

ABSTRACT

Effect of supplementation wheat leaves moringa (*moringa oleifera lam*) and fish meal teri (*stolephorus insularis*) Bone density of elderly (50 -65 years) (study on sidosermo phc surabaya)

The number of elderly in Indonesia in 2011 about 24 million people, or nearly 10% of the population. Experts projected that by 2020, life expectancy was 71.7 years with the elderly into estimates of the number of elderly 28.8 million people (11.34%) (Dumaria Silalahi, 2013). An increase in the number of elderly will cause problems in the elderly, especially the problem of degenerative diseases one of them is osteoporosis prevalence rate is higher so the need for vigilance. Causes Osteoporosis is multifaktoral, such as unhealthy lifestyle and not exercising regularly, as well as the prevention of osteoporosis knowledge is lacking. This is due to the consumption of Indonesian society is still low calcium (Rachman, 2006, in Halimah, 2009) The study aims to determine the effect of supplementation on bone density types elderly.

This study experiments with pre post test with control group design. Sample of 56 elderly women 50-65 years menopause with osteopenia and osteoporosis bone density. Divided into three treatment groups, ie Moringa powder supplementation 3600mg, anchovies 1800 mg, kelor 1800 mg to 900 mg and control teri @ 14 people for 30 days. Bone Density was measured by means of Bone densitometer before and after treatment. Intake of consumption is done with 1x 24-hour recall method.

The experimental results A total of 56 elderly people divided into 4 groups with a mean bone density before and after treatment there is a difference with $p = 0$ for moringa group, $p = 0.046$ for group anchovies and $p = 0$ for a group of Moringa anchovies. While different test ANOVA showed no difference ($p = 0.251$).

The conclusion show that is no difference in the type of supplementation to the bone density For the next exsperiment with a longer time and form of PMT