

investigated the effect of residence type and socioeconomic status on child stunting in Zambia. Household wealth index was constructed based on ownership of using household assets. Chi-square tests, univariate and multiple logistic regression models were used to estimate the effect of many covariates including residence type and household wealth on chronic child undernutrition in Zambia. **Results:** The findings indicate that children under five years from urban areas and those from disadvantaged households are more likely to be stunted compared to their counterparts in rural areas and wealthier households, respectively. Specifically, the results follow a wealth gradient; with children from the poorest households showing higher odds of being stunted compared to their peers in the wealthiest households and a quarter of children of the wealthiest households being stunted. However, the wealth gradient is consistently higher in rural areas compared to urban areas; and much wider than the overall rural-urban odds ratios. **Conclusions:** This study concludes that child stunting is largely a major concern in urban areas that are characterized by a large wealth gradient in which children from less privileged households have a higher burden and risk of being stunted. However, one in four children residing in the wealthiest households is stunted. Although this finding may be counter-intuitive, it has important implications for policies that are aimed at addressing child stunting.

PAM5 EFFICACY OF VACUOTHERAPY (CUPPING OR CUPPING THERAPY) IN OSTEO MUSCULAR PATHOLOGY

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Objectives: to identify, critically evaluate and synthesize the available scientific evidence on the safety and efficacy of cupping or cupping therapy, in the treatment of selected clinical conditions compared to alternatives of usual reference treatment for each of these clinical conditions, in terms of quality of life or improvement of symptoms **Methods:** A search was carried out in at least PUBMED, EMBASE and Cochrane Library. In order to locate possible studies on suction cup therapy that are currently planned or in progress, the International Clinical Trials Registry Platform (ICTRP) has been consulted on the Platform of International Clinical Trials Registries of the World Health Organization. Selection was carried out blindly and independently by two researchers on a list of selection criteria that will be prepared before starting this process. Disagreements were resolved by consensus. The papers identified were evaluated with AMSTAR-II for systematic reviews and Cochrane ROB for clinical trials, independently by two researchers. a narrative description was made and a synthesis of the main outcome measures was offered **Results:** The published results studies do not show safety problems, although numerous published references have been found communicating health problems in relation to the use of this therapy. In addition to this, patients treated with vacuum therapy or cupping therapy presented very small differences in pain reduction of any osteomuscular etiology (osteoarthritis, low back pain, carpal tunnel syndrome, etc.) It is important to emphasize that these few improvements were shown in studies of very low scientific quality. **Conclusions:** The use of vacuum therapy shows, in a good number of studies of very low quality, few benefits and relatively frequent side effects, some of them serious, so its use in this indication would not be recommended

Alternative Medicine & Nutrition - Health Service Delivery & Process of Care

PAM6 COMPARISON OF CHARACTERISTICS AND COSTS OF EXTENSIVE AND SPORADIC USERS OF CHIROPRACTIC SERVICES

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Objectives: This study compared the characteristics and costs associated with extensive and sporadic users of chiropractic services. **Methods:** A retrospective study design was used, utilizing year 2017 nationally representative Medical Expenditure Panel Survey (MEPS) database. Adults age 18 and older with at least one chiropractic visit were included in the study. Extensive chiropractic utilization was defined as 6 or greater visits to a chiropractor within any two-month time-frame or at least 12 total visits, in 2017. This is a conservative definition consistent with American Chiropractic Association (ACA) low back pain treatment guidelines and the International Chiropractors Association (ICA) best practices and guidelines for treatment duration and frequency. Sporadic use was defined as not meeting the criteria for extensive use. Factors compared include proportion of costs paid out-of-pocket, region, race, age, health insurance status, and employment status. Comparisons between the groups were made with Chi-squared tests and t-tests for categorical and continuous variables, respectively. Analyses conducted with SAS version 9.4, significance set at 0.05.

