MOVIMENTO
ISSN: 1982-8918

ORIGINAL ARTICLES

WHAT IS NEEDED TO PROMOTE PHYSICAL ACTIVITY IN A SECONDARY SCHOOL? A QUALITATIVE STUDY

O QUE É NECESSÁRIO PARA PROMOVER A ATIVIDADE FÍSICA EM UMA ESCOLA DE ENSINO MÉDIO? UM ESTUDO QUALITATIVO

¿QUÉ SE NECESITA PARA PROMOVER LA ACTIVIDAD FÍSICA EN UNA ESCUELA SECUNDARIA? UN ESTUDIO CUALITATIVO

https://doi.org/10.22456/1982-8918.130358

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Abstract: Interventions are required to modify physical activity behaviours in adolescents, and in this regard, education-based actions seem to be effective. The aim of this study was to explore the beliefs and perceptions of the context stakeholders with respect to adolescents' health behaviours, as well as intervention programmes to gain insight into the setting where the implementation of an intervention is required. Three focus groups were created with twenty-two participants (nine adolescents, four parents, six teachers, and three local politicians). The educational context, in collaboration with the community, was perceived as a setting with high a potential for physical activity promotion. Engagement and coordination of all stakeholders were considered necessary for a tailored intervention, in addition to programme institutionalization to ensure sustainability. Multilevel intervention with a whole-school and community approach is key to increasing physical activity levels among adolescents.

Keywords: Physical Activity. Adolescents. Secondary School. Psycho-social Intervention.

Received on: Mar. 24, 2023
Approved on: Oct. 16, 2023
Published in: Dec. 11, 2023

1 INTRODUCTION

Adolescence is a key period for the acquisition and consolidation of (positive and negative) health behaviours such as physical activity (PA) or sedentary time (ST) that can last for a lifetime (TELAMA *et al.*, 2014). For this age group, the World Health Organisation (WHO) recommends at least 60 minutes of moderate-to-vigorous PA, limiting ST periods and specifically reducing recreational screen time (CHAPUT *et al.*, 2020). Compliance with these recommendations can lead to: a) at a physical level, improvements in adiposity, various metabolic indices, physical fitness or bone health (ROLLO; ANTSYGINA; TREMBLAY, 2020); b) at a psychological level, improved quality of life and well-being, and reduced stress, depression or anxiety (EDLER *et al.*, 2022); and c) at a cognitive level, improved cognition and higher academic performance (SINGH *et al.*, 2019). However, compliance with these recommendations among adolescents worldwide is far from the desired, with 81% of them not meeting the PA recommendations (GUTHOLD *et al.*, 2020) spending 57% of their leisure time after school sitting or lying down, a lot of this time being spent in front of a screen (ARUNDELL *et al.*, 2016).

There are many design and implementation frameworks to promote PA and reduce ST (TABAK *et al.*, 2012), but one of the reference frameworks with the greatest support in literature is the socio-ecological model – SEM (SALLIS *et al.*, 2006). This model considers that an individual's behaviour cannot be isolated because it is influenced by several social factors at different levels, involving all agents from the individual's environment. Furthermore, the educational setting has been revealed as one of the best contexts for PA promotion (KOHL; COOK, 2013; WATSON *et al.*, 2017) since it is a comprehensive educational context where adolescents spend a large part of their time every day. Moreover, it has the ability to reach all of them through numerous stakeholders and from a variety of settings, with resources for their development (LANGFORD *et al.*, 2015). According to the SEM, the engagement of all school environment stakeholders (i.e., students, families, teachers and politicians) in the intervention programme seems to be an appropriate strategy to achieve positive outcomes (KWAN *et al.*, 2022). Thus, this approach is linked to international policy strategies that offer a whole-school approach by working collectively with adolescents, families and the community to strengthen and support health-promoting and learning behaviours in and out of school (WHO, 2021; SHE, 2019). Nonetheless, interventions aimed at improving these behaviours in schools are not proving to be effective due to the lack of knowledge of the complexity of the environment in which they take place. It is necessary to better understand and further optimize the implementation processes of these complex interventions in every context. (LOVE; ADAMS; VAN SLUIJS, 2019). In addition to ensuring that these interventions are effective, their effects need to be sustained over time (CRANE *et al.*, 2022) because a lot of programmes are discontinued soon after the initial funding ends (WALUGEMBE *et al.*, 2019). Although previous studies have addressed the effectiveness of PA interventions, very few have reported data on their sustainability (HERLITZ *et al.*, 2020).

