ABSTRAK

Judul : **Perbedaan Delayed Onset Muscle Soreness (DOMS) dan Komposisi Tubuh Berdasarkan Konsumsi Glutamin Pada Fitness Enthusiast di Osbond Gym.**

Nama : **Septian Yudhitama**

Program Studi : **Gizi**

VI BAB, 46 Halaman, 9 tabel, 3 Gambar, 93 Daftar Bacaan (1998 – 2015)

Latar Belakang Olahraga fitnes merupakan kemampuan untuk melakukan latihan tanpa kelelahan. Komponen kebugaran fisik: daya tahan kardiorespirasi, kekuatan otot, daya tahan otot, fleksibilitas dan komposisi tubuh yang menjadi salah satu olahraga kompetitif, resiko terjadinya DOMS dalam latihannya. suplementasi glutamin berfungsi mempertahankan keseimbangan protein positif, serta mengurangi respon inflamasi, efektif dalam mengurangi kehilangan kekuatan dan nyeri otot setelah kerusakan otot akibat latihan yang eksentrik.

Tujuan mengetahui perbedaan *Delayed Onset Muscle Soreness* (DOMS) dan komposisi tubuh berdasarkan konsumsi glutamin pada *fitness enthusiast* di osbond gym.

Metode penelitian ini menggunakan desain *cross sectional.* dengan 80 responden. Data karakteristik didapat melalui wawancara langsung, data persen lemak tubuh dan massa otot ukur dengan *Bioelectrical Impedance Analysis* (BIA) dan skor DOMS diukur menggunakan *Visual Analogue Scale* (VAS) Analisis statistik dengan menggunakan rumus uji T-tes Independen.

Hasil: Sebagian besar responden berjenis kelamin laki-laki (67.5%). Berdasarkan analisis bivariat menunjukan terdapat perbedaan *Delayed Onset Muscle Soreness* (DOMS) dan komposisi tubuh berdasarkan konsumsi glutamin pada *Fitness Enthusiast* di Osbond gym: Persen lemak tubuh laki-laki (p-value= 0.0001), perempuan (p-value= 0.046). Persen massa otot laki-laki (p-value= 0.0001), perempuan (p-value= 0.006). Skor DOMS laki-laki dan perempuan (p-value= 0.0001) ($p<0.05$).

Kesimpulan: responden yang mengkonsumsi glutamin memiliki perbedaan persen lemak tubuh yang lebih rendah, massa otot yang lebih tinggi, dan skor DOMS yang lebih kecil dibandingkan responden yang tidak mengonsumsi glutamin.

Kata Kunci: Glutamin, DOMS, Lemak Tubuh , Massa Otot.

ABSTRACT

Title **: Difference of Delayed Onset Muscle Soreness (DOMS) and Body Composition Based on Glutamine Consumption on Fitness Enthusiast at Osbond Gym**

Name **: Septian Yudhitama**

Studi Program **: Nutrition Science**

VI BAB, 46 pages, 9 tables, 3 pictures, 93 reading lists (1998 - 2015)

Background Fitness is the ability to do exercises without fatigue. Components of physical fitness: cardiorespiratory endurance, muscle strength, muscle endurance, flexibility and body composition which is one of the competitive sports, the risk of DOMS in training. Glutamine supplementation serves to maintain a positive protein balance, as well as reduce the inflammatory response, is effective in reducing muscle strength and pain after muscle damage due to eccentric exercise. **Purpose** find out the difference in Delayed Onset Muscle Soreness (DOMS) and body composition based on glutamine consumption in the fitness enthusiast on the osbond gym.

Method This study used a cross sectional design. with 80 respondents. Characteristic data obtained through direct interviews, percent data on body fat and muscle mass measurements using Bioelectrical Impedance Analysis (BIA) and DOMS scores were measured using Visual Analogue Scale (VAS) Statistical analysis using an independent T-test test formula.

Results Most respondents were male (67.5%). Based on bivariate analysis shows there are differences in Delayed Onset Muscle Soreness (DOMS) and body composition based on glutamine consumption in Fitness Enthusiast at Osbond gym: Percent of male body fat (p-value = 0.0001), women (p-value = 0.046). Percent of male muscle mass (p-value = 0.0001), female (p-value = 0.006). DOMS scores for men and women (p-value = 0.0001) ($p < 0.05$).

Conclusion respondents who consumed glutamine had lower body fat percent differences, higher muscle mass, and lower DOMS scores than respondents who did not consume glutamine.

Keywords: Glutamine, DOMS, Body Fat, Muscle Mass.