

## Collaborations of research and outreach projects in promoting the health of workers and students

*Colaborações de projetos de pesquisa e extensão na promoção da saúde de trabalhadores e estudantes*  
*Colaboraciones de proyectos de investigación y extensión en la promoción de la salud de trabajadores y estudiantes*

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### Abstract

**Objective:** To map the research and outreach projects of a federal institute focused on health promotion based on the theoretical framework of Health Promoting Universities. **Methods:** This is a documentary research, in which it was mapped, through public consultation to the selection notices, research and outreach projects of a federal institute, effective from 2016 to 2020. A descriptive and interpretive analysis of titles and abstracts was carried out, identifying the projects aimed at health promotion in an institutional environment. **Results:** Eighteen projects were selected, the year with the highest prevalence 2020 and the predominant target audience students and workers. The main aspects of health promotion addressed were: School well-being; Healthy habits; Protagonism in health; and Healthy environments. **Conclusion:** The analyzed institute has projects that bring it closer to the movement of Health Promoting Universities, but it is important to encourage intersectoral and multidisciplinary work approaches and expand academic training in Health Promotion.

**Descriptors:** Health Promotion; School Health Services; Occupational Health; Quality of life.

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### Whats is already known on this?

Education workers are susceptible to numerous health problems, such as psychosomatic and physical illnesses and psychic pathologies. Furthermore, the educational scenario generates illnesses among students.

### What this study adds?

Health promotion projects in institutional environments are aimed at students and workers and address the themes of well-being, healthy habits, protagonism in health and healthy environments.



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### Resumo

**Objetivo:** Mapear projetos de pesquisa e extensão de um instituto federal voltados para a promoção da saúde com base no referencial teórico das Universidades Promotoras da Saúde. **Métodos:** Trata-se de uma pesquisa documental, na qual mapeou-se, por meio de consulta pública a editais de seleção, projetos de pesquisa e extensão de um instituto federal, com vigência no período de 2016 a 2020. Realizou-se análise descritiva e interpretativa de títulos e resumos, identificando os projetos voltados para promoção da saúde em ambiente institucional. **Resultados:** Selecionou-se 18 projetos, sendo o ano com maior prevalência 2020 e o público-alvo predominante estudantes e trabalhadores. Os principais aspectos de promoção da saúde abordados foram: Bem-estar escolar; Hábitos saudáveis; Protagonismo em saúde; e Ambientes saudáveis. **Conclusão:** O instituto analisado possui projetos que o aproxima do movimento das Universidades Promotoras da Saúde, porém é importante incentivar abordagens de trabalho intersectoriais e multidisciplinares e ampliar a capacitação e a formação acadêmica em Promoção da Saúde.

**Descritores:** Promoção da saúde; Serviços de Saúde Escolar; Saúde do trabalhador; Qualidade de vida.

### Resumen

**Objetivo:** Mapear proyectos de investigación y extensión de un instituto federal orientados a la promoción de la salud a partir del referencial teórico de las Universidades Promotoras de Salud. **Métodos:** Se trata de una investigación documental, en la que se mapearon proyectos de investigación y extensión de un instituto federal, vigentes de 2016 a 2020, mediante consulta pública a las convocatorias de selección. Se realizó un análisis descriptivo e interpretación de títulos y resúmenes, identificando proyectos dirigidos a la promoción de la salud en un ámbito institucional. **Resultados:** Se seleccionaron 18 proyectos, siendo el año de mayor prevalencia el 2020 y el público objetivo predominante siendo estudiantes y trabajadores. Los principales aspectos de la promoción de la salud abordados fueron: Bienestar escolar; Hábitos saludables; Protagonismo en salud; y Ambientes saludables. **Conclusión:** El instituto analizado tiene proyectos que lo acercan al movimiento de Universidades Promotoras de Salud, pero es importante incentivar abordajes de trabajo intersectoriales y multidisciplinares y ampliar la capacitación y formación académica en Promoción de la Salud.

**Descritores:** Promoción de la salud; Servicios de Salud Escolar; Salud del trabajador; Calidad de vida.

## INTRODUCTION

One of the main devices for monitoring the health of workers throughout the country is worker health surveillance, whose main objectives are the promotion of health and the reduction of morbidity and mortality and risks and vulnerabilities of the working population, through the integration of actions that intervene in diseases and their determinants arising from development models and production processes.<sup>(1)</sup>

Although worker health surveillance is essential for the continuous assessment of workers' health status, not all work scenarios have specific policies for health promotion and one of these visible gaps in care and monitoring is the school environment. In recent research, it was possible to observe that teachers are susceptible to numerous health problems, in which psychosomatic illnesses, psychic pathologies and physical illnesses are mentioned as the most prevalent.<sup>(2-3)</sup> However, it was observed that the studies are concentrated in teachers of higher education, and research with teachers of elementary, secondary and technical education or with administrative technicians occur in fewer numbers.

