

ABSTRACT

Population ageing and urbanisation have contributed to an increase in the prevalence of chronic diseases burden in Sri Lanka. Understanding the epidemiology of physical activity (PA) in older people is vital for implementing primary prevention efforts in health promotion. Despite the public health importance, there is a significant knowledge gap of PA among the urban-dwelling older population in Sri Lanka and has prevented primary prevention efforts of health promotion among an increasing ageing population. Thus, this study is aimed at identifying PA status and its determinants among the urban-dwelling older population in Colombo, Sri Lanka. A cross-sectional survey involving 880 urban-dwelling older people was conducted using a multi-stage cluster sampling technique. Physical activity was assessed using the Global Physical Activity Questionnaire - version 2. Individual, social and environmental determinants of PA of older people were assessed using a structured multi-dimensional questionnaire based on the socio-ecological model. Data were analysed using SPSS (version 25). Physical activity participation was presented by prevalence, intensity and domains of PA (Activity at work, active transport and leisure time activities). Associations between individual, social and environmental factors with PA were determined using binary and multivariate logistic regression models. Significance level was set at 5% ($p < 0.05$). Homer-Lemeshow goodness-of-fit (H-L goodness-of-fit) test determined the overall model-fit. Odds ratios (OR) more than one indicated the likelihood of being inactive. The response rate was 81.6%. Mean age of the participants was 70 years ($SD = \pm 6.0$ years), and the majority were females (75%). Of the total, 63.2% were in the low-income category and 81.9% had completed secondary level education. Overall, about 79% of the participants were sufficiently physically active and 52.7% were highly active. Women and those who have come from low-income brackets were more active than the participants from other

categories ($p < 0.05$). The total median MET/Week (95% CI) of PA was 3360 (960 - 5520). Activity at work accounted for the highest portion of the total PA [(median (95% CI) = 2400 (240 - 4800)]. In men, fat percentage, waist circumference, balance (semi tandem position) and health status (presence of other diseases, self-rated health (SRH) and frequency of doctor's visits) were found to be significant determinants of PA ($p < 0.05$). In women, age, income, body mass index (BMI), strength (Leg strength and hand grip strength (HGS)), balance (tandem stance position), health status (SRH), pain or ache and frequency of doctor's visits) were found to be the significant determinants of PA ($p < 0.05$). Social or environmental factors were not significantly associated with PA in both men and women. Older people in the age groups 70 to 79 years and 80+ years were more likely to be physically inactive as compared to 60 to 69 years aged group (OR = 2.4, $p < 0.001$ and OR = 1.87, $p < 0.05$ respectively). Women in the middle-income category were more likely to be physically inactive compared to those from the low-income categories (OR = 2.2, $p < 0.05$). In conclusion, the older urban population in Sri Lanka is found to be sufficiently physically active. Activity at work is the most prevalent domain of PA, probably due to poor socio-economic conditions in this target population. Promotion of leisure-time PA in older people need to be prioritized to enhance psychological well-being among them. The PA behaviour in the study population seems to be largely determined by the individual factors. Individual factors associated with PA found in this study should be addressed vigorously in old-age PA promotion activities. However, further research in social and environmental determinants of PA in older people in urban areas would be further studied to confirm the findings.

Keywords: Determinants, older urban people, physical activity, Sri Lanka

Penentu Tahap Kegiatan Fizikal dalam Kalangan Warga Emas Sri Lanka di Kawasan Bandar

