

1. Formulation of Problem

- a. State the issues or general problems being addressed.

The issues that have been stated are that people with serious mental illnesses (SMI) have trouble with getting daily exercise routines that are necessary for the human body and for the overall quality of life of the persons wellbeing and mental health.

- b. State purpose of the study

2. This study's major objective was to look at improvements in Health-related Quality of Life (HRQOL) and a few specific health-related psychosocial characteristics (such as health motivation, health self-efficacy, and self-esteem) that are connected to the amount of physical activity in the CSE program.

Research Questions and Hypothesis

- c. List the research question(s)- If researchers did not address it in the paper, you should create it.

There are 3 research questions in this study.

- (1) Does participation in the CSE Program improve participants' perceptions of their physical and mental health?
- (2) Are improvements in health-related hypothesis social characteristics (such as health self-efficacy, health motivation, and self-esteem) linked to participation in the CSE Program?
- (3) How do members experience the motivational and behavioral process of adopting and maintaining an exercise routine during participation in the CSE?

- d. State the research hypotheses- If researchers did not address it, you should create it.

The implementation of a Clubhouse Structured Exercise (CSE) program as part of a psychosocial rehabilitation program for people with Serious Mental Illness (SMI) will result in increased physical activity levels, improved health-related psychosocial factors (such as self-efficacy and motivation), enhanced Health-Related Quality of Life (HRQOL), and reduced symptoms of depression and anxiety among participants with SMI.

3) Important Factors identified in the study.

- a. Specify the following factors- Target problems (= dependent variable(s); e.g., suicidal ideation), Factors associated with or affect the target problems (= independent variable(s); e.g., social network) and the study population (e.g., domestic violence victims who use the service).

Physical health problems: This is the main dependent variable or target problem discussed in the study. The study focuses on the increased physical health problems faced by individuals with Serious Mental Illness (SMI), including cardiovascular diseases, type II diabetes, obesity-related diseases, and other co-morbid physical health issues.

Independent Variable(s) (Factors associated with or affect the target problems):

Physical activity: This is one of the main independent variables or factors associated with the target problem of physical health problems. The study discusses the importance of physical activity and exercise in modifying unhealthy behaviors, improving health-related psychosocial

factors such as self-efficacy and motivation, and reducing symptoms of depression and anxiety among individuals with SMI.

Study Population:

The study population discussed in the study includes individuals with Serious Mental Illness (SMI), who are reported to have shorter lifespans and greater co-morbid physical health problems compared to the general population in the United States. The study also specifically mentions the Clubhouse Model, a psychosocial rehabilitation program for people with SMI, and its physical activity program called Clubhouse Structured Exercise program (CSE) as a potential intervention for promoting healthy lifestyles in this population.

Independent variables low self-esteem quality of life, physical activities serious

b. Is there sufficient support that the current study addresses a weakness or a gap in previous research? Why?

Yes, the current study addresses a weakness or a gap in previous research. The study specifically focuses on the impact of a structured exercise program, called the CSE Program, on the health-related psychosocial factors of people with severe mental illness (SMI) in the community mental health setting, specifically at Genesis Club and Independence Center. The study integrates both quantitative and qualitative findings to examine the effects of the CSE Program on various health behavior outcomes for individuals with SMI.

One of the strengths of the study is its comprehensive approach, incorporating both quantitative and qualitative data to gain a better understanding of the processes and outcomes of the CSE Program. The study also reviews existing health behavior theories and creates a model of the CSE Program based on empirical evidence from participant descriptions, which adds to the current knowledge on this topic.

4. Research Design

a. Qualitative or quantitative?

This study is qualitative and mixed method.

b. Exploratory, descriptive, or explanatory?

This study is exploratory.

c. Cross-sectional or longitudinal?

This study is longitudinal.

d. Discuss whether this design is appropriate to address the research question (e.g., is this the best design for addressing the question? Or do you want to suggest a different design?).

The mixed methods design used in the study appears to be appropriate for addressing the research question of examining changes in selected client outcomes and understanding the motivational and behavioral processes of changing health behavior through the CSE

(Clubhouse Supported Employment) Program. The concurrent transformative strategy, where both quantitative and qualitative methods were implemented concurrently, allows for a comprehensive approach to data collection and analysis, providing both numerical data and qualitative insights.

5) Sampling

- a. Describe the target population, the study population, and sample size.

The target population in this study is individuals with severe mental illness (SMI) who participate in the Clubhouse Supported Employment (CSE) program through the clubhouse model.

The study population includes clubhouse members who meet the following criteria: 1) Over the age of 18, 2) Diagnosed with severe mental illness based on the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-V), 3) Medical permission from a primary care physician for exercise, and 4) Ability to attend at least two group exercise programs per week. The sample size for the study was 25 participants, with 12 members from the Independence Center and 13 members from the Genesis Club who volunteered to participate in the research study.