It is important to emphasize that the educational scenario is also a generator of student illness<sup>(4)</sup>, because the school exerts a strong influence on the formation of the social individual and the construction of collective experiences. However, individuals are subject to many lapping to fit into the mold of an academic life, which can affect their health conditions and compromise their quality of life.<sup>(5-7)</sup> Studies qualify the university space as an enhancer of pathologies, especially those linked to psychic dysfunctions, such as stress, anxiety and depression.<sup>(5-6,8)</sup> However, it was noted again that research is condensed in university students and professors, while the literature still lacks information on students and workers in elementary and secondary education.

In this way, the health status of professors and students reiterates the need for intervention actions within the academic environment, since such action would spread quality of life to different audiences and age groups. In this sense, health promotion is understood as a set of strategies and ways to produce and enhance health, aiming to meet the social needs of health, well-being and the improvement of quality of life, considering individual and collective specificities.<sup>(9-10)</sup> In the school environment, health promotion, in addition to stimulating the well-being of workers and students, can collaborate with interpersonal relationships, autonomy and self-esteem.<sup>(11-12)</sup>

There are movements and proposals for intervention in health promotion in educational institutions, such as Healthy Schools, currently, Health Promoting Schools, and their dissemination to the university environment, through Health Promoting Universities (HPU).<sup>(13)</sup>

Health Promoting Universities aim to incorporate healthy and oriented practices in the principles of health promotion in the university environment, with emphasis on worker health, as well as that of students and the entire organizational body, never forgetting, however, the aspect of worker health

surveillance.<sup>(13)</sup> The aspects that permeate a school environment and directly affect the quality of life are addressed, such as structural issues and the provision of health services and health education actions. This movement intends to expand its actions to other scenarios, which may include different teaching modalities.<sup>(14)</sup>

A health promoting institution must ensure compliance with several requirements, including influencing the organizational culture, structures and practices, creating a healthy teaching/learning context; promote the well-being of employees; and develop students' personal and social responsibility, increasing the potential for health and social well-being.<sup>(14)</sup>

In Brazil, an educational network that includes different levels of education is the Federal Institutes of Education, Science and Technology, which offer professional and technological public education. These institutes have research and outreach projects, which can address several areas, including health.

In this sense, this study defines as objective map the research and outreach projects of a federal institute dedicated to the health promotion based on the theoretical framework of the Health Promoting Universities.

## METHODS

It is about a documentary research whose main characteristic is to investigate materials that never received scientific analytical treatment, such as reports, projects, photographs, minutes, among other materials.<sup>(15)</sup> The documents analyzed in this research are research and outreach projects linked to a federal institute.

The research setting was a Federal Institute of Education, Science and Technology located in the state of Rio de Janeiro/Brazil. This institute has 12 campuses, in which integrated technical courses are offered, concomitant or subsequent to high school for young people and adults, undergraduate, graduate and professional qualification courses.<sup>(16)</sup>

To carry out the mapping of projects aimed at health promotion, the results of notices promoted by the Institute in focus were analyzed. The criteria for inclusion of the notices were: being a notice for selection of research and outreach projects, notice for renewal of projects, notice for granting scholarships and notice for Young Talents; be valid for the period from 2016 to 2020.

In addition, inclusion and exclusion criteria were applied to select the projects, being established as inclusion criteria: projects in the health area. Regarding the exclusion criteria, it was defined: inaccessibility of the abstract of the project; projects that are not related to health promotion and health promotion in an institutional environment.

Data collection was carried out in July 2021, through a public consultation on the Selection portal of the federal institute analyzed - Research and Outreach Programs and Projects tab and in the Digital Documentation Center (DDC) - Notices tab.

The selection of projects followed a three-stage script. First, the titles of the projects present in the notices were analyzed, selecting those that had the theme of the health area. Next, a table was organized with the following variables: title, campus, notice, period of validity, scholarship granted and renewal status.

