

A Proposed Health Education and Physical Fitness Incentive Program to Decrease Alcohol Misuse and Increase the Physical Health of Rural Probationers

Sarah Graff, MSW Student

Western Michigan University, Kalamazoo MI 49008

Purpose

To implement and test the effectiveness of the proposed Health Education and Physical Fitness Incentive Program in decreasing alcohol misuse and increasing the physical health of rural probationers.

Introduction

This health education and physical fitness program will decrease alcohol misuse and increase the physical health of rural probationers. For the purposes of this study, alcohol misuse is defined by the following: meeting the DSM-IV-TR criterion for alcohol dependence, experiencing severe problems due to alcohol abuse, or displaying hazardous drinking behaviors. Physical health is defined in accordance to one's body fat percentage and weight. Approximately 17.6 million Americans meeting the diagnostic criteria for alcohol abuse or dependence annually (B.F. Grant et al., 2004) which poses a major public health concern (Gmel & Rehm, 2003; Rehm et al., 2003; USDHHA, 2000). Associated costs were estimated to be over \$184.6 billion annually in 2000 (Harwood, 2000). The U.S. Center for Disease Control and Prevention reported in 2000 that alcohol consumption was responsible for 85,000 deaths and poor diet and physical inactivity caused 400,000 deaths (USDHHA, 2000).

This study will include random sampling of a population of adult probationers who misuse alcohol, in the rural community of Michigan's Dickinson County, who want to participate in the study and can safely do so. There will be a control group and an experimental group, each with a sample size of 50.

The physical fitness classes, the treatment for the experimental group, will begin at 20 minutes per session and gradually progress to 40 minutes per session at the end of the 12 weeks. The probationers will receive gift certificates at the beginning of each session as studies have found monetary incentives to increase adherence to exercise (Jeffery & French, 1999; Jeffery et al., 1998; Robinson & Rogers, 1995). If the program is found to significantly decrease alcohol misuse of probationers in the experimental group, the control group will be offered the opportunity to participate in the same program as the experimental group did.

The present study overcomes many of the limitations of the previous research and fills a gap in the literature on the merging of a health education and physical fitness incentive program. Additionally, this program is strengths-based whereas other programs for probationers who misuse alcohol are deficit-based (Saleebey, 1996).

Projected Results/Hypotheses

This program will significantly reduce alcohol misuse and increase the health of rural probationers.

Hypothesis 1: Probationers in the experimental group will have lower Alcohol Dependence (ADS) Scores than probationers in the control group after week one and through and past completion (three and six month posttests).

Hypothesis 2: Probationers in the experimental group will have lower Index of Alcohol Involvement (IAI) scores than probationers in the control group after week one and through and past completion (three and six month posttests).

Hypothesis 3: Probationers in the experimental group will have lower Alcohol Use Disorders Identification Test (AUDIT-C) scores than probationers in the control group after week one and through and past completion (three and six month posttests).

