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# Ciencia y Deporte



*Physical and recreational activities program for alcoholic adolescents in  
Physical Education class*

*[Programa de actividades físico-recreativas para adolescentes alcohólicos en la clase de  
Educación física]*

*[Programa de atividade físico-recreativa para adolescentes alcoolistas em aula de Educação  
Física]*

Giovannys Pozo Herrera <sup>1\*</sup> , Yoel Ortiz Fernández <sup>1</sup> , Asdrubal Landrove Infante<sup>1</sup> 

<sup>1</sup> University of Holguín. Holguín, Cuba

\* Corresponding author: alandrove@uho.edu.cu

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**ABSTRACT**

**Introduction:** In the program of physical-recreational activities for the incorporation of alcoholic adolescents into Physical Education classes, a methodological conception is assumed from the linkage of quantitative and qualitative approaches.

**Objective:** To implement a program of recreational physical activities that will contribute to their incorporation into Physical Education classes and as a means to eliminate or reduce the consumption of alcoholic beverages.

**Materials and methods:** within the theoretical methods, the analytical-synthetic, the systemic-structural-functional, the historical-logical and the inductive-deductive and empirical methods such as observation, interview, survey and experiment that facilitated the study of the background and theoretical criteria about the current approaches to this problem in adolescents.

**Results:** A needs assessment was carried out, which facilitated the conception of the program on a scientific basis. Its structure was consolidated in stages and actions with control channels, which allowed for a logical and coherent organization in the appropriate use of physical and recreational activities within the Physical Education class by adolescents.

**Conclusions:** A better incorporation of alcoholic adolescents into Physical Education classes was observed.

**Keywords:** Physical Education, adolescents, alcoholics and recreational physical activities

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## **RESUMEN**

**Introducción:** En el programa de actividades físico-recreativas para la incorporación de los adolescentes alcohólicos a las clases de educación física se asume una concepción metodológica desde la vinculación de los enfoques cuantitativos y cualitativos.

**Objetivo:** implementar un programa de actividades físicas recreativas que contribuirán a la incorporación de los mismos a las clases de educación física y como un medio para poder eliminar o disminuir la ingestión de bebidas alcohólicas.

**Materiales y métodos:** dentro de los métodos teóricos, el analítico-sintético, el sistémico-estructural-funcional, el histórico-lógico y el inductivo-deductivo y métodos empíricos como la observación, la entrevista, la encuesta y el experimento que facilitaron el estudio

de los antecedentes y criterios teóricos acerca de los enfoques actuales de este problema en los adolescentes.

**Resultados:** la realización de un diagnóstico de necesidades que facilitó la concepción del programa sobre una base científica, en su estructura se consolidó en etapas y acciones con las vías de control, lo cual permitió una organización lógica y coherente en el uso adecuado de las actividades físico recreativas dentro de la clase de educación física por los adolescentes.

**Conclusiones:** se constató una mejor incorporación de los adolescentes alcohólicos a las clases de educación física.

**Palabras clave:** Educación física, adolescentes, alcohólicos y actividades físicas recreativas

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## RESUMO

**Introdução:** O programa de atividades físicas e recreativas para a inclusão de adolescentes alcoolistas nas aulas de educação física adota uma abordagem metodológica que combina abordagens quantitativas e qualitativas.

**Objetivo:** Implementar um programa de atividades físicas e recreativas que contribua para a inclusão de adolescentes alcoolistas nas aulas de educação física e como meio para eliminar ou reduzir o consumo de álcool.

**Materiais e métodos:** Os métodos teóricos incluem abordagens analítico-sintéticas, sistêmico-estruturais-funcionais, histórico-lógicas e indutivas-dedutivas. Métodos empíricos, como observação, entrevistas, questionários e experimentos, facilitaram o estudo dos antecedentes e critérios teóricos em relação às abordagens atuais para esse problema entre adolescentes.

**Resultados:** Uma avaliação de necessidades facilitou o delineamento científico do programa. Sua estrutura foi consolidada em etapas e ações com mecanismos de controle, permitindo uma estrutura organizacional lógica e coerente no uso adequado de atividades físicas e recreativas nas aulas de educação física para adolescentes.

**Conclusões:** Observou-se melhora na participação de adolescentes com alcoolismo nas aulas de educação física.

**Palavras-chave:** Educação Física, adolescentes com alcoolismo e atividades físicas e recreativas

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## INTRODUCTION

Worldwide, one of the causes of the deterioration of population health due to alcohol use is a governmental concern, constituting one of the main mental, social, and physical health problems. These negative consequences lead to the progressive deterioration of individuals, especially adolescents and young people in all societies. Therefore, many states are working on education and prevention of this scourge, from which individuals constantly influenced by the propaganda surrounding alcohol are not exempt.

