

Let's talk about chronic conditions: Clues for a school environment that promotes students' well-being and academic success - a qualitative study

Hablemos de las enfermedades crónicas: Pistas para un entorno escolar que promueva el bienestar y el éxito académico de los alumnos: un estudio cualitativo.

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Abstract:

This study aims to investigate people's attitudes toward chronic conditions (CC) that may affect the well-being of students with these conditions and to explore the school environmental characteristics associated with their well-being and academic success. Using a qualitative design with focus groups, 162 participants (62 first-year university students, 23 teachers, 52 health professionals, and 25 parents; 87% female; $M = 36.10$, $SD = 14.55$) shared their perspectives. Analysis revealed three main categories: (1) attitudes toward CC, (2) barriers to participation and academic success, and (3) school characteristics supporting well-being. The most frequently mentioned subcategories were lack of information about CC (common across categories), stigma (related to attitudes), health factors (barriers), and limited human and material resources (school characteristics). Findings underscore the need to educate society and school agents to reduce misconceptions and promote inclusive, supportive educational environments. The study provides valuable insights for schools and policymakers to improve the psychosocial well-being and academic outcomes of students with chronic conditions.

Keywords:

Adolescents; chronic conditions; school environment; health; well-being; barriers to participation; attitudes towards chronic conditions

Resumen:

El objetivo de este estudio fue investigar las actitudes de las personas hacia las enfermedades crónicas (EC) que pueden afectar al bienestar de los estudiantes que las padecen y explorar las características del entorno escolar relacionadas con su bienestar y su rendimiento académico. Mediante un diseño cualitativo con grupos focales, 162 participantes (62 estudiantes universitarios de primer año, 23 profesores, 52 profesionales de la salud y 25 padres; 87 % mujeres; $M = 36,10$, $SD = 14,55$) compartieron sus perspectivas. El análisis reveló tres categorías principales: (1) actitudes hacia las EC, (2) barreras para la participación y el éxito académico, y (3) características escolares que favorecen el bienestar. Las subcategorías más mencionadas fueron la falta de información sobre las EC (común en todas las categorías), el estigma (relacionado con las actitudes), los factores de salud (barreras) y los recursos humanos y materiales limitados (características escolares). Los resultados subrayan la necesidad de educar a la sociedad y a los agentes escolares para reducir los conceptos erróneos y promover entornos educativos inclusivos y de apoyo. El estudio proporciona información valiosa para que las escuelas y los responsables políticos mejoren el bienestar psicosocial y los resultados académicos de los estudiantes con enfermedades crónicas.

Palabras claves:

Adolescentes; enfermedades crónicas; entorno escolar; salud; bienestar; barreras para la participación; actitudes hacia las enfermedades crónicas.

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Chronic diseases or noncommunicable diseases (NCDs) pose a growing challenge to the health of individuals. Cardiovascular disease, respiratory disease, diabetes, and cancer are some health conditions that have a significant individual, social, and economic impact worldwide (OECD, 2019; World Health Organization [WHO], 2014, 2018). Medical advances have led to an increase in individuals' life expectancy. Conversely, these advances also increase the adolescent population who deal with the challenges associated with a CC diagnosis daily (Lerch & Thrane, 2019).

Adolescence is a developmental period with inherent characteristics that may increase the risk of adaptation to a CC (Brady et al., 2021; Iannucci et al., 2022; Lerch & Thrane, 2019). During this period, adolescents are expected to develop personal, social, and emotional skills essential for their well-being, adjustment, and psychosocial functioning throughout the life cycle (Iannucci et al., 2022; Matos, 2015, 2020). Therefore, it is imperative to consider the impact that CC may have on adolescent development, as evidence suggests that this population is at increased risk for mental health problems (Brady et al., 2021; Cobham et al., 2020; Forrest et al., 2022; van der Sprenkel et al., 2022). In addition, adolescents with CC have an increased risk of experiencing emotional and social difficulties and tend to have compromised well-being and quality of life (Cerqueira, Gaspar et al., 2022; Cerqueira, Guedes, Gaspar et al., 2022; Määttä et al., 2022; van der Sprenkel et al., 2022).

The limitations and challenges experienced by adolescents with CC vary depending on the type of health condition. However, there seems to be a consensus regarding the impact of CC on their development and psychosocial functioning (Adama et al., 2021; Lerch & Thrane, 2019; Määttä et al., 2022; van der Sprenkel et al., 2022; Zheng et al., 2020). There may be limitations to participation in different activities and contexts, in addition to potential forms of exclusion (Brady et al., 2021; Schlebusch et al., 2020). Thus, having a chronic health condition presents specific challenges and concerns that lead individuals to experience the concept of stigma and exclusion (Charmaz, 2020) that affect their psychosocial well-being (Guo et al., 2020; Perugino et al., 2022).

Given the ecological perspective on human development, it is essential to consider the bidirectional influence between individuals and contexts. These contexts may be more proximal or distal to individuals and may exert direct or indirect influences on development. Accordingly, both the characteristics of these contexts and individual attributes shape adolescents' developmental trajectories. From this perspective, school represents one of the contexts closest to adolescents, characterized by multiple interrelationships and bidirectional influences that play a significant role in their development (Bronfenbrenner, 1977, 1979, 1994).