In the second stage, the abstracts of the projects selected in the first stage were analyzed in order to confirm their inclusion in the health theme. For access to the abstracts of the projects, the Portal of the federal institute and, via e-mail, the directors of research and outreach activities of the campuses involved and the coordinators of the selected projects were consulted. Projects with inaccessibility of the abstract were excluded from the research. Soon after, the projects were classified into health promotion and health promotion in an institutional environment, that is, health promotion projects aimed at workers and students of the institute in question. The result of this stage is shown in figure 1.

In the third stage, there was a descriptive and interpretive analysis of research and outreach projects aimed at health promotion in an institutional environment, investigating the relationship with the guiding components of Health Promoting Universities. These components are organized into areas of action, namely: development of regulations and institutional policies to promote a university culture and an environment favorable to health; development of health education actions; comprehensive provision of social, medical and health services; training and academic education in Health Promotion; development of associations, alliances and health networks for university students; health-friendly environment in campus; and development of health research.<sup>(14)</sup>

This research, which follows the ethical determinations of research, <sup>(17)</sup> was approved by the Research Ethics Committee (REC) of the Federal Institute of Education, Science and Technology of Rio de Janeiro (IFRJ), through opinion number 4,865,784 and CAAE number 44999621.1.0000.5268.

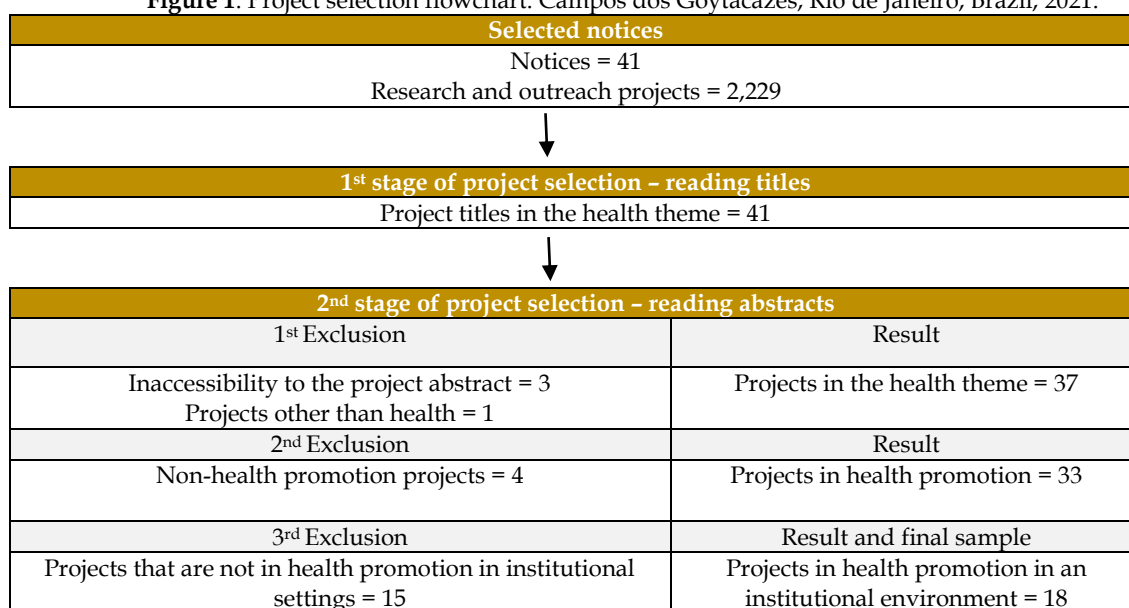
## RESULTS

In the first stage of the research, a total of 41 notices and 2,229 project titles were analyzed, selecting 41 projects focused on the health theme, 15 of which were research projects and 26 were outreach projects.

Soon after, in the second stage, the abstracts of the projects were analyzed in order to confirm the insertion in the health theme, which resulted in the exclusion of 01 project. In addition, it was not possible to access 03 abstracts, and these projects were excluded from the sample, thus totaling 37 documents.

Then, also by reading the abstracts, the projects were classified as health promotion and health promotion in an institutional environment, as shown in figure 1. Of the 37 projects, 04 did not qualify as health promotion and 15 were not focused on the institutional environment, ending in a show of 18 projects.

**Figure 1.** Project selection flowchart. Campos dos Goytacazes, Rio de Janeiro, Brazil, 2021.



Source: authors (2022).

The final sample allowed identifying that health promotion projects aimed at the institutional environment include the rectory and 8 campuses, of the 12 existing ones. There are 5 research projects and 13 outreach projects, the year with the highest prevalence was 2020 and the predominant target audience was students and workers.

