# Efek aktivitas berjalan kaki terstruktur dalam memelihara fungsi kognitif pada usia lanjut : Uji klinis acak tersamar tunggal = Effect of structured walking activity in maintaining cognitive function in elderly : Single-Blind randomized controlled trial

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Abstrak

[Latar Belakang : Jumlah usia lanjut (Usila) makin meningkat dan tumbuh cepat, yang membawa konsekuensi meningkatnya gangguan terkait usia, termasuk penurunan fungsi kognitif. Penelitian ini bertujuan untuk mengetahui efek pemberian aktivitas berjalan kaki terstruktur, yaitu minimal 6000 langkah/hari, terintegrasi dalam aktivitas sehari-hari dengan kecepatan yang nyaman selama 12 minggu, dalam memelihara fungsi kognitif pada usia lanjut dengan fungsi kognitif normal di komunitas.
Metode : Desain penelitian ini adalah studi ekperimental, berupa uji klinis acak tersamar tunggal. Subyek terdiri dari 20 orang Usila pada kelompok perlakuan yang diberikan aktivitas berjalan kaki terstruktur, dan 19 orang Usila pada kelompok kontrol yang beraktivitas sebagaimana biasanya, selama 12 minggu. Subyek dinilai fungsi kognitifnya menggunakan MoCA Ina pada awal dan akhir perlakuan. Aktivitas berjalan kaki diukur menggunakan pedometer.
Hasil : Aktivitas berjalan kaki terstruktur yang mampu dilakukan oleh kelompok perlakuan adalah 7531 langkah/hari, dan kelompok kontrol adalah 3527 langkah/hari (p=0,000). Pada akhir penelitian, skor total MoCA pada kelompok perlakuan (median=29) adalah lebih tinggi (p=0,022) dibandingkan kelompok kontrol (median=27), dan begitu pula untuk selisih skor MoCA antara awal dan akhir penelitian (rerata selisih pada kelompok perlakuan adalah 3,35; kelompok kontrol adalah 1,47; p=0,003). Efek perlakuan pada domain fungsi kognitif menunjukkan skor Visuospasial/Fungsi Eksekusi secara siknifikan (p=0,08) lebih tinggi pada kelompok perlakuan dibandingkan kelompok kontrol. Selisih skor domain MoCA pada awal dan akhir penelitian ditemukan lebih besar pada kelompok perlakuan pada domain Visuospasial/Fungsi Eksekusi, Bahasa, dan Abstraksi.
Kesimpulan : Aktivitas berjalan kaki terstruktur 7500 langkah/hari memiliki efek positif dalam memelihara fungsi kognitif usia lanjut secara umum, dengan domain yang paling dipengaruhi adalah Visuospasial/Fungsi Eksekusi. Aktivitas ini juga memberikan peningkatan yang lebih besar pada fungsi kognitif secara umum dan pada domain Visuospasial/Fungsi Eksekusi, Bahasa, dan Abstraksi.;Background : Fast growing of elderly population increases disorders related to aging, including decreasing of cognitive function. The objective of this study is to evaluate the effect of structured walking activity, that characterized by minimally 6000 steps/day, integrated to daily activities, with comfortable pace, for 12 week, in maintaining cognitive function in elderly with normal cognitive function in community.
Method : This study design was experimental, single-blind randomized controlled trial. The subjects were 39 elderly, consist of 20 subjects in intervention group and 19 subject in control group. Intervention group were given structured walking activity, and control group did their usual activity, for 12 weeks. Cognitive function were assessed using MoCA Ina in the beginning and end of the study. Walking activity was measured using pedometer.
Results : Amount of walking activity that was able to do was 7531 steps/day in intervention group, and 3527

steps/day in control group (p=0,000). In the end of study, total MoCA score in intervention group (median=29) is significantly better (p=0,022) than control group (median=27), and so did the improvement of MoCA score in the end of study (mean of increasing score in intervention group was 3,35, and in control group was 1,47, p=0,003). Effect on domain of cognitive function showed Visuospatial/Executive function score in intervention group was signifantly better than control group. Improvement in Visuospatial/Excecutive function, Language, and Abstraction domains score was also found larger in intervention group.
Conclusion : Structured walking activity, about 7500 steps/day had a positive effect in maintaining general cognitive function in elderly, and Visuospatial/Executive function was the most influenced domain. The effect of this activity also showed larger improvements in general cognitive function and Visuospatial/Excecutive function, Language, and Abstraction domains., Background : Fast growing of elderly population increases disorders related to aging, including decreasing of cognitive function. The objective of this study is to evaluate the effect of structured walking activity, that characterized by minimally 6000 steps/day, integrated to daily activities, with comfortable pace, for 12 week, in maintaining cognitive function in elderly with normal cognitive function in community.
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