In this regard, De la Rosa *et al.*, (2019) found in a study conducted in the province of Granma, a predominance of the 15 to 19 age group, which coincides with the present research. For their part, Macías *et al.* (2020) in Ecuador had different results, where adolescents between 11 and 14 years old predominated. Although alcohol consumption is increasingly evident at younger ages, this behavior predominates in the second stage of adolescence (Mora 2019 and Cabanillas 2022). For their part, Blázquez *et al.* (2022) reported a higher percentage of consumption of both drugs in the 14 to 16 age group; and they mentioned that alcohol consumption is slightly higher in women.

Furthermore, Martínez *et al.* (2020) conducted a study to identify risk factors for alcohol use and strategies for successfully addressing relapse or abuse in a group of adolescents who completed a brief intervention program. Their results showed that most participants (24.7%) presented inadequate knowledge, which improved after the intervention, similar to the present findings.

Alcohol consumption is one of the most important public health problems of our time worldwide. The World Health Organization (WHO) (2018) identifies it as a major risk factor for liver disease, cardiovascular disease, various types of cancer, anemia, sexually transmitted diseases, and sexual dysfunction. It is also the leading cause of trauma due to injury, depression, neuropsychiatric disorders, and malnutrition. Data indicate that approximately 2.3 billion people worldwide are drinkers and that harmful alcohol use is responsible for three million deaths (5.3%) annually worldwide.

Worldwide, the number of people who regularly consume alcoholic beverages increases each year. The reasons for this are diverse, including: a predominance of low educational levels, dysfunctional families, a lack of recreational and cultural options, divorce, domestic violence, loss of esteem for the drinker, and legal and pre-criminal situations, among others. Hence the need for all community stakeholders to contribute with their educational efforts.

Recreational physical activity not only strengthens the body, but also the mind. Learn how recreational physical activity is a powerful tool to prevent tobacco, alcohol, and other substance use and also supports emotional well-being. The age of first drinking varies widely internationally, ranging from 11 to 15 years depending on the country. In Spain, 30.1% of young people who have tried alcohol did so at age 13 or even younger. Moreno *et al.* (2022).

According to World Health Organization (WHO) (2014) and Díaz (2018), according to the World Health Organization (WHO), alcohol use and abuse is part of the government's health agenda; since it is a causal factor in more than 200 diseases and injuries. In addition, it is associated with the risk of suffering from mental and behavioral illnesses, including alcohol dependence, non-communicable diseases such as cardiovascular diseases, liver cirrhosis, some types of neoplasia, and trauma resulting from violence and traffic accidents. It is also considered a public health problem of great social significance, since it is estimated that 320,000 deaths of adolescents between the ages of 15 and 29 occur each year worldwide due to alcohol consumption.

Recreational activities provide significant benefits for all ages, but this research will focus on adolescents who consume alcohol and use their free time and the need for recreational physical activity to reduce their alcohol consumption.

The learning that comes from enjoying these activities in one's free time is of utmost importance, since they can stay motivated, because it prevents falling into a sedentary lifestyle and its diseases such as obesity, stress, hyperactivity. Because they remain in constant movement, which produces an energy expenditure which reduces overweight, it benefits the cardiovascular and respiratory systems, citing the authors Zambrano and Mateo, (2021) where they state that "Due to their great impact on childhood, it is necessary to emphasize that educational games play an important role in the teaching process, and students can better face academic or sporting difficulties to adapt to the environment."

This is in agreement with Díaz *et al.* (2023) when they express that recreation implies a sensitive universe full of complexities and solutions that demands systematic work, nuanced by the exercise of creativity, based on novel activities, characterized by their diversity and educational orientation, from the design and implementation of proposals that stimulate the participation of the subjects, as the main protagonists of this process. (Noslen 2019 and Martínez, *et. al.*, 2022)

Therefore, it is important to engage in recreational physical activities from an early age so that they continue to engage in them spontaneously throughout adolescence. "Educating in leisure time means using free time as a framework for some educational activity. This may or may not be a recreational activity; it may be aimed at developing the individual" (Machado et al. 2018). Research determines the benefits of recreational physical activities for the use of free time among adolescents with alcoholism.

## ***MATERIALS AND METHODS***

The research is supported by the project: Improving Physical Education, Recreation, and Sports for All in the Province of Holguín.

