

# Use of app built for STI prevention among public school students: Experience report

Uso de app construído para prevenção de IST em escola pública: Relato de experiência

Uso de app construída prevención de ITS entre estudiantes de escuelas públicas: Relato de experiencia

## RESUMO

Trata-se de relato de experiência vivenciado em escola pública universitária de Niterói- RJ, onde foram desenvolvidas ações de educação em saúde relacionadas à criação de um aplicativo para celular sobre educação sexual para adolescentes. Objetivo: descrever a prática de educação sexual para os alunos do ensino médio, através do uso de aplicativo móvel, de uma escola pública universitária em Niterói- RJ. Método: estudo descritivo do tipo relato de experiência acerca da apresentação de aplicativo móvel sobre educação sexual para adolescentes e as percepções dos criadores, na prática de educação em saúde. Resultados: os estudantes apreciaram o material e demonstraram interesse, referiram que o Prev-IST se configura como uma importante ferramenta tecnológica de ajuda aos jovens, face às dúvidas. Conclusão: a atividade de promoção da saúde através da educação sexual mediada pelo app se apresentou como satisfatória para os estudantes, evidenciando assim, a relevância da intersectorialidade nas ações em saúde.

**DESCRIPTORES:** Aplicativos móveis; Educação Sexual; Tecnologia da informação em saúde; Enfermagem.

## ABSTRACT

This is a report of an experience lived in a public university school in Niterói - RJ, where health education actions were developed related to the creation of a mobile application on sexual education for adolescents. Objective: to describe the practice of sex education for high school students, through the use of a mobile application, at a public university school in Niterói-RJ. Method: this is a descriptive study of the experience report type about the presentation of a mobile application on sex education for teenagers. Results: the students appreciated the material and showed interest, they mentioned that the Prev-IST is configured as an important technological tool to help young people, given the doubts presented. Conclusion: the health promotion activity through sex education mediated by app was satisfactory for the students, thus evidencing the relevance of intersectoriality in health actions.

**DESCRIPTORS:** Mobile applications; Sex Education; Health information technology; Nursing.

## RESUMEN

Este es un relato de una experiencia vivida en una escuela universitaria pública de Niterói- RJ, donde se desarrollaron acciones de educación en salud relacionadas con la creación de una aplicación móvil sobre educación sexual. Objetivo: describir la práctica de la educación sexual para estudiantes de secundaria, a través del uso de una aplicación móvil, en una escuela universitaria pública en Niterói-RJ. Método: estudio descriptivo del tipo relato de experiencia sobre la presentación de una aplicación móvil sobre educación sexual para adolescentes y las percepciones de los creadores en la práctica de la educación en salud. Resultados: los estudiantes apreciaron el material y mostraron interés, mencionaron que Prev-IST es una herramienta tecnológica importante para ayudar a los jóvenes. Conclusión: la actividad de promoción de la salud a través de la educación sexual mediada por la aplicación fue satisfactoria para los estudiantes, evidenciando así la relevancia de la intersectorialidad.

**DESCRIPTORES:** Aplicaciones Móviles; Educación Sexual; Informática Médica; Enfermería.

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**INTRODUÇÃO**

**H**ealth promotion, through a comprehensive dialogue, assumes the broad concept of health guiding discussions on quality of life, bringing social mobilization as a participatory force in problem solving. Therefore, this conceptual field works with the principle of individual autonomy, thus reinforcing local and community power.<sup>1</sup>

This paradigm dialogues with several sectors so that it can be consolidated, among which, the orderly action of the Government with the areas of health, education, economy, industry, media and local authorities. The strategies established can be used in a permanent process of education and health promotion, impacting on the improvement of social determinants.<sup>2</sup>

To achieve these objectives, health promotion is used in systematic processes, such as health education, which consists of a continuous and permanent method that aims at the formation of the critical conscience of the citizen. This methodology, through its practices, encourages the search for the collective resolution of problems experienced through the exerci-

se of social control.<sup>2</sup> These strategies are present in health promotion and education programs in the country.