- b. Sampling design: Probability or non-probability? Also, specify the type of sampling technique used in the study, if applicable (e.g., a probability sample using simple random sampling, a probability sample using two-stage random-digit-dial design or a non-probability convenience sample)

Based on the information provided, the sampling design used in this study is a non-probability purposive sampling approach. The researchers selected two major clubhouses, Independence Center in St. Louis, MO, and Genesis Club in Worcester, MA, because of their status as clubhouse international training centers and their well-developed CSE program for over 5 years.

The type of sampling technique used in this study is purposive sampling, which is a non-probability sampling method. Purposive sampling involves selecting individuals who meet specific criteria or characteristics that are relevant to the research question. In this case, the researchers purposively selected individuals who were members of the Independence Center and Genesis Club and met the criteria for participation in the CSE program.

- c. Discuss eligibility and inclusion criteria if applicable.

The eligibility and inclusion criteria for the quantitative data analysis in this are not explained.

- d. Describe the major strengths and limitations of sampling plan.

The study utilized both quantitative and qualitative data to provide a

comprehensive understanding of the impact of the CSE Program on various psychosocial factors. This integration of different data types strengthens the validity of the findings and provides a more holistic picture of the research topic.

Small sample size and time constraints: The study acknowledges that the sample size was small and the duration of participation in the CSE Program was short. This may limit the generalizability of the findings and the ability to show significant changes in some results. A larger sample size and longer duration of participation could provide more robust results.

Lack of control group: The study did not include a control group that did not receive any intervention. This absence of a control group limits the ability to establish causal links between participation in the CSE Program and the outcomes observed. The inclusion of a control group would have strengthened the internal validity of the findings.

6) Conceptualization and Measurements

- a. List major variables in the study (e.g., independent, dependent, controlling, moderating, and mediating variables)

Independent variable: Participation in the structured exercise program (CSE Program).

Dependent variables: Health-related psychosocial factors, including health motivation in physical activities, self-esteem, and health-related quality of life (HRQOL).

- b. Describe the operational definitions of the major study variables (this is regarding how to measure the variables)

The four major variables are below.

- Health motivation in physical activity scale.
- Health self-efficacy in exercise scale.
- Rosenberg Self-esteem scale.
- HRQOL measure (SF-12) scale.

- c. Is there any evidence of reliability and validity of these measures in the paper?

Yes, there is evidence of reliability and validity of the measures used in the study. The internal consistency reliability of the measures, as assessed by Cronbach's coefficient alphas, is reported in Table 1. Most of the scales, including Health Motivational Tendency, Health Initiation Motivation,

Persistence Motivation, and Self-Esteem, show substantial reliabilities ($\alpha \geq 0.70$) in both pre-test and post-test measures. However, Health Intention in post-test and Health Self-Efficacy in Exercise have weak reliability.

Additionally, the study mentions that the SF-12, which is a briefer version of the SF-36, is a reliable and valid tool for evaluating perceived mental health and physical health in people with Serious Mental Illness (SMI). The test-retest reliability of SF-12 among people with SMI was tested by intraclass correlation coefficients (ICCs), and the MCS (Mental Component Summary) had an ICC of 0.37 and the PCS (Physical Component Summary) had an ICC of 0.80, indicating substantial reliabilities (Salyers et al., 2013).

Overall, the study provides evidence of reliability and validity for the measures used, except for weak reliability in Health Intention in post-test and Health Self-Efficacy in Exercise.

- d. Discuss the major strengths and limitations of the measures.

while the measures used in the study have strengths such as integrating quantitative and qualitative findings and being based on established health behavior theories, they also have limitations including small sample size, absence of a control group, and the need for further research. These limitations should be considered when interpreting the findings of the study.

7) Data Collection

- a. Discuss when, where, how, and by whom data were collected (e.g., face-to-face interviews, telephone interviews, mail survey, web-based survey, self-administered questionnaires, or case record reviews?)

The data for this study were likely collected through face-to-face interviews conducted by trained interviewers, using a structured protocol or measurement tool to assess various health-related psychosocial factors. The data collection likely took place at the clubhouses where the CSE Program was implemented.

- b. Discuss the major strengths and limitations of the data collection plan.

while the data collection plan has several strengths such as the mixed methods approach and longitudinal design, there are limitations related to small sample size, combining samples from different clubhouses, potential biases in self-administered surveys, and limited timeframe for qualitative interviews. These limitations should be taken into consideration when interpreting the findings of the study.

8. Findings and Discussion

- a. Briefly summarize the main findings of the study.

In summary, the study highlights the positive impact of CSE Programs on physical health and health behavior among people with SMI and provides insights into the psychosocial factors associated with these changes. The findings have implications for other mental health service programs and suggest the importance of integrating physical activity into mental health care services and policies.