From a dialectical-materialist approach to the Marxist conception of alcohol consumption in adolescents, methods such as:

Inductive-deductive: allowed for inferences and generalizations regarding the importance of recreational physical activity among adolescent alcoholics. Participant scientific observation: used to conduct the survey to observe adolescents' expressions. Survey: administered to adolescents in the community to assess their current status in recreational physical activity. Interview: allowed the authors to gather relevant information from specialists and stakeholders involved in the research process. Mathematical-statistical methods: allowed for processing the information obtained through empirical methods and techniques.

For the initial diagnosis, the following methodological steps were taken into account:

- Determining indicators to assess adolescents' initial readiness to engage in recreational physical activities in the community.

Selection of instruments, techniques, and methods that provide relevant information on the status of alcohol consumption among adolescents, as well as the problems and needs of each adolescent.

- Development or adaptation of instruments, techniques, and methods to reflect the specific needs of adolescents and the knowledge of community physical activity teachers working in this field.
- Application of the initial diagnosis.
- Processing of the information obtained.
- Integration and interpretation of the results obtained.

- Individual and collective characterization of adolescents who consume alcohol in the community.

The adolescents who consume alcohol and community physical activity teachers participated in the diagnosis. The same was carried out in the CDR 7 of the Tanque community of a population of 26 alcoholic adolescents between the ages of 17 and 20 years old. 16 adolescents were intentionally selected as a sample, representing 61.53%, of which 10 were male for 66.5% and 6 were female for 37.5%.

The following inclusion indicators were taken into account for the research:

- The willingness to join the recreational physical activities program.
- Willingness to contribute to the development of the proposed activities.
- Age between 17 and 20 years.
- Willingness to participate anytime, anywhere.
- Adjust to the requirements of the program.

## ***RESULTS AND DISCUSSION***

Alcohol is a substance that affects the entire body. The consumer's sex, age, and biological characteristics determine the degree of risk they face when consuming alcohol.

Evidence shows that alcohol consumption represents one of the most significant health problems among adolescents; however, for alcohol consumption to occur, there must be a series of reasons that lead to this behavior. Alcoholism has a multicausal etiology, as factors such as family dysfunction, inadequate educational patterns, psychological conflicts, limitations in personal development, lack of information about its risks and consequences, as well as young people's own social perceptions of this health problem appear to influence it.

### *Results of the applied diagnosis*

The deficiencies found are related to behavior, school dropout rates, youth integration into the community, and family problems.

#### a) Magnitude, structure and content of free time:

A valuable tool during the diagnostic process was the time budget study, based on a pilot study of the main self-reported activities of adolescents who consume alcohol. It was found that 39.58% of their time budget is devoted to addiction.

It was found that young people in the community spend their free time sharing with other young people and adults, consuming alcoholic beverages, gambling and other activities that do not benefit the healthy use of their free time (Table 1).

**Table 1.** – Table 1. Time budget trends

NO	Activities they do in their free time	Hours of employment	%
1	Sleeping and eating activities	5.5	22.91
2	Wandering the streets	3.5	14.58
3	Sports activities	2.0	8.33
4	Recreational activities	2.0	8.33
5	Caring for family members	1.5	6.25
6	Drink alcoholic beverages	9, 5	39.58
	TOTALS	24 HOURS	99.98%

From a population of 24 patients in District 117 of the North-City Center People's Council of Holguín, a sample of 16 alcoholic adolescents was intentionally selected. These adolescents were fully aware of their illness, the need for help, and were authorized by their physician to participate in recreational activities. The adolescents had an average age of 17, were male, had a secondary education level, and had been

drinking alcohol for up to three years. Their psychological characteristics included low mood, pessimism, and lack of self-control.

In order to diagnose the readiness of adolescent alcoholics to impact their quality of life through recreational physical activities and to define the research problem and its manifestations, empirical research instruments were selected and applied. These instruments provide the desired information, determine regularities, and provide indicators for determining the level of readiness.

A question-and-answer workshop was held with the adolescents in the research sample to determine their knowledge and affective and volitional aspects to promote recovery through recreational activities. To assess the subjects' knowledge, the following categories were established: good, average, and poor, with the following results obtained after applying the different methods:

In question 1, regarding knowledge of the damage caused by the disease:

(2) adolescents have good knowledge, since they recognize the processes that take place in their organism as a consequence of the disease they suffer and they express it by referring to the negative evolutions in the cardiovascular, nervous, circulatory, and motor systems. (4) adolescents have evaluated knowledge of fair (4) who declare some knowledge and express it in terms such as damage to the systems, shortness of breath, loss of body weight, (8) subjects have poor knowledge, since they only refer to some symptoms such as dizziness, desire to vomit and headache. The remaining adolescents (2) do not respond.

