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Craig Ravesloot Ph.D.

University of Montana Rural Institute - Research and Training Center on Disability in Rural Communities

University of Montana Rural Institute
scholarworks-reports@mso.umt.edu

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Marketing Health Promotion for People with Disabilities

Background:

Healthy People 2010 is the blueprint for improving the health and well being of all Americans. Its overall focus is to decrease health risks and to increase the proportion of people engaging in healthy behaviors. For the first time, *Healthy People* includes a chapter on the health of people with disabilities. Chapter Six specifically addresses secondary conditions as a public health concern. Secondary conditions are medical and psycho-social conditions people often experience following the onset of disabilities or chronic illnesses. Our research suggests people with disabilities annually experience 14 secondary conditions that limit their health and independence.

Research Goals:

This brief report describes recent research on marketing physical activity services to Medicaid beneficiaries. The primary goal of our research was to determine the relative effectiveness of active versus passive marketing techniques for recruiting people with disabilities into an exercise program. A secondary goal was to identify and rank-order the study cohort's most-problematic barriers to accessing physical fitness services.

While there are many different approaches to changing health behavior, health education remains standard for teaching people strategies to prevent illness or injury, and to maintain or even improve their health. Structured programs that target various behaviors, including nutrition and physical activity, can teach complex health promoting behavior. Our packaged program, "Living Well with a Disability" has been shown to be effective in helping people with disabilities improve their health and reduce their use of other healthcare services.

Widespread distribution is the key to translating effectiveness research into programs that improve a population's health. Health promotion researchers need effective marketing strategies to stimulate demand for the services they develop.

Methods:

With the cooperation of the Montana State Medicaid Services Bureau, we identified 224 Medicaid beneficiaries who agreed to participate in our marketing study. Most (65.6%) participants were female and were, on average, 48.1 years old. Just over 90% indicated they are Caucasian and 10.7% indicated that they are Native American.

Table 1 shows the frequency for each impairment group represented in the study.

Table 1: Frequency of People Indicating Each Impairment Group (n =224)

Impairment Type	Freq	%	Impairment Type	Freq	%
Walking problem	96	43.0	Hearing problems	14	6.3
Back or Neck problem	89	39.7	Spinal Cord Injury	12	5.4
Arthritis	86	38.4	Cancer	9	4.0
Mental Disorder	77	34.4	Amputee	8	3.6
Lung / Breathing problems	57	25.4	Cerebral Palsy	7	3.1
Eye / vision problems	56	25.0	Multiple Sclerosis	6	2.7
Fractures, bone/joint injury	46	20.5	Muscular Dystrophy	4	1.8
Hypertension	37	16.5	Post Polio	2	0.9
Diabetes	34	15.2	Other*	145	64.7
Heart problem	22	9.8	Traumatic Brain Injury**	0	0
Stroke problem	15	6.7	Mental Retardation**	0	0

*The "other" category included a variety of medical conditions such as epilepsy and fibromyalgia.

**Individuals with cognitive impairment were not part of this study cohort.

Procedures and Techniques for Recruitment:

The study examined two alternative marketing methods for recruiting people into a physical activity program. Participants consented to be randomly-assigned to one of two treatment groups. Individuals in both groups were recruited to participate in *New Directions for Living Well*, our community health promotion program for people with chronic disabling injuries and illnesses.

Established in 1998, *New Directions* is a interdisciplinary health promotion program that uses traditional rehabilitation such as physical and occupational therapy to help people engage in traditional health promotion strategies (i.e. physical activity and nutrition counseling).

Although participants in this study were recruited to engage in an exercise program, we also addressed any acute rehabilitation needs discovered during the initial interview, (i.e. back pain treated with ultrasound).

During a six-month period, the first treatment group received a series of three newsletters, each focusing on a common, specific secondary condition (e.g. chronic pain) and describing how exercise could treat and manage that condition.

A research team member, trained in using motivational interviewing (MI) techniques,

telephoned each member of the second treatment group. Miller & Rollnick developed this technique to facilitate health behavior decision making and adoption. Based on the *Transtheoretical Model of Behavior Change* (Prochaska & Diclemente, 1983), it suggests that people tend to move through five stages on their way to behavior change: Pre-contemplation, Contemplation, Preparation, Action, and Maintenance. Functionally, the technique helps individuals think through the advantages and disadvantages of engaging in a specific health behavior (e.g. exercise).

Interviewers' kept telephone calls brief, averaging 15 minutes in length. The intervention was considered complete if an individual: 1) scheduled an intake interview or 2) requested no further telephone contact.