The design of effective and sustainable intervention programmes based on this framework must start by identifying the needs of the individuals who will participate in them (CZOSNEK *et al.*, 2022). Thanks to this previous step, an intervention that is more suitable to the participants' characteristics can be designed and applied. However, diagnostic studies regarding the complexity of the educational setting are scarce (CARSON; WEBSTER, 2019). Some studies have detected that variables such as peer influence, parenting styles, family socio-economic status, the need for a safe environment, the importance of stakeholder engagement and organization, action interdisciplinarity, and the need for an internal programme leader may generate a behavioural change in students (BERGSTRÖM *et al.*, 2015; CORDER *et al.*, 2015; HAERENS *et al.*, 2010; MURILLO-PARDO *et al.*, 2014). However, to date, there has been limited research on strategies aimed at improving the intervention design and addressing these influencing variables (POWELL *et al.*, 2019). Over the last few years, many interventions have been performed in schools to promote healthy behaviours, but many of them did not consider that schools are highly complex settings with large contextual differences that need to be understood before intervening (KING *et al.*, 2020). Prior to the intervention, it is essential to gain a deep knowledge of the environment's complexity so that the intervention programme can be better adapted to the specific educational context (ELLIOTT *et al.*, 2019). Therefore, the aim of this study was to explore the beliefs and perceptions of the individuals who are part of the educational context in relation to adolescents' health behaviours and intervention programmes, to gain insight into the setting where the intervention needs to be implemented.

2 MATERIAL AND METHODS

2.1 STUDY CONTEXT

This study was the first phase of a large-scale project. Its aim was to explore the context characteristics as well as the perceptions and beliefs of the individuals from the environment where the action would take place in order to design an intervention programme that adapted to the participant's needs. The research was conducted in a Spanish secondary school, located in a city with medium-high socio-economic status, with more than 30 teachers and 500 students, 56 of whom were aged between 13 and 14. Prior to the scheduled starting date, the school management team was informed about the study purpose and the data collection process that would take place in the following months, which they approved.

2.2 PARTICIPANTS

Purposive sampling was used in the current study. To gain access to the context and participants, the study coordinators contacted the head teacher and the physical education teacher by telephone and e-mail, who sent the study information to all teachers and parents. To recruit local politicians, the mayor was contacted, who referred the information to the areas that might be involved (education, youth, mobility, and sports). The final sample was composed of twenty-two participants from the

educational and community context belonging to the SEM's different levels (students, families, teachers, and local politicians). The students were selected from the study's target population: adolescents. The teachers selected the group of students, prioritizing those with adequate communication skills and who were participative in their classes. They belonged to different class groups and the intention was to include the same number of boys and girls. An e-mail was sent to all students' parents inviting them to participate. Finally, three mothers and one father accepted. The purpose of inviting parents was to obtain an additional point of view (according to the next level of the SEM), and also because they could potentially be involved in the intervention. Teachers and local politicians were included in the same population group with the aim of obtaining internal (school staff) and external (city council members) points of view on the environmental level of the SEM (Table 1).

Table 1 – Participant characteristics and FG distribution

FG 1: Students	Students (n=9)	
	Gender (% female)	55.55%
	Age range (years)	13-14
	School year	9
FG 2: Parents	Parents (n=4)	
	Gender (% female)	75%
	Age range (years)	36-50
	Level of studies	Secondary education University studies
FG 3: Teachers and local politicians	Teachers (n=6)	
	Gender (% female)	33.33%
	Age range (years)	36-over 50
	Level of studies	University studies
	Politicians (n=3)	
	Gender (% female)	33.33%
	Age range (years)	36-50
	Level of studies	University studies

Source: elaborated by authors.

2.3 DATA COLLECTION

Three focus groups (FG) were created where the participants were encouraged to discuss the topics under study (Table 2), always guided by a moderator. All FGs gathered in a school classroom in a quiet atmosphere. The moderator of the three FGs was a 24-year-old man, with expertise in group guidance and management, who had not previously met the participants. For the discussion, the moderator used a semi-structured script of open-ended questions that allowed him to ask the participants about their perceptions and was tailored to the interview's needs. Additionally, two assistants helped him by taking notes of the participants' key conversation aspects and non-verbal communication, without actively participating in it. The FG activity lasted between 61 and 74 minutes, was recorded through a voice recorder, and was manually and literally transcribed within one month after completing all FGs.