When evaluating the second question that aims to know the knowledge and importance that recreational activities have for adolescents, it was observed that (7) adolescents are good at recognizing in recreational physical activities the improvement in their physical condition in terms of strength and skill, and it increases the resistance of the organism. Five (5) adolescents have regular knowledge about the importance of these activities. Finally, the remaining four (4) adolescents did not respond.

Regarding the motivation for their participation in recreational physical activities, good motivation is seen in (12) adolescents who express that they wish to do so and two (2) adolescents' motivation is regular, since they express that they would sometimes participate and poor one (2) adolescent express that they do not wish to participate.

As for recommended activities in order of priority, they prefer walks, socializing with other communities, hiking, dancing, and passive games.

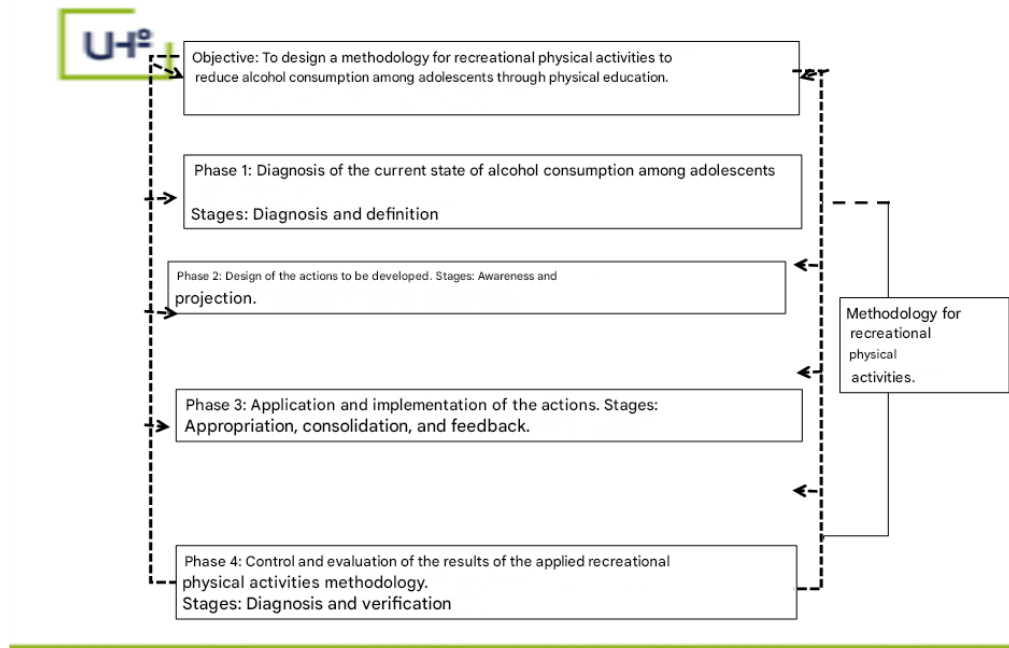
Regarding cognitive indicators, only 26% have good knowledge, 30% have average knowledge, and 64% have poor knowledge. The affective indicator, in general, is expressed in only 36% who have good or average motivation; the rest of the adolescents have poor emotional performance.

The analysis of the data obtained from the initial assessment suggests that adolescents have little understanding of the importance of recreational physical activities with an educational focus to impact their quality of life and reduce alcohol consumption. They do not mention this as a way to occupy their free time, combat stress, improve their health, or share with others.

These regularities confirm the need for a recreational physical activity program with an educational focus to impact the quality of life of adolescents in District 117 of the North-City Center People's Council of Holguín.

The program's proposal, taking into account the characteristics of adolescents with illness, provides a medical diagnosis, describing and explaining the problems in order to understand them, based on the principle of "understanding in order to solve." It begins with the phenomena and proceeds to the essence, relating the most general situations and moving through an orderly investigation process, which is carried out in two stages (Figure 1).

First stage: Detoxification, framed within a period of five months. Second stage: Withdrawal, which lasts for five months.



*Fig. 1.- Program proposal taking into account the characteristics of sick adolescents*

### First phase

In the particular case of the sample studied, it is located in both stages, within which specific criteria are assumed both from the behavioral and psychological point of view, issues that are specifically declared below:

A phase of the alcoholics' illness is observed, which is called crucial or critical, which brings with it a loss of control, rationalizations, neutralization of social pressures, boastful behavior, aggressive behavior, persistent remorse, a period of complete abstinence, withdrawal from friends, resignation from jobs, and drinking becoming the center of activities.

Similarly, there is loss of external interests, change in interpretation of interpersonal relationships, self-pity, geographical escape (hiding, running away), change in family habits, resentments, protection of alcohol supply, malnutrition, first hospitalization, decreased sexual appetite, drinking on an empty stomach.