In the third stage of the study, the descriptive and interpretive analysis of health promotion projects in institutional settings was carried out, identifying their relationship with the guiding components of Health Promoting Universities. From this, the identified actions were categorized into: School well-being; Healthy habits; Protagonism in health; and Healthy environments. The categories were organized in box 1, which also presents the objective, modality, target audience and year of each project.

**Box 1.** Categorization of selected projects. Campos dos Goytacazes, Rio de Janeiro, Brazil, 2021.

Category 1: School well-being			
Project objective	Modality	Target audience	Year
Understand the strategies built among students, in the social space of the campus, that favor both the constitution of the nature of happiness and subjective well-being, as well as the involvement and permanence of students	Research	Students	2020

Investigate, through forms, interviews and observation, which factors contribute to the quality of life of campus students, as well as the factors that negatively influence	Research	Students	2020
Monitor the implementation of the National School Feeding Program (PNAE)	Outreach	Students	2019
<b>Category 2: Healthy habits</b>			
Monitor the Body Mass Index (BMI), the percentage of fat and lean mass of the students and monitor their diet, wakefulness/sleep and physical activity practices	Research	Students	2019
Monitor BMI, percentage of fat and lean mass of students and monitor in relation to food, wakefulness/sleep and physical activity practices	Research	Students	2017
Analyze the relationship between livestock production and speciesist and meat-based food culture, from three fundamental fronts: the ethical issue, the issue of human health and the environmental issue	Research	Students and workers	2019
Promote food education strategies aimed at the juvenile public and contribute to the valorization of food production activity	Outreach	Students	2020
Create a street running and walking group with the purpose of motivating and assisting the practice of these sports modalities	Outreach	students and workers	2020
Offer stretching exercise practices, through asynchronous virtual tools, in the context of the COVID-19 pandemic	Outreach	students and workers	2020
Offer pilates classes through virtual tools in the context of the COVID-19 pandemic	Outreach	Students and workers	2020
Offer physical exercise practices and health tips, from asynchronous virtual tools, in the context of the COVID-19 pandemic	Outreach	Students and workers	2020
Offer physical activity practices, through virtual tools, in the context of the COVID-19 pandemic	Outreach	students and workers	2020
Integrate physical activities into the routine of the Institution's workers through actions that involve a dynamics of exercises to be carried out throughout the workday	Outreach	Workers	2018
Outsource knowledge and actions on chemical dependency today	Outreach	Students and workers	2016
<b>Category 3: Protagonism in health</b>			
Promote health education in order to allow adolescents to become critical and develop a healthy posture	Outreach	Students	2019
Foster preventive actions in health education from the young person's own worldview	Outreach	Students	2018
<b>Category 4: Healthy environments</b>			
Produce seedlings of various species of fruit trees for donation at IFF events	Outreach	Students and workers	2020
Carry out an ethnobotanical survey of medicinal species in backyards in the municipality of Cambuci, RJ	Outreach	Students and workers	2019

Source: authors (2022).

## DISCUSSION

The concept of HPU includes attention to the well-being of students and workers.<sup>(14)</sup> In this sense, two selected projects investigated the factors that interfere with the well-being and quality of life of students, one of which analyzed the strategies related to well-being created by students to learn and stay in school. In addition, a third project accompanied the execution of the PNAE, ensuring adequate school feeding. The quality of academic activities, the environment and infrastructure of the place and especially interpersonal relationships are key factors for school well-being. Therefore, these aspects must be constantly observed by educational institutions, in order to promote a harmonious and favorable environment for learning.<sup>(18)</sup>

In relation to the healthy habits category, projects focused on eating were identified, with the promotion of appropriate and sustainable eating practices for young people, investigation of possible damage to health from the consumption of meat and its derivatives and monitoring of BMI and guidelines regarding nutrition, wakefulness/sleep pattern and physical exercise practices for overweight students. The projects stimulate healthy and conscious eating among young people, a public that presents significant rates of obesity, eating disorders and chronic diseases, especially associated with inadequate eating habits and sedentary lifestyle.<sup>(19-20)</sup> An example is the intense consumption of ultra-processed foods by children and adolescents and its relationship with the development of dyslipidemia.<sup>(21)</sup> Therefore, it is essential to stimulate healthy eating habits among adolescents, with school being a favorable setting for such activities, since it is a learning and transformation environment.

