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Physical Activity, BMI and Health Care Costs in Mid-age and Older Australian Women

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Use of health services and the resulting health care costs increase with increasing BMI. A growing body of evidence suggests that the relationships between BMI and use of health services may be attenuated by physical activity behavior (PA).

PURPOSE: To examine the associations between PA, BMI and claims made on Medicare (the National Health Insurance system which covers all Australians) in mid-age and older Australian women.

METHODS: Cross sectional data from the mid-age (50-55 years in 2001; N=7203) and older (73-78 years in 1999; N=5729) cohorts of the Australian Longitudinal Study of Women's Health, were linked with claims data from the national Medicare data base. After excluding women with BMI <18.5 and those who could not walk 100m unaided, participants were allocated to one of 15 BMI/PA groups according to their BMI ['healthy' (<25); 'overweight' (25-<30); or 'obese' (≥30)] and PA ['nil' (no PA reported); 'very low' (<300 MET.mins/week); 'low' (300-<600); 'moderate' (600-<1200); or 'high' (≥1200)]. Number of claims per year was dichotomized for mid-age women as <15 or ≥15 (high) and for older women as <24 or ≥24 (high).

RESULTS: Compared with those in the healthy BMI/moderate PA category, the relative risk (RR) of being in the high claims category was significantly increased for mid-age obese women across all PA categories (RR=1.26-1.46), and in those who reported 'nil' PA in all three BMI categories (RR=1.36-1.46). Among overweight mid-age women, those who reported moderate or high levels of PA were not at increased risk of being in the high claims category, whereas those who reported nil, very low or low PA were at increased risk (RR=1.23-1.38). All RRs were adjusted for smoking status, alcohol use and education. A similar pattern was seen for the older women, in whom relative risk of high claims was significantly increased in obese women (RR=1.48-1.82), in those who reported nil PA (1.53-1.71), and in overweight women who reported low or nil PA (RR= 1.40-1.57).

CONCLUSION: Health claims could potentially be reduced by encouraging overweight mid-age and older women to do at least 30 minutes of moderate PA daily. However, among obese women, PA did not significantly attenuate the likelihood of being in the high claims category.

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