney).

Results: 111 respondents were divided by 3 types of work, 8 people at office group, 82 people at operator group and 21 people at mechanical group. There were significant differences of hydration status among operator workers pre-post work (USG (p=0,000) and urine colour (p=0,002)). There were significant differences of hydration status pre-post work among worker with low water intake (at the work site (USG, p=0,002; urine colour, p=0,008) and in a full day (USG, p=0,004; urine colour, p=0,000))). There were no significant differences of Hb level among male and female workers in each type of work, energy and protein intake (p>0,05).

Conclusion: There were no differences of hydration status in each type of work and water intake categories, but there was a decrease of hydration status compare to pre-post work among operator workers, there also a decrease of hydration status among worker with low water intake. There were no differences of Hb level among male and female workers in each type of work, energy and protein intake categories

Keywords: *, Hydration status, Hb level, type of work, energy intake, protein intake, water intake, worker*

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