This phase, the assessment phase, is crucial in the process, as an incorrect diagnosis leads to inadequate treatment and management, so the success of the process depends on this stage. It is facilitated by prior efforts by other practitioners, especially the physician and members of the community group. The contract or agreement with the patient clarifies the team's and the user's capabilities and also represents the first phase of establishing commitments to participate in the program.

- Assessment.
- Medical treatment of the patient.
- Psychological Treatment.
- Treatment by a Physical Culture specialist.

The fact-perceptual and clinical diagnosis demonstrates the need to implement a program to impact the quality of life of alcoholic adolescents in District 117 of the Centro Ciudad Norte People's Council.

- a) Recreational interests and needs.
- b) Recreational infrastructure.
- c) Characteristics of the physical and geographical environment.
- d) Existing recreational offer.

## Phase 2. Design

Aim:

To contribute to influencing the quality of life and raising awareness of the importance of recreational physical activity among young people in the community, the Tanque Centro Ciudad Norte.

Activity 1.

Name: Sports tourism in contact with nature.

Duration: 4 hours.

Goals:

- Receive environmental education .
- Promote interpersonal relationships .
- Raise self-esteem.

Number of activists: 1

Modality: group.

Activity Description: This tour includes a city center tour - Botanical Garden: departing from the Children's Park with a city tour, visiting the Periquera historical site and the natural history museum, continuing to the Mayabe Valley Botanical Garden; a tour of the garden. Recreational activities are included after the tour: a dance competition, board games, a hidden treasure hunt, and an educational talk.

Materials:

- Transportation (bus).
- Board games: Dominoes, Parcheesi, Chess.
- Stereo system.
- Recreational games.
- Awards.

Physical Space: Botanical Garden.

Activity 2 .

Name: Current conferences on alcoholism and drug addiction.

Duration: 35 minutes.

Goals:

- Raise your level.
- Promote interpersonal relationships .
- Raise self-esteem.
- Use your free time.
- Know the damage caused by alcohol consumption.

Number of activists: 2

Modality: group.

Activity description: Organization of a group, class, conference, debate, or workshop with the goal of raising awareness about the harm caused by excessive alcohol and other toxic consumption.

Materials:

- Banners, blackboard and chalk.

Physical Space: Classroom.

Variation: This activity can be linked through a strategic alliance with the family doctor.

Observations:

- Coordinate with health in advance.

### Phase 3. Application

This program will be implemented from June 2024 to February 2025, and its progress will be evaluated for possible improvements in the community.

Aspects to take into account for the implementation of the program:

- Coordinate with the various community factors and INDER to ensure the minimum human and material resources required for the proposed recreational activities.
- Recreational activities will be carried out in the morning and afternoon on alternate days.
- Various community factors will promote and publicize the program's recreational activities.
- A partial evaluation of the program will be conducted in January 2025.

### Phase 4. Evaluation

qualimetric perspective to obtain reliable opinions.

The program evaluation, based on the application of the specialist criterion method, in relation to the different stages of the recreational program's development, as well as to assess its feasibility in district 117 of the Centro Ciudad Norte People's Council of the municipality of Holguín, allowed us to ensure that the program and its component recreational activities are viable for implementation.

Various suggestions and modifications pointed out by the specialists were considered, which allowed us to refine the proposal, its content, and structure.

In evaluating the program design, five experts considered it moderately relevant and two considered it relevant. To improve it, they made the following suggestions:

- The potential of board games should be further exploited as an activity that helps mental processes.
- The possibility of partial evaluations to provide feedback on the progress of activities and carry out improvement actions
- The activities designed for the different games must have uniformity in their methodology, which facilitates their understanding and description.
- Methodological suggestions that take into account the characteristics of users should be considered.

An analysis of the recommendations is conducted, and improvements are determined after consultation with the tutor. These improvements are then submitted to the specialists for review. They determine that the changes made to the program and its activities are appropriate, and the program is approved for implementation with the improvements incorporated into the program by 100% of the specialists.

## *CONCLUSIONS*

Theoretical and methodological shortcomings demonstrate the existence of limitations in the design and implementation of a recreational physical activity program to contribute to the participation of adolescents who consume alcohol in Physical Education classes from a comprehensive and contextualized educational perspective.

This research provided insight into the current state of the problem, and the greatest difficulties stem from the poor habits of young people.

There is potential for adolescents and teachers to achieve positive results in reducing alcohol consumption in the activities they undertake.

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The authors declare no conflicts of interest.

***Authors' contributions:***

The authors have participated in the writing of the work and analysis of the documents.



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