Table 2 – FG Questions

FG1. Students
A1. Do you think the school and the city can help you to develop healthy habits such as PA?
A2. What can the school and the city council do to encourage you to adopt an active lifestyle or other behaviours?
B1. Are you predominantly active or sedentary? Why?
C1. Do you think the school, or the city do things to make you feel better about yourself?
C2. In your opinion, what are the school's and the city council's strengths when convincing you to adopt an active lifestyle? And their weaknesses?
C3. What do you think a programme needs to be like for you to have a healthier environment?
D1. What could you or the group do to be more active for as long as possible? What would the school or the city have to do?
FG2. Parents
A1. Could you explain what, in your opinion, an active environment means?
A2. What do you think the school and the city do to promote these healthy environments?
B1. Are adolescents in the city and, specifically, your children physically active or sedentary? What is your opinion based on?
C1. Do you think the school and the city council are institutions with responsibility in the promotion of an active lifestyle? Why?
C2. In your opinion, what are the school's and the city council's strengths when promoting active environments? And their weaknesses?
D1. Do you think programmes aimed at promoting an active lifestyle among adolescents can be maintained over time?
D2. What actions could be taken so that the promotion of an active lifestyle lasts over time?
FG3. Teachers and local politicians
A1. Could you explain what, in your opinion, an active environment means?
A2. What do you think about the context of this school and this city as active environments?
B1. Do the adolescents of this city and the students at this secondary school seem to be predominantly active or sedentary? What is your opinion based on?
C1. From your perspective/role/context, what possibilities do education centers have, with the help of the community, to enhance physical activity promotion?
C2. Who do you think is responsible for these actions? Why?
C3. In your opinion, what are the school's and the city council's strengths when promoting healthy environments? And their weaknesses?
D1. What actions do you think could be taken so that programmes to improve physical activity are maintained over time in the school and in the city?

Source: elaborated by authors.

All participants received an explanatory letter in advance, setting out the study aims. Moreover, participation was voluntary, and, in the case of (underage) students informed consent was previously obtained from their parents. The participants' data remained anonymous and were kept confidential. The study was reviewed and approved by the Clinical Research Ethics Committee of the Aragon Region (reference C.I. PI21/502).

2.4 DATA ANALYSIS

Thematic analysis was used through a deductive method based on the observation areas previously established in a theoretical framework review (BRAUN;

CLARKE, 2022). This type of analysis allows for complex and detailed research (BRAUN; CLARKE, 2019). The content coding and the theme and subtheme structure were generated with NVivo software (QSR International®, Melbourne, Australia; "release 1.7" version for Windows) and allowed for organized and systematic content coding. The analysis phases proposed by Braun and Clarke (BRAUN; CLARKE, 2006) for a quality thematic analysis were followed. Firstly, the lead author applied a coding strategy to identify up to 26 codes and later reduced them to 10. Subsequently, and through repeated and careful reading, those codes were grouped into themes and subthemes (Table 3). Lastly, all researchers supervised and agreed on the final theme and subtheme names before proceeding with data interpretation.

Table 3 – Examples of participants' quotes throughout data collection.

Theme	Subtheme	Quote examples
A. Beliefs about active environments	The school as an active environment	I believe that schools should be the example of a healthy place, but I don't always see it. (LOCAL POLITICIAN 3)
	The city as an active environment	The geographical location and size help people to be active, but the city council should know how to take advantage of this. (PARENT 1)
	The family as an active environment	The school and the city council can do many things, but families also play a very important role. (LOCAL POLITICIAN 2)
B. Perceptions of adolescents' behaviours	PA	I consider myself active because I practice sports every week, both at weekends and during the week. (STUDENT 6)
	ST	My son is completely addicted to screens; I've already given up. He can't communicate; physical contact, eye contact (...), all that is now lost. (PARENT 1)
	Psychosocial health	In social media they are free and uncontrolled, so they do whatever they want, as opposed to real life. Besides, they feel overwhelmed by stereotypes, so they insult and make fun of others. (PARENT 4)
C. Perceptions of education intervention programmes for PA promotion and ST reduction	Weaknesses	But it is really difficult with only one person or one department, a group is needed. (TEACHER 3)
	Strengths	And if that group has the necessary tools, the project is much more likely to succeed. (TEACHER 3) I am absolutely sure that if we were to work more closely, we would be able to achieve much more. I think the two parties represented here have great potential. (LOCAL POLITICIAN 1)
D. Beliefs about intervention sustainability		The staff may rotate, but something becomes more sustainable when it is institutionalized. (TEACHER 2)

Source: elaborated by authors from the participants verbalisations.

