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**Making Healthy Choices Easy Choices: Low-Cost and Effective Lifestyle Coaching**

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**Background**

- **Unhealthy daily choices** concerning food and physical activity **promote obesity and Type 2 diabetes** especially in those with increased genetic risk who live in obesogenic environments.
- The **practice of medicine** should **extend beyond the medical office** to help patients adopt and sustain healthy behaviors.
- **Lifestyle coaching** for behavior change has been **proven effective** in the NIH's Diabetes Prevention Program and other studies
- **Lifestyle coaching can help patients** sustain health promoting behaviors.
- Labor intensive approaches are **too costly to replicate**.
- **On-line behavior change approaches show promise**.

**Behavior Change Program Goals**

- Increase **knowledge** and **skills**
- Increase **planning** in advance
- Increase **monitoring and tracking**
- Identify and mitigate **personal barriers**
- Increase availability of **social connections**
- Improve **self-efficacy and confidence**
- Adopt and **sustain healthy behavior**

**DPS Physical Activity Prescription (PA Rx)**

**Physical activity prescription (study program)**

- Telephone human coaching support provided by DPS
- On-line application
- Pedometer

**Enhancements post study**

- Streaming videos and revised content
- Office support (recruitment materials, individual & population reports, staff training, customer support)



**Study Goal: To test the feasibility of using on-line coaching to help sedentary adults at risk for diabetes become more physically active.**

### **Methods**

- Recruit sedentary adults via internet and charge them \$9.99 to participate
- Enroll subjects in intervention: Telephone coaching and on-line PA Rx for 3 months
- Complete surveys and physical activity assessments at enrollment, 12 and 24 weeks post enrollment
- Provide inexpensive products as incentives for completing data collection

### **Characteristics of the intervention**

- User's on-line experience is personalized based on individual characteristics and performance.
- Users receive short telephone calls with a human coach at 4 days, 2 weeks, 6 weeks and 10 weeks post enrollment and if not meeting goals or not using the application.
- Users are prompted every week to set attainable physical activity goals and to plan physical activities with click and drag technology.
- Daily, the subject tracks activity using steps measured on a pedometer and calculations from activities not registered on the pedometer.
- Weekly the user reviews prior week's activities and success in meeting personal goals, addresses barriers to achieving goals and plans and commits to the next week's activities.
- Subjects can automatically share progress with others to get support.
- Software informs coach if patient isn't actively engaging the application or meeting personal goals

### **Results**

1. 13/34 never started or dropped out early; 7/34 completed < 7 weeks
2. 15/34 subjects completed the 12 weeks and are the subject of this analysis
3. Mean age 50 yrs, mean BMI 31.1 kg/m<sup>2</sup>
4. Average increase in daily activity points 78/week (calculated from the trend line of the users' self reports).
5. Users logged-on an averaged of 3.1 days/wk and planned 12 physical activities/wk.
6. User met or exceeded their physical activity goals 61% of the weeks.
7. Of the 20 barriers available, the most common ones addressed in the weekly reviews were: no time; discouraged easily; too tired; chronic pain; no time at work.
8. Self-reported success in meeting the barrier chosen the prior week: 17% very successful, 52% somewhat successful and 31% not very successful

### **Conclusions**

- This feasibility study suggest that an internet-based personalized behavior change program designed to increase physical activity might be successful in increasing step counts and mitigating barriers in sedentary and overweight subjects.
- Internet-based coaching programs may be able to efficiently and effectively help healthcare providers deliver cost- effective diabetes prevention and treatment programs with less staff time or administrative burden.