Established in 2007, the Programa Saúde na Escola (PSE) was established as a health and education policy aimed at children, adolescents, youth and adults in public education. This project came to strengthen and develop actions for the participation of the school community, in activities articulated with health, thus recognizing the school as a privileged place for the practices of health promotion and prevention of injuries and diseases.<sup>3</sup>

The PSE presents itself as an essential and timely space for learning, discussing and developing health promotion activities. Due to these characteristics, this program puts the school in a position of innovation in the context of producing citizenship, empowerment and changing the social determinants of health. The use of technological resources, in this context, can boost the objectives proposed by this policy within the school environment.<sup>4</sup>

When approaching the idea of using apps in health, the dynamics of intersectoriality come to mind, which occurs at different levels and between different

spheres. The rhetoric of collaboration argues that actors are equal, that is, they have equal power to collaborate.<sup>5</sup> With this, it becomes essential to observe the demands of users and report the steps and experiences that aim to bring information to the population, with a view to promoting health, based on science.

Health promotion and education practices also underwent changes through the use of technologies in their actions, thus allowing for the strengthening and expansion of these health-related educational measures.<sup>6</sup> With the advancement of this sector, the use of smartphones as an ally to these activities, through mobile applications (app), allowed for a greater dissemination of information, thus favoring the self-care process.<sup>7</sup> Thus, this study aims to answer how the experience of health education with the use of an app in a public school took place.

From this perspective, this study aimed to describe the practice of sex education for high school students, through the use of a mobile application, at a public university school in Niterói-RJ.

The introduction of digital technologies in the habits of the population, influences the emergence of new configura-

rations in the relationship with teaching and learning in different perspectives, including in the health area.<sup>8</sup> The advancement of the information and communication technologies (ICTs) sector, the use of smartphones as a tool allied to Health Education actions, allowed for a greater dissemination of information, thus favoring the self-care process.<sup>7</sup> These characteristics, amplified due to the COVID-19 pandemic.

It is undeniable the transformations caused worldwide, after the discovery of the new virus, called SARS-CoV-2, which causes the covid-19 disease and characterized in March 2020, by the World Health Organization (WHO), as a pandemic.<sup>9</sup> These changes were also expressed in education, in which face-to-face classes were replaced by remote classes during the pandemic period, altering the teaching-learning process and expanding the use of ICTs.<sup>10</sup>

Health education practices, which have a multidisciplinary character, also underwent these changes through the use of ICTs, thus allowing the strengthening of these educational measures related to health.<sup>6</sup> These activities aim to promote debate environments, thus contributing to the decision-making of these individuals. In addition, these actions have the nurse as the essential health professional to reduce the vulnerability of exposure presented by the target audience, directly influencing their approach to health services.<sup>11, 12, 13</sup>

## METHOD

The present research uses a descriptive, exploratory methodology, with a qualitative approach, of the type of experience report about the application of desktop and mobile format application, for adolescents, carried out in a public school in the city of Niterói/ Rio de Janeiro. This method considers the experiences for the formation of knowledge in different themes, which can help in health practice.<sup>14</sup> The work describes the activities carried out to promote the health of young pe-

ople with a focus on the topic of sexual health aided by technologies. As it is a report of the authors' impressions and experiences, this study was not approved and/or submitted to a research ethics committee.

The execution at the educational institution took place, during the first semester of 2022, by an academic from the tenth period of the undergraduate nursing course. The school serves basic education classes, with activities being promoted in the field for high school students. The practice was supervised by teachers and the topics covered were the use of Prev-IST as a health education tool, as well as its thematic axes: STIs; combined prevention; puberty; contraceptive methods and sexual violence.

With this, the project consisted of exposing and discussing the theme, in a way that favored horizontality, everyone's understanding, and the possibility of greater interaction and learning by all parties involved. Through open spaces for debate, we sought to promote health education, with accessible language, and with the help of technologies. Approximately 20 adolescents participated in this activity.

This study, for involving the perceptions of the authors, and for the absence of testimonies, speeches, or collection of personal information, waived the authorization of approval of the ethics in research committee. As it is a report, some steps of how the planning and preparation for the interaction took place are described in the results.

## RESULTS

In December 2021, the first contact took place with the high school coordinator, who, after receiving an explanation of the purpose of the activity, requested a return in February for discussion at the teachers' meeting with the purpose of allocation in the timetable. In May 2022, a meeting took place, through the Google Meet platform, with the nurse and doctor of the outpatient clinic/health service of

the college, in order to explain the action and help in the mediation with the teachers, regarding the availability of class schedules.

One week after the meeting, the physical education teacher provided the necessary class time for the application of the health education activity with the students of high school class 3001. The meeting took place in the classroom, with the presence of the teacher, and a free dynamic was adopted where students could present their doubts, without using the traditional model of slide projection. The material used was the availability of the QR code to access the application, as well as an electronic address for those who did not have this technological resource, at that moment they could access it from home (figure 1) (<https://previst.netlify.app>).