Physical exercise is a fundamental aspect for the promotion of healthy habits. The projects organize street running and walking groups, work gymnastics and stretching activities, Pilates and other physical exercises through virtual tools and thus encourage students, workers and the external community to become/keep physically active. Performing physical exercise programs at work has positive results on health and quality of life, in addition to reducing absenteeism and increasing work capacity and productivity.<sup>(22)</sup> In addition, identifying opportunities for inclusion of health promotion in work and life environments, such as school, is a fundamental aspect to encourage participation and adherence to such practices.<sup>(23)</sup>

Of the projects mentioned above, four were developed during the Covid-19 pandemic, which used virtual tools to encourage the reduction of sedentary lifestyle. One of the conducts to contain the spread of Covid-19 is social isolation and, therefore, several people began to carry out their activities at home, which led to an increase in physical inactivity, sedentary behavior and musculoskeletal complications.<sup>(24-25)</sup> In this way, these projects collaborated in stimulating the practice of physical exercises during the pandemic period.

This result highlights the ability of educational institutions to provide health promotion actions beyond the school environment, demonstrating a rapid adaptation in offering health care to students and workers during the pandemic. In addition, it corroborates the contribution of research and outreach activities in dealing with public emergencies. Therefore, several scientific and outreach practices were organized during the pandemic, such as, for example, an educational institution in Mexico that implemented strategies to promote the emotional stability of members of the educational community, seeking to prepare teachers for the challenges of the pandemic.<sup>(26)</sup>

It was observed that most of the selected projects use health education as a methodological resource, which is one of the areas of action of HPU.<sup>(14)</sup> Health education can be used to promote life skills and leadership in student health and in this sense, two projects stood out and were categorized as leading roles in health. These encouraged students to participate in health processes in order to adopt healthy behaviors more critically and actively exercise their citizenship.

In the healthy environments category, the projects encouraged the school community to grow fruit trees and medicinal plants, and in one of the experiences a medicinal garden was created. Offering green spaces in the school environment meets the objectives of the HPU movement, since such actions provide a favorable environment for health in the campus.<sup>(14)</sup> In addition, studies indicate an association between actions of contact with nature and health promotion, pointing to stress control, increased oxygen saturation and reduced heart rate, blood pressure and depressive signs<sup>(27-28)</sup>

After analyzing the results, it was identified that this research contributes to the reflection on the potential of educational institutions to develop health promotion strategies based on the theoretical framework of HPU, and also contributes to improve the health of teaching workers and students.

The diagnosis evidenced in this study is essential to demonstrate the impact of research and outreach projects on the organizational planning of educational institutions. It is essentially through these devices that health promotion practices are implemented in the institutional environment, thus transforming it into a scenario of health maintenance and protection.

This study is relevant for the health area, especially for nursing, since it has in its scope of action, the performance of health promotion activities at the individual and collective levels and the projects identified in this investigation can help in the construction of healthy practices.

It is worth mentioning that the presence of qualified nurses for workers and students in the school setting provides practices for health education that favor the construction of precise routines in health

promotion, such as: achieving the goal of reducing the prevalence of diseases and increase of strategies that form habits and healthy postures.<sup>(29)</sup>

Finally, the limitation of the study is the restriction of information present in the abstracts of some of the selected projects, which hindered the in-depth analysis of the relationship between the objective of these projects and the promotion of health in an institutional environment and the guiding components of HPU.

## CONCLUSION

It is concluded that the analyzed federal institute has research and outreach projects that bring it closer to the HPU movement, since it acts with themes of well-being, healthy habits, protagonism in health and healthy environments. However, it is noteworthy that health promotion projects in institutional environments are not identified in all campuses, thus, there is a need to discuss the relevance of health promotion actions with the academic community.

To bring the institute even closer to the HPU movement, it is important to encourage the development of projects with intersectoral and multidisciplinary work approaches, thus promoting collective participation in the construction of school environments favorable to health. In addition, expand academic training in Health Promotion.

It is suggested that new studies be developed in order to map the other health promotion strategies aimed at the workers and students of the institute in question, such as outreach courses and health services. In this way, it will be possible to recognize the health support network aimed at promoting health in its entirety and collaborating in improving the quality of life of those involved.

## CONTRIBUTIONS

Contributed to the conception or design of the study/research: Alves LVV, Faria MGA. Contributed to data collection: Alves LVV, Seabra ABPO. Contributed to the analysis and/or interpretation of data: Alves LVV, Seabra ABPO, Faria MGA. Contributed to article writing or critical review: Alves LVV, Seabra ABPO, Faria MGA, Ferreira RE. Final approval of the version to be published: Alves LVV, Seabra ABPO, Faria MGA, Ferreira RE.

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