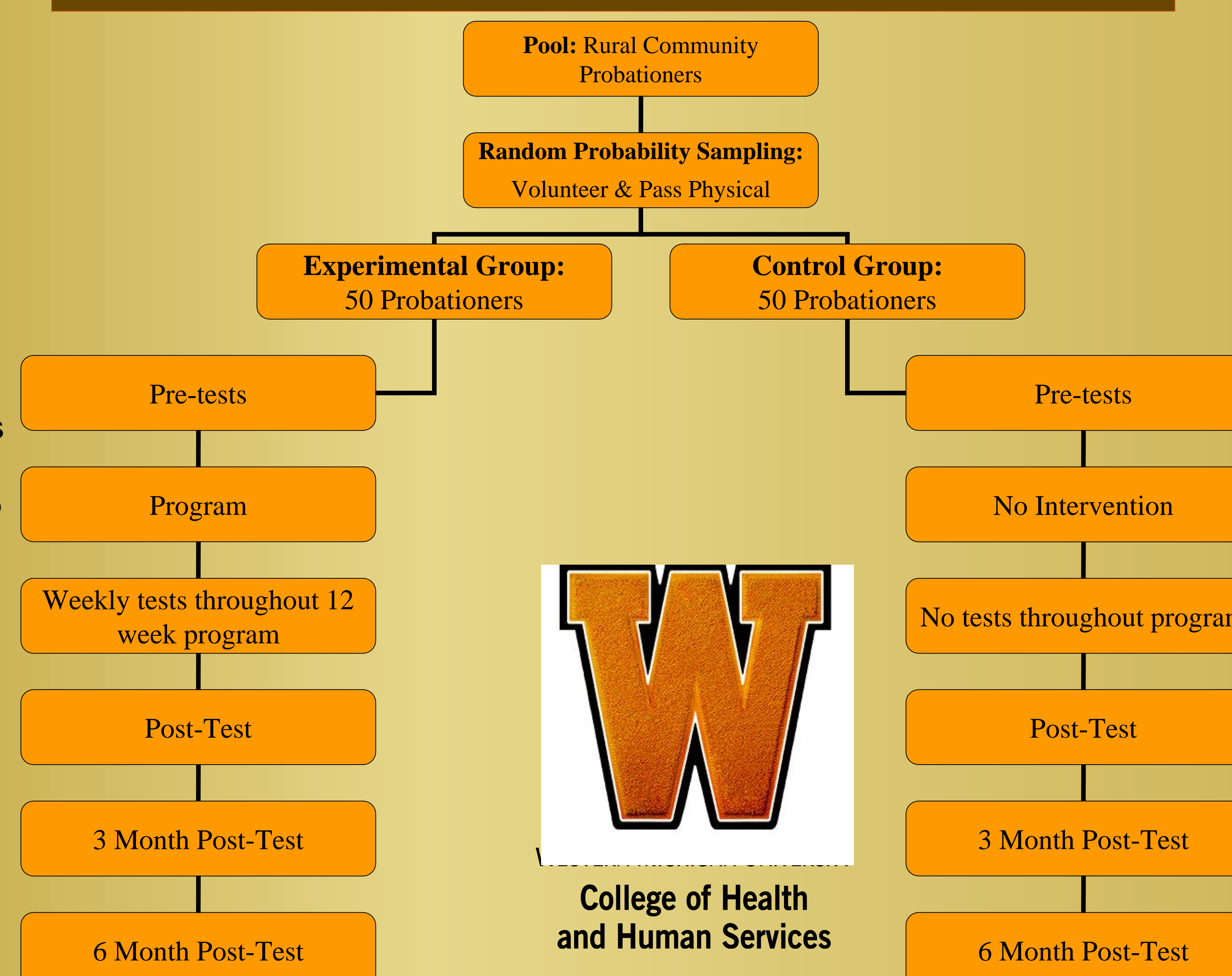
Hypothesis 4: Probationers in the experimental group will have healthier body fat percentages than probationers in the control group after week one and through and past completion (three and six month posttests).

Hypothesis 5: Probationers in the experimental group will have healthier weights than probationers in the control group after week one and through and past completion (three and six month posttests).

Data Collection Plan

A	B	C	D	E	F	G
Indicator	How Indicator is Measured	Who Provides the Data	How Data are Gathered	When Data are Gathered	Where Data are Gathered	Who Collects the Data
Decreased alcohol misuse of rural probationers who participate in the health education and physical fitness incentive program	1. Alcohol Dependence Scale (ADS) 2. Inventory of Alcohol Involvement (IAI) 3. Alcohol Use Disorders Identification Test (AUDIT-C)	Probationer	1. Self-administered in group setting 2. Self-administered in group setting 3. Self-administered in group setting	1. B1-B3 is gathered prior to program 2. B1-B3 is gathered once per week throughout 12-week program 3. B1-B3 is gathered upon program completion 4. B1-B3 is gathered three months after program completion 5. B1-B3 is gathered six months after program completion	All data is gathered at community/physical fitness center (TBD)	Program Coordinator
Decreased weight of probationers who participate in the program	Calibrated Medical Scale	Probationer	Completed by program coordinator with probationer in group setting	This standardized measurement is taken at the same time as those mentioned above	All data is gathered at community/physical fitness center (TBD)	Program Coordinator
Decreased body fat percentage of probationers who participate in the program	Lange Skinfold Caliper	Probationer	Completed by program coordinator with probationer in group setting	This standardized measurement is taken at the same time as those mentioned above	All data is gathered at community/physical fitness center (TBD)	Program Coordinator

Randomized Pretest-Posttest Control Group Design



Methods

➤ Prior to each series of tests completed by both groups remuneration will be offered in the form of gift cards. Only the experimental group will receive remuneration each week during the program as they will be participating in the health education and physical fitness sessions; however, if the program is found to be successful then the control group will be given the opportunity to participate in the sessions and receive the same rewards.

➤ Weekly consecutive participation by members of the experimental group will enter probationers into a drawing to win additional rewards that will be distributed at the six month posttest (must be present to win). Probationers will also have their names entered into the drawing once for every week they return their exercise log.

➤ The sample size of the experimental and control groups will be 50.

➤ Quantitative analysis, an inferential statistical correlation test, ANOVA testing, and independent t-tests will all be used to analyze the data and compare outcomes between the experimental and control groups.