Results: There were 4,373,580 (22.7%) and 11,163,515 (77.3%) adults classified as extensive sporadic chiropractic-users, respectively. The mean (95% CI) total cost of chiropractic services was and \$2070 (\$1750-\$2390) (33% out-of-pocket) and \$348 (\$314-\$382) (47.4% out-of-pocket) for extensive and sporadic users respectively, with the proportion paid out-of-pocket significantly different between the groups. Significant difference was detected between extensive and sporadic chiropractic-users for employment status (employed for full-year)[30.0% versus 36.7%] and sex[44% Male versus 39% Male]. Age, Family income, Region, race, and insurance coverage were not significantly different. **Conclusions:** Most chiropractic users were sporadic users, which may indicate inefficiencies in treatment based on ACA and ICA treatment guidelines. Significant differences were detected among characteristics and proportion of costs paid out-of-pocket between extensive and sporadic users of chiropractic services. Future research should investigate the appropriateness of treatment and cost-effectiveness of treatment among this population.

Alternative Medicine & Nutrition - Medical Technologies

PAM7 DEVELOPING AN AUTOMATED VIRTUAL WALKING COACH FOR UNDERSERVED, SEDENTARY PATIENTS IN PRIMARY CARE: ANALYSIS OF PILOT DATA

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Objectives: Scalable, accessible interventions to increase physical activity in underserved patients are needed. We pilot-tested an mHealth intervention to help ethnic-minority patients set weekly walking goals, ultimately aiming to create an automated virtual walking coach. **Methods:** Sedentary adults ages 21-65 years with body mass index (BMI) >25 kg/m² and a smartphone were recruited from a minority-serving academic primary care clinic. Patients received a Fitbit and 8 weeks of two-way text-based coaching. Using texts, patients set weekly specific, measurable, attainable, relevant, timely (SMART) step goals with reminders and encouragement from their coach. In addition to descriptive statistics, a linear mixed-effects model assessed overall trends in daily steps. Linear regression assessed trends within patients. Bivariate linear mixed-effects models examined associations between patient characteristics and daily steps. **Results:** The analytic sample consisted of 1,323 days with step data from 28 patients with multiple comorbidities. Twenty-one (75.0%) patients were female, 23 (82.1%) were African American, 4 (14.3%) were Hispanic, and 1 (3.6%) was White. Average baseline age was 47.3 years (SD=9.9), weight was 237.3 pounds (SD=58.6), and BMI was 39.3 kg/m² (SD=9.3). Daily average number of steps was significantly higher in Week 8 than in Week 1 (8,336 [SD=3,913] vs. 7,018 [SD=3,704]; p=0.04). Each day in the intervention was associated with a non-significant average increase of 9 steps (p=0.17). Seven (25.0%) patients had a significant increase in daily steps during the intervention, 2 (7.1%) had a significant decrease, and 19 (67.9%) had no significant change. In bivariate analyses, variables significantly associated with increased steps were younger age, lower BMI, Hispanic and White vs. African American ethnicity, higher self-reported health, and employment vs. unemployment. **Conclusions:** Weekly facilitated text-based goal-setting showed early promise towards increasing steps in vulnerable patients. Future work will use imitation learning, sentiment analysis, dialogue modeling, and behavior change theory towards developing an automated virtual walking coach.



Alternative Medicine & Nutrition - Methodological & Statistical Research

PAM8 SUPPRESSION OF TGP ON MYOCARDIAL REMODELING BY REGULATING THE NF-KB PATHWAY

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Objectives: Myocardial remodeling is one of the main mechanisms which leads to chronic heart failure (CHF). Thus, the drugs which suppressed the process of myocardial remodeling showed better clinical outcomes to deal with CHF. Total glucosides of paeony (TGP) which is used in many traditional Chinese medicines (TCM) exhibited promising ethno-pharmacological effects such as immunosuppressant, anti-inflammatory, analgesia, anti-stress, liver disease, allergies, anticoagulant, and cardiovascular activities. This study aims to investigate the effects of TGP on myocardial remodeling by regulating the nuclear factor kappa B cells (NF-κB) pathway. **Methods:** SD rats were selected and divided into five groups (n = 8),