Measures:

Our clinic records were the primary outcome measure – these recorded which individuals attended an initial meeting to plan an exercise program. The secondary measure, the *Disability and Health Perceived Barriers Questionnaire* identified participants' most-problematic barriers to accessing physical fitness services. Table 2 ranks the top ten barriers by severity.

Table 2: Disability and Health Perceived Barriers Questionnaire

Barrier	Rating (n = 224)	Rank
I get tired easily.	2.21	1
I have pain when I do too much.	1.95	2
My disability is limiting me too much these days.	1.47	3
The weather is often too bad to get out.	1.21	4
I have a hard time thinking and concentrating.	1.18	5
I'm too busy to take time away from other important activities	1.03	6
I don't have accessible transportation.	.95	7
Chemicals in the environment bother me.	.87	8
My weight makes it hard to get around.	.82	9
My daily self-care needs take too much energy.	.81	10

Note: The *Disability and Health Perceived Barriers Questionnaire* has 28 items scaled from 0 (not a problem) to 3 (a very big problem).

Results:

The study produced two significant results. First, the *Disability and Health Perceived Barriers Questionnaire* predicted which individuals would be recruited into the exercise planning process. Recruits reported significantly fewer barriers of less severity than those who were not recruited ($\bar{x}_{\text{recruited}} = 14.8$ and $\bar{x}_{\text{not recruited}} = 19.9$, $t = 3.24$, $p = .002$).

The study's second important finding was the relative effectiveness of each marketing strategy. Overall, the motivational interviewing marketing strategy was significantly more effective in getting individuals to consider and prepare for an exercise program.

Examining outcomes using the criterion of attending an exercise planning interview (i.e. the "preparation" stage of change), the odds ratio for the MI strategy relative to the newsletter strategy was 3.62 (95% CI = 1.60 to 8.21). Participants in the MI group were more than three times as likely to come to an exercise planning session at our facility than those receiving the newsletter series.

If we change the criterion to be at least one exercise visit (i.e. the individual moved into the "action" stage of change), the odds ratio was 2.13 (95% CI = .858 to 5.31). Again, this strategy was more effective – people in the MI strategy group were more than twice as likely to begin exercising at our facility than those receiving the newsletter series. This very brief intervention was more effective in moving people into the preparation stage of behavior change than into the action stage (i.e. beginning an exercise program). Clearly, many individuals needed more MI intervention to move from preparation to action.

Moreover, the overall results for either intervention at moving people into the "maintenance" stage (i.e. regular exercise for six months) were disappointing. While the recruitment methods were successful in recruiting 7.6% of the newsletter group and 22.9% of the motivational interviewing group into exercise planning, very few recruits moved from action into maintenance.

Conclusions and Next Steps:

These encouraging results are an early step in identifying strategies to increase participation in health promotion programs delivered outside a research context. Compared to the passive marketing

(newsletter) technique, this very brief application of motivational interviewing technique effectively increased consumer interest in an exercise program. However, lack of consumer follow-through to targeted behavior change (i.e. a regular post-intervention physical activity program) suggests the intervention was too brief.

Analyzing consumers' perceived barriers may be instructive for health promotion marketers trying to increase the proportion of people with disabilities who engage in regular exercise. Pain and fatigue were rated as most problematic; people with disabilities commonly report these secondary conditions (Seekins, Clay & Ravesloot, 1994). Pain becomes a barrier to fuller participation in life when individuals protect themselves by avoiding activity they fear will lead to increased pain (Fritz, George & Delitto, 2001). The Medicaid beneficiaries in our study may have used similar strategies when considering whether to change their exercise behavior. The study's motivational interviewer provided early anecdotal reports that led us to write specific protocol to address pain as a barrier; however more intervention would certainly be needed to address the study population's pain behavior in an exercise context.

Finally, while outside the scope of this brief report, additional study data indicates this sample had a very low health-related quality of life. Although individuals may have been attracted to the health promotion marketed in this study, the sample's high impairment rates and overall level of limitation may require more extensive intervention in order to increase regular exercise.

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For more information, contact:

Research and Training Center on Disability in Rural Communities, The University of Montana Rural Institute: A Center of Excellence for Disability Education, Research and Services, 52 Corbin Hall, Missoula, MT 59812-7056; (888) 268-2743 Toll-free; (406) 243-5467 V/TT; (406) 243-2349 Fax rural@ruralinstitute.umt.edu; <http://rtc.ruralinstitute.umt.edu>

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