

Videophones for Wellness Coaching in an Overweight Population

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Problem. Obesity-related conditions are the second leading cause of death in America and they require pharmacological, educational and supportive approaches, according to the American Dietetic Association. Supportive approaches such as group processes, formal behavioral training and brief individual medical counseling are more successful than physiological interventions alone for long-term weight management. Health promotion research favors working with obese patients in the context of home, where they are faced with difficult health choices and this has typically been done by telephone or home nursing visits. Telephone care has been effective in clinical trials for cardiac symptom monitoring, diabetes treatment counseling, emotional symptom management and emergency department follow-up, and telephone interviews are as reliable as face-to-face interviews. Portable videophones can now be used with analog telephone lines, and videophones have been satisfactory for home health care to frail elderly patients. However, there is no evidence that videophones are superior to audiophones for care delivery. This study is evaluating whether wellness coaching delivered to obese patients by videophone is any more effective than wellness coaching delivered by audiophone. Outcome comparisons include: 1) improved self-care; 2) improved self-concept; 3) improved health-promoting behaviors; 4) wellness-care satisfaction; and 5) weight loss. Results will also describe usability and barrier factors associated with videophone use.

Methods. The design is a randomized two-group clinical trial with pre- and post-intervention measures. A convenience sample of 60 OHSU Metabolic Clinic outpatients who live in the local telephone area are recruited and randomly assigned to the experimental (videophone) or control (audiophone) group. Subjects receive wellness coaching for four months with 20 scheduled calls from a nurse trained and mentored for this purpose. The calls focus on empowerment, self-care, health promotion ideas and reinforcement within the context of personal health goals. The intervention device is a loaned *8x8ViaTV* videophone unit that includes an 8"x 6"x 4" camera and screen, an AC adapter and two

lines connected to a telephone. It is installed in a relatively private area of the home where there is at least a 24" x 24" surface with room for a lamp and a chair, and subjects learn to use it during the consent visit. Data are collected via questionnaires, a chart abstraction tool, home observations, taped interviews with patients and nurses and logs from patients and nurses that describe call content, process and satisfaction for each call. Dependent variables are measured with the *Exercise of Self-care Agency Scale*; the *Duke-UNC Health Profile-Emotional Function Scale*; the *Health-Promoting Lifestyle Profiles Scale*; the *Weight Log*; and the *Wellness Care Satisfaction Scale* (adapted from the Rand Patient Satisfaction Questionnaire). Data collection is ongoing. Analyses will include quantitative and qualitative methods.

Results. The first cohort includes 18 of 29 subjects invited to participate (1 E and 1 C subject have withdrawn). The E group are 9 women with a mean body mass index (BMI) of 29.1; the C group are 6 women and 3 men with a mean BMI of 55.1. On a scale of 1 to 4, both groups have mean environmental suitability-for-videophone ratings of 2.6. That is, most have had to move furniture and clutter to accommodate the unit and few have adequate lighting. The videophones have functioned well, except for a few weather-related disruptions. Subjects report high call satisfaction and nurses interviewed to date prefer the videophone because of ability to observe nonverbal behaviors.

Ramifications. Extremely high health care costs require that providers and policy makers deal with how to transform our care delivery system so that it is more affordable and better able to address patients' needs. Image-associated information exchange and distance care are research areas that must be developed for nursing advancement. The videophone may improve care quality at low cost by extending ambulatory nursing to at-risk patients at home or work. Findings will provide insights about patient preferences, nurse-patient interactions and clinic nursing service expansion possibilities.