Following the criteria initially developed by Guba (1981) and later detailed by Shenton (SHENTON, 2004), the trustworthiness of this naturalistic work is nourished by different aspects that make it valuable in this research field. The credibility of the study was reinforced by data triangulation and an in-depth description, which the three researchers participated in, through constant scrutiny of the research project and different reflection techniques. A detailed description of the findings can be useful to address the transferability and dependability of the study, and to allow the reader to learn about the implementation process followed. Therefore, the context analysis regarding PA promotion in the school was described in detail. Through the pre-established theoretical foundation (i.e., SEM) and under the umbrella of the theoretical frameworks (e.g., Health Promoting School approach) described in the introduction, methodological rigor is achieved in accordance with the demands of an implementation design process in a complex context. To overcome the confirmability problem and to ensure, as far as possible, that the findings remained linked to the participants' data, the three authors conducted a joint reflection process to reduce the subjectivity bias by acknowledging their predispositions and experiences as regards the theoretical framework and the data.

Linked to this, to ensure research quality, a strict and thoughtful process was followed based on the eight key markers of excellence in qualitative research (TRACY, 2010): a) exploring the beliefs and perceptions regarding the study's specific environment is a relevant topic in order to identify the needs of the system to be analysed; b) the study relies on a theoretical reference framework supported by health and social intervention fields; c) the researchers have continuously reflected on the subjective values behind their interpretation, adding and removing new themes and subthemes to make the study subject as accurate as possible; d) research credibility is shown by the detailed description of the findings, as well as by the selection of participants' textual references; e) this is a theoretical-practical study that allows the scientific community to gain knowledge on PA promotion, it is helpful to the education community, and it can be seen as a first collaboration step among stakeholders; f) it represents a practical contribution to the intervention context, since the intention is to subsequently implement a project based on its needs; g) the study is respectful towards the school context ethics, taking its philosophy and organisation system into account, as well as towards the family and social-cultural context where it takes place; h) there is meaningful coherence between the method applied and the study aims.

3 RESULTS

Participants mainly focussed on: a) beliefs about what an active environment is. All participants acknowledged the importance of the city and the school as the most determining settings in the creation of an active environment. Three other topics of interest were also identified: b) perceptions of adolescents' health behaviours, c) perceptions of education intervention programmes for PA promotion and ST reduction, and d) beliefs about those programmes' sustainability. Furthermore, subthemes were added to three of the themes to increase the level of detail.

3.1 A MULTIFACTORIAL ACTIVE ENVIRONMENT, EVERYONE'S RESPONSIBILITY

According to the participants' beliefs about active environments, the surrounding environment and the possibilities offered by the geographical location helped to adopt an active and healthy lifestyle. However, they also considered it necessary for the institutions to take advantage of that context. The participants argued that the education center, as an entity, could be responsible for bringing students closer to that environment and making the knowledge acquired in the classroom relevant by linking it to the environment's social reality.

> Because we look after the adolescents for at least 6 hours a day in their daily life. [...] because we have resources and means for direct intervention with students and families. (TEACHER 1)

Likewise, they believed that the city council, as responsible for environmental care, maintenance, and promotion, should link its political strategies to the school initiatives, to align the messages received by adolescents and, therefore, to have a greater impact on them.

> If we collaborate with schools and combine our actions, we can generate a coordinated action with a multiplier effect. (LOCAL POLITICIAN 3)

Families understood that the responsibility for creating an active environment for adolescents rests with them, especially in the first life stages. Consequently, they believe that primary school and later secondary school become more important in active lifestyle promotion. Nevertheless, there was consensus that, after these first stages, in adolescence, emotional emancipation from the family usually occurs, which helps to enhance relationships with peers.