ABSTRAK

Penuaan penduduk dan urbanisasi telah menyumbang kepada peningkatan prevalen penyakit kronik yang membebankan di Sri Lanka. Pemahaman mengenai epidemiologi aktiviti fizikal (PA) sangat penting untuk melaksanakan usaha pencegahan utama penyakit kronik. Walaupun pentingnya kesihatan awam, terdapat jurang pengetahuan yang signifikan mengenai tingkah laku PA warga tua yang tinggal di bandar di Sri Lanka yang telah menghalang usaha pencegahan utama untuk mempromisikan kesihatan di kalangan penduduk tua yang meningkat. Oleh itu, kajian ini bertujuan untuk mengenal pasti status PA dan penentu di antara penduduk yang lebih tua yang tinggal di Sri Lanka. Satu tinjauan keratan rentas yang melibatkan 880 orang tua yang tinggal di bandar dilakukan dengan menggunakan teknik pensampelan kelompok pelbagai peringkat. Aktiviti fizikal dinilai menggunakan Soal Selidik Aktiviti Fizikal Global - versi 2. Penentu individu, sosial dan persekitaran PA orang tua dinilai menggunakan borang soal selidik multi-dimensi berstruktur berdasarkan model sosio-ekologi. Data dianalisa menggunakan SPSS (versi 25). Penyertaan aktiviti fizikal dibentangkan mengikut kelaziman, intensiti dan domain PA (Aktiviti di tempat kerja, aktiviti pengangkutan aktif dan waktu luang). Perkaitan antara faktor individu, sosial dan persekitaran dengan PA ditentukan menggunakan model regresi logistik binari dan multivariate. Tahap keertian ditetapkan pada 5% ($p < 0.05$). Ujian kebaikan-fit-homer-Lemeshow (H-L kebaikan-of-fit) menentukan keseluruhan model-sesuai. Nisbah kemungkinan (ATAU) lebih daripada satu menunjukkan kemungkinan tidak aktif. Kadar tindak balas adalah 81.6%. Umur rata-rata peserta adalah 70 tahun ($SD = \pm 6.0$ tahun), dan majoriti adalah wanita (75%). Dari jumlah tersebut, 63.2% berada dalam

kategori berpendapatan rendah dan 81.9% telah menamatkan pendidikan peringkat menengah. Secara keseluruhan, sekitar 79% peserta cukup aktif secara fizikal dan 52.7% sangat aktif. Wanita dan mereka yang berasal dari kumpulan berpendapatan rendah lebih aktif daripada peserta dari kategori lain ($p < 0.05$). Jumlah keseluruhan MET / Minggu (95% CI) PA adalah 3360 (960 - 5520). Aktiviti di tempat kerja menyumbang bahagian tertinggi dari jumlah PA [(median (95% CI) = 2400 (240 - 4800)]. Untuk lelaki, peratusan lemak, lilitan pinggang, keseimbangan (kedudukan separa tandan) dan status kesihatan (kehadiran penyakit lain, kesihatan diri (SRH) dan kekerapan lawatan ke doktor) didapati menjadi penentu penting PA ($p < 0,05$). Untuk wanita, usia, pendapatan, indeks jisim badan (BMI), kekuatan (kekuatan kaki dan tangan kekuatan cengkaman (HGS)), keseimbangan (kedudukan tandem), status kesihatan (SRH), kesakitan atau sakit dan kekerapan lawatan ke doktor) didapati menjadi penentu penting PA ($p < 0,05$). Faktor sosial atau persekitaran tidak banyak dikaitkan dengan PA pada lelaki dan wanita. Orang yang lebih tua dalam kumpulan umur 70 hingga 79 tahun dan 80+ tahun lebih cenderung tidak aktif secara fizikal berbanding dengan kumpulan umur 60 hingga 69 tahun (masing-masing OR = 2.4, $p < 0.001$ dan OR = 1.87, $p < 0.05$). Wanita dalam kategori berpendapatan sederhana lebih cenderung tidak aktif secara fizikal berbanding dengan kategori berpendapatan rendah (OR = 2.2, $p < 0.05$). Kesimpulannya, penduduk bandar yang lebih tua di Sri Lanka didapati aktif secara fizikal. Aktiviti di tempat kerja adalah domain PA yang paling lazim, mungkin disebabkan oleh keadaan sosio-ekonomi yang rendah pada populasi sasaran ini. Promosi PA masa lapang pada orang tua perlu diutamakan untuk meningkatkan kesejahteraan psikologi mereka. Tingkah laku PA populasi yang diuji nampaknya banyak ditentukan oleh faktor individu. Faktor individu yang berkaitan dengan PA yang terdapat dalam kajian ini harus ditangani dengan bersungguh-sungguh dalam aktiviti promosi PA usia tua. Walau

bagaimanapun, penyelidikan lebih lanjut mengenai penentu sosial dan persekitaran PA pada orang tua di kawasan bandar akan dikaji lebih lanjut untuk mengesahkan penemuan tersebut.

Kata kunci: *Penentu, penduduk bandar yang lebih tua, aktiviti fizikal, Sri Lanka*