At the beginning of the action, the students showed resistance to the practice of health education, considering that they would miss the physical activities offered by the teacher's class. However, after the introduction of the theme, they seemed to show great interest, and the importance of the discussion on sexual health was debated, in which points such as STI pre-

Figure 1: QR code to access the app.



Source: survey data, 2022.

vention, early pregnancy, correct use of condoms and detection of cases of sexual abuse were pointed out by the students.

The activity showed greater adherence of students to the access method through the QR code due to its practicality, in addition, the coloring of the app was explained, being characterized as harmonic. The images used in the different sections of Prev-IST were also highlighted among the comments of the class, being classified as satisfactory compared to those used in textbooks. Time was given for students to access the content of the resource, in which they reported that the topics present are relevant for discussion, thus generating greater interaction between the class and the health promotion activity.

The interaction of young people with this technology, during the health promotion activity, generated a moment of discussion and questioning, in which questions appeared about the symptoms of infection by the human immunodeficiency virus (HIV), as well as its difference in relation to the aids. In addition, some students asked about syphilis symptoms and prevention, prevention methods in female same-sex relationships, the difference between HIV pre-exposure prophylaxis (PrEp) and HIV post-exposure prophylaxis (PEP), as well as your target audience, and the risks of constant use of the morning-after pill.

The language used during the health promotion activity, characterized as education in the dialogic model, as well as the language available in the Prev-IST content, were praised by the students, being classified as easy to understand, in a direct way free of taboos. This characteristic facilitated communication with adolescents, according to some statements, mainly because some mentioned difficulties of their families in approaching these themes, having their wishes and questions neglected.

Finally, young people reported that they liked the activity and how the theme was exposed, as generally, contact with the theme occurred only through biology books. In addition, they approved the

college's decision to provide space for the execution and discussion of this sex education activity, being asked to return with more works of this type. The students also mentioned that Prev-IST is an important technological tool to help young people in the face of doubts on the subject (figure 2).

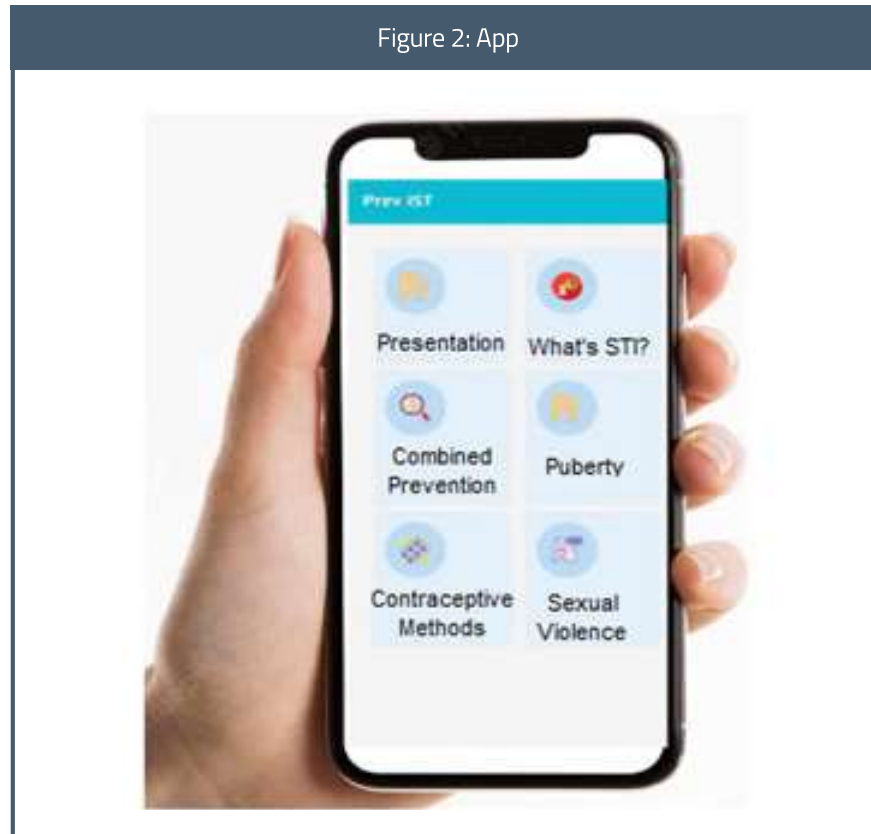
## DISCUSSION

Sexual rights recognized by law guarantee individuals the right to seek a safe and satisfying sex life, as well as access to sex education, information about sexuality and sexual and reproductive health services. Sexual education, a factor that ratifies these rights, is configured as an educational model that is understood as an intersection of different areas of the individual's experience, not necessarily being correlated to the presence or absence of an STI.<sup>15</sup>