> I think the family is very important; what the family instills in their children from childhood or the family's way of life. (PARENT 2)

> Many people prefer to stay at home and play video games and that's where friends have a greater influence than families. (STUDENT 5)

3.2 (IN)ACTIVE ADOLESCENTS AND THE SCREEN PROBLEM

Different perceptions of adolescents' movement behaviours were detected among the study participants. Adolescents considered themselves active, understanding that being active meant doing sports one or several days a week, or doing some light PA. By contrast, they did not perceive excessive ST due to the long screen time caused by new technologies as a risk behaviour for their health.

> I consider myself an active person, because every week I have a sports day and go for a walk or walk the dog. (STUDENT 2)

By contrast, the rest of the stakeholders believed that those who did not practice a competitive sport did not regularly practice PA. Furthermore, both families and teachers perceived long ST with screens as one of the most prevalent unhealthy behaviours at this age and showed their concern regarding how this behaviour hinders social relationships in youth. As reported by the participants, excessive ST

with screens may be affecting their psychosocial health, and here lies the importance of mental health, social abilities, and gender equality.

> I consider that adolescents who do not practice competitive sports do not do any sports. [...] the addiction to video games and the use of mobile phones to watch videos on the Internet are serious issues in adolescents' lifestyles. (POLITICIAN 1)

3.3 EXCESSIVE WORKLOAD FOR TEACHERS AND THE NEED FOR COOPERATION TO BUILD THE PROJECT

Regarding the potential of intervention programmes to promote PA and reduce ST, teachers perceived that conducting a large number of projects on different themes makes it challenging to (successfully) carry out a project like this. They mentioned the current working conditions and the large amount of information they have to handle and teach, always giving more priority to urgent than ~~to~~ important content.

> But, as I said before, the time we have to work on them is minimal, so the mark you leave is very small, while it should be bigger. (TEACHER 4)

Nevertheless, individuals who participated in these initiatives (families and students) stated that the school and the city did carry out actions, but that these were not effectively communicated and, therefore, their impact was not significant. Consequently, a change in the way of organizing these programmes was deemed necessary. Students and families perceived that isolated actions were performed with no coordination between the school and the city council, and they believed this was important for the messages to reinforce the education students received at home.

> We see many one-off actions, the city is full of signs announcing events, and the secondary school is always organizing activities in the morning, and in the evening... but I think they are not well-coordinated. (STUDENT 3)

PA promotion from secondary school was perceived as a task and competence of the Physical Education area. Nonetheless, teachers perceived that one-person or one-department leadership was insufficient to fully coordinate a programme of this magnitude. Other stakeholders supported this statement and emphasized how important it was for all teaching staff and other agents to get involved to make these programmes effective. By doing so, interdisciplinary connections can be created to enhance the learning significance.

> And the project must be led by an individual, a group of people or a subject like Physical Education. [...] PA-related content can be addressed in Physical Education. (TEACHER 3)

> But not only the Physical Education team and, getting back to what I said before, it is not just sports, but this involves many areas. (TEACHER 5)

3.4 SUSTAINABILITY? TEACHERS ROTATE; FUNDING AND PROJECT INSTITUTIONALIZATION ARE THE KEYS

The teaching team reported that there was no permanent staff at the school, but new teachers were received every academic year, which they believed could be a barrier to sustainability.

> I deem teacher rotation to be a weak point for any programme's sustainability (TEACHER 6)

Moreover, most of the participants agreed that funding was needed for these programmes to be maintained over time. In addition, teachers claimed they needed more time within their working hours to devote to these projects, as they currently needed to spend many extra hours working on them.

> Unfortunately, we are often limited by funding. (POLITICIAN 3).

> In the past, I remember we used to have some time within our working hours which we could spend thinking, and planning…, but now this does not exist. (TEACHER 4)

The engagement of all stakeholders in the adolescents' environment, from families to local politicians, is essential to guarantee the effectiveness and sustainability of any intervention. Apart from that, they deemed it necessary to institutionalize these programmes into the school planning, establishing two main paths: a specific one for every department involved in the project, which would be included in their curriculum, and another one through the guidance and tutorial action plan (Spanish cross-curricular subject) with school-specific aspects that must be included every year by law.

> What do I do now and what did I use to do twenty years ago? For example, I create a teaching programme because a curriculum exists [...] What did we use to do twenty years ago and continue doing nowadays? Everything is done through the tutorial action plan. (TEACHER 1)

4 DISCUSSION

The aim of this study was to explore the existing beliefs and perceptions of the different stakeholders of a particular educational context in relation to adolescent health behaviours and intervention programmes. Through this analysis, it has been possible to understand the complex setting in which the intervention is intended to be implemented, identifying the environment's strengths and weaknesses, as well as the barriers to sustainability. One of the strengths of our study, as confirmed by the results, is that adolescents live in an environment that offers the possibility of promoting the adoption of an active and healthy lifestyle. However, the external stakeholders detected that they spent a very long time in front of a screen every day. The participants believed that coordination and the collaboration of all agents in an intervention programme are key for it to be successful.

According to the agents' beliefs, the responsibility of providing adolescents with an active environment was in line with the between-level proximity in the socio-ecological model (SALLIS *et al.*, 2006). Thus, families should be the first ones to educate by instilling certain healthy habits from early childhood. Moreover, the importance of leading an active lifestyle and avoiding health-risk behaviours needs to be transmitted at all school levels. Lastly, there was consensus that the city and external institutions should provide support and ensure that messages from all levels

stay aligned (BAUMAN *et al.*, 2012). In adolescence, peer influence also seems important in adopting healthy or unhealthy behaviours (MCHALE *et al.*, 2022).

Various perceptions were found among participants as regards adolescents' health behaviours in some of the topics proposed. The adolescents perceived themselves as active people because they did low-intensity activities like walking or practising sports several days a week. However, for this age group, the current PA guidelines recommend doing at least 60 minutes of moderate-to-vigorous PA every day (WHO, 2020) to keep a good health status (CARSON; WEBSTER, 2019). Another issue associated with their lifestyles that they did not perceive was screen addiction. Recent studies have confirmed that adolescents spend between 4 and 6 hours of screen time (VERLOIGNE *et al.*, 2016), while 2 hours is the limit recommended in the literature (TREMBLAY *et al.*, 2011). This behaviour may negatively affect other healthy behaviours such as PA or sleep (VERLOIGNE *et al.*, 2021). By contrast, families highlighted this behaviour as one of the key issues affecting their children's health, which may be one of the greatest barriers to doing PA outside secondary school (ALCÁNTARA-PORCUNA *et al.*, 2021). In a systematic review of qualitative studies (LIU *et al.*, 2021), the authors proved that parental education and parental modeling have a strong influence on adolescents' behaviours. These findings support the participants' perceptions that parents are responsible for creating an active environment at home, which is reinforced by the actions performed in their homes, in the secondary school, and in the city.

In order to generate behavioural changes in adolescents, the participants deemed the engagement of the whole environment (families, teachers, and politicians) in PA-promoting initiatives necessary. Teachers and politicians perceived that they were made responsible for promoting health (LANGFORD *et al.*, 2015), but they deemed it inappropriate for one single person or department to head a programme of such magnitude. Teachers perceived the curriculum and the current laws as limiting factors for developing intervention programmes, as previously described in the literature (BASSETT *et al.*, 2013). Considering these perceptions, it seems appropriate to adopt a multilevel intervention, which takes between-stakeholders alignment into account (SALLIS, 2018), and which is also multicomponent (SUTHERLAND *et al.*, 2016), acting from different areas (e.g., Physical Education, other subjects, breaks or after-school activities). To do so, a global approach involving the whole school and community would fit perfectly (HUNT *et al.*, 2015; TIBBITTS *et al.*, 2021). As a limitation of these programmes, the education agents explained that these projects require a number of working hours that are not included in the current Spanish curriculum. In an ethnographic review (ALCÁNTARA-PORCUNA *et al.*, 2022), the authors identified that lack of time was a barrier to the promotion of high-quality PA in adolescents, both for teachers and families. An effective strategy to solve this problem could be to obtain support from governmental bodies and media, to reinforce the messages sent to students (HINKLEY; MCCANN, 2018). Additionally, the Physical Education teacher was proposed as a potential leader in the coordination of these programmes, as suggested by other authors (MCMULLEN *et al.*, 2015).

The public funding dedicated to these projects is limited (HILLS; DENGEL; LUBANS, 2015). Consequently, we should aim for programmes that do not require a lot of resources or allocate funding to this type of programme, to improve adolescents' health and, therefore, save future healthcare costs (FERNHALL; BORGHI-SILVA; BABU, 2015). Lastly, all participants deemed it necessary to institutionalize these programmes into the center's planning and to handle them from a cross-curricular perspective because the same aspects are addressed year after year.