Sexual education added to health promotion actions, a process in which the improvement of well-being takes place through sociocultural and biological factors, becomes favorable to the participants by promoting the ideal of self-care, allowing taboo-free activities for an effective exchange of information to occur.<sup>16</sup> These activities, which should be stimulated and expanded in schools, through health education activities built from the prior knowledge of their target audience, as done in this report, thus strengthening the dialogic model and listening to the demands of young people.

Actions aimed at sex education in schools must be continuous and must not be threatening, as they can lead to the distancing of this public. In this sense, this distance can generate misunderstanding about the purpose of this activity in that space.<sup>17</sup> It is necessary the integrality of different sectors, such as the family, the

Figure 2: App



Fonte: dados da pesquisa, 2022.

school and the health network, to constitute a process capable of generating a change in positioning and posture through critical reflection.<sup>18</sup> In this school, the presence of a ward in a teaching environment favors this perspective, and adds to the ideals proposed by the PSE.

The school environment, when guided by health education practices, mediated by professionals in the area, favors the empowerment and decision-making of young people based on reflections and critical thoughts. In this scenario, the implementation of sex education enables empowerment, in the face of safe sexual behavior, and can reduce the rates of STI chaos in this group.<sup>19</sup>

As an instrument capable of generating this change, health education has been portrayed as the main tool in the strategy of health promotion and disease prevention in schools.<sup>20</sup> The application of this educational concept based on the dialogic model favors the participation and shared construction of knowledge, with the educator as a facilitator of the process, observing the knowledge of his target audience.<sup>21</sup> Educational technological production presents itself as a potential tool in health promotion practices, allowing adolescents to become protagonists of their actions, thus promoting active participation in the process of building healthy habits.<sup>22</sup> The use of apps is configured as a current strategy that meets the characteristics of the dialogic model, with the participation of adolescents in the improvement of Prev-IST, as well as interaction and dissemination of subjects of interest to the group.

The use of apps, in the context of health education, can contribute to relevant results in the monitoring and control of risk factors in patients with chronic diseases, in addition to encouraging the integration of the family in the health recovery process.<sup>23</sup> Other authors also highlight the benefits of associating these technologies with health practices, as they describe users' greater understanding of treatments and better accessibility to information when these processes

are mediated by technologies.<sup>6</sup>

These ideals are in line with the ideal of health promotion, in which the empowerment and tra

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ining of the population provide individuals capable of exercising better control over their health and decision-making, directly impacting the improvement of quality of life.<sup>24</sup> Therefore, it is up to health professionals to defend the expansion

of this concept in their work practices.

From this perspective, it is up to nursing to locate itself in the face of this integrality of the different sectors, being the school, health, family and technologies, in the process of building health education. In the school environment, nurses have the ability to identify predisposing factors to diseases, thus being able to work on the adoption of healthy behaviors.<sup>25</sup> Therefore, the importance of introducing nurses into schools becomes perceptible, as a way of training and promoting the autonomy of adolescents in terms of their health promotion.<sup>16</sup>

## CONCLUSION

Therefore, the study points to the relevance of the integrality of technologies, with the health and education sector in education and health promotion activities. It is understood that these tools favor the work of health professionals, as well as bring benefits to adolescents, their families and education professionals.

However, this study expresses the need to create school subjects focused on health practices, thus, health promotion actions will not be restricted and allocated to schedules provided by other professors.

The "Prev-IST" application was considered by the students as a useful tool in approaching the theme, serving effectively in health education activities, as well as a quick and accessible guide for young people on their mobile devices and computers.

Therefore, the nurse is configured as a professional capable of reflecting on social reality and proposing transformative actions. It also promotes recognition of the problems faced, and autonomy in decision-making, through health promotion activities.

It is suggested that new studies, technologies and practices to promote sexual health be encouraged, favoring the strengthening of spaces related to interaction with adolescents.

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