5 CONCLUSION

This study has allowed us to explore the beliefs and perceptions of different stakeholders regarding adolescents' health behaviours and the implementation of programmes in a particular educational context. Nonetheless, this study has several limitations that must be mentioned. Firstly, the main limitation of our study was the small number of participants, especially in the parents' FG (4), because this entailed a lower depth of analysis. Also, the time spent on the students' FG was included in their school hours due to the difficulties in accessing this population and the low rate of voluntary participation. This could have generated some reluctance in the initial part of the discussion, leading to reduced verbalization in this group. Further research with larger samples, especially parents (fathers), is needed to design interventions that capture the perspectives of all stakeholders in relation to school health promotion.

The findings of the present study suggest that PA promotion and ST reduction, especially in terms of screens, are necessary in the specific context under study involving all educational community agents and building strong cooperation bonds to make these interventions effective and sustainable. The major weaknesses of these programmes are the teachers' availability due to lack of time and the lack of funding allocated to these projects. This study may not only be of interest to the scientific community, but also to the educational community and policymakers since it offers key elements of PA promotion among adolescents.

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Resumo: São necessárias intervenções para modificar os comportamentos de atividade física dos adolescentes e, nesse sentido, as ações baseadas na educação nas escolas parecem ser eficazes. O objetivo deste estudo foi explorar as crenças e percepções das partes interessadas do contexto em relação aos comportamentos de saúde dos adolescentes, bem como aos programas de intervenção para obter uma visão do ambiente em que uma intervenção deseja ser implementada. Foram criados três grupos focais com vinte e dois participantes (nove adolescentes, quatro pais, seis professores e três políticos locais). O contexto educativo, em colaboração com a comunidade, foi percebido como um ambiente com um alto potencial para a promoção da atividade física. O compromisso e a coordenação de todas as partes interessadas foram considerados necessários para uma intervenção personalizada, bem como a institucionalização do programa para garantir a sustentabilidade. A intervenção multinível com uma abordagem de toda a escola e da comunidade é fundamental para aumentar os níveis de atividade física entre os adolescentes.

Palavras-chave: Atividade física. Adolescentes. Ensino Médio. Intervenção Psicossocial.

Resumen: Se necesitan intervenciones para modificar los comportamientos de actividad física en adolescentes y, en este sentido, las iniciativas desde la educación parecen ser efectivas. El objetivo de este estudio fue explorar las creencias y percepciones de las partes interesadas del contexto en relación con los comportamientos de salud de los adolescentes y los programas de intervención para conocer mejor el entorno en el que se quiere aplicar una intervención. Se crearon tres grupos focales con veintidós participantes (nueve adolescentes, cuatro padres, seis docentes y tres políticos locales). El contexto educativo, en colaboración con la comunidad, fue percibido como un ambiente con un alto potencial para la promoción de la actividad física. Se consideró necesario el compromiso y la coordinación de todas las partes interesadas para una intervención personalizada, así como la institucionalización del programa para garantizar la sostenibilidad. La intervención multinivel con un enfoque de toda la escuela y la comunidad es clave para aumentar los niveles de actividad física entre los adolescentes.

Palabras clave: Actividad física. Adolescentes. Escuela secundaria. Intervención Psicosocial.

CONFLICT OF INTERESTS

The authors declare that there is no conflict of interest in this study.

AUTHOR CONTRIBUTIONS

Hisham Bachouri-Muniesa: Text writing, theory study, selection and analysis of studies on conceptual change.

Berta Murillo-Pardo: Selection and analysis of studies on conceptual change.

Sonia Asún-Dieste: Data collection, formatting, analysis and general revision of the text.

FUNDING

This work has been supported by the Erasmus+ (EAC/A02/2019) project 'Promoting Physical Activity in Secondary School for Health (2PASS-4H)' (622733-EPP-1-2020-1-FR-SPO-SCP).

RESEARCH ETHICS

The study was reviewed and approved by the Clinical Research Ethics Committee of the Aragon Region (reference C.I. PI21/502).

HOW TO REFERENCE

BACHOURI MUNIESA, Hisham; MURILLO-PARDO, Berta; ASÚN-DIESTE, Sonia. What is needed to promote physical activity in a secondary school? a qualitative study. **Movimento,** v. 29, e29053. Jan./Dec. 2023. DOI: https://doi.org/10.22456/1982-8918.130358