Students' relationship with school is a factor that affects their developmental outcomes (Steiner et al., 2019). Evidence suggests that adolescents with CC are at greater risk regarding their school experiences and outcomes (Adama et al., 2021; Lum et al., 2017; Sentenac et al., 2022). Therefore, CC is associated with factors such as greater absenteeism and more academic difficulties (Harshman et al., 2019; Koivusilta et al., 2022; Lum et al., 2019; Schlecht et al., 2023; van Opstal et al., 2021) and more significant difficulties in peer relationships (e.g., peer victimization and exclusion) (James et al., 2022; Runions et al., 2020; Sentenac et al., 2013).

Given the challenges identified in the literature faced by adolescents with CC and the central role of the school context in their psychosocial well-being, the present study has three main objectives: (1) to examine attitudes toward CC, in light of evidence indicating the presence of stigma and social exclusion associated with this diagnosis; (2) to explore the barriers en-



countered by these students throughout their educational trajectories, from the perspectives of first-year university students, teachers, health professionals working in school settings, and parents; and (3) to identify the characteristics that the school environment should possess to promote the well-being and academic success of students with CC.

Method

Considering the objectives of the present study, a qualitative approach was used by conducting focus groups with first-year university students, teachers, health professionals working in a school context, and parents/guardians. First-year university students were selected because they had completed all years of compulsory education, which enabled the development of a more comprehensive perspective on the phenomenon under study. At the same time, their recent educational experience allowed for a degree of distance and reflection that was conducive to critical analysis. This qualitative design enabled an in-depth exploration of the perspectives of the four participant groups in relation to the study’s objectives, complementing quantitative findings from previous studies.

Participants

Participants were selected through convenient sampling at locations where the target population was present, such as schools, universities, health centers, and parent associations. In addition, links were shared online to register for focus group participation.

The study involved 162 participants, including 62 first-year university students, 23 teachers, 52 health professionals, and 25 parents. Among these participants, 87% (n=141) were female, and their ages ranged from 18 to 66 years, with an average age of 36.10 (SD=14.55). The sociodemographic characterization of the participants is shown in Table 1.

Table 1

Sociodemographic characteristics of the population

	<i>n</i>	<i>%</i>	<i>M</i>	<i>SD</i>	Min.	Max.
Students	62	38.3				
Gender						
Female	50	80.6				
Male	12	19.4				
Age			21.44	5.65	18	55
Teachers	23	14.2				
Gender						
Female	22	95.7				
Male	1	4.3				
Age			47.35	11.96	27	66
Health professionals	52	32.1				
Gender						



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	<i>n</i>	%	<i>M</i>	<i>SD</i>	Min.	Max.
Female	47	90.4				
Male	5	9.6				
Age			46.52	10.17	22	63
Parents	25	15.4				
Gender						
Female	22	88				
Male	3	12				
Age			42.12	6.14	28	52

Data collection

Five focus groups were developed with first-year university students, four groups with teachers, four groups with health professionals working in a school context, and two groups with parents. The number of participants in each group is described in Table 2.

Table 2

Number of participants in each group (students, teachers, health professionals and parents)

	Number of participants (<i>n</i>)
Students	
Group 1	6
Group 2	16
Group 3	18
Group 4	11
Group 5	11
Teachers	
Group 6	5
Group 7	4
Group 8	6
Group 9	8
Health professional	
Group 10	9
Group 11	7
Group 12	22
Group 13	14
Parents	
Group 14	11
Group 15	14

The interviews were conducted between March and July 2023, face-to-face or via the Zoom platform, depending on participants' preferences and availability. The duration of the focus groups varied between 60 and 90 minutes. The groups were recorded after all participants had given their informed consent, thus ensuring the confidentiality of the data and the voluntary



nature of participation. This work is the result of a study approved by the Ethics Committee of the Academic Center of Medicine of Lisbon, the Lisbon North Hospital Center, EPE, and the General Directorate of Education and Science Statistics (Ref. N°. 281/21, November 5th, 2021).

The research team prepared the script used to conduct the focus groups. It included three main themes, derived from the results of previous studies (Table 3). Questions were pre-tested with representatives of different participant groups: students, teachers, health professionals, and parents. The first and second authors conducted the group interviews.

Table 3

Focus group scrip - themes and questions

Themes	Questions
1. People’s attitudes towards CC	How do you think society sees adolescents with CC?
2. Barriers to the participation and academic success of students with CC	What are the difficulties/barriers that students with CC must face in their educational journey?
3. Characteristics of the school as an environment that promotes the well-being and academic success of students with CC	What characteristics do you consider essential for schools to be inclusive/integrative and to promote the well-being and academic success of students with CC?

Data analysis

Data from participants were recorded, transcribed, and analyzed using MaxQda Analytics Pro 2022. Full transcripts ensured credible and valid analyses.

Data analysis was conducted in two phases: (1) an initial reading and systematic examination of the collected data to carry out a preliminary content analysis; and (2) a second, more in-depth content analysis involving the identification and organization of data into categories and subcategories aligned with the study’s objectives. The analysis was performed both individually (by the first author) and collaboratively (by the first, second, and last authors). In addition, the findings were interpreted in light of relevant literature and quantitative data from previous studies conducted by the research team as part of the first author’s Ph.D. project.

The age and gender of participants were analyzed using the Statistical Package for Social Sciences (SPSS) version 29 for Windows.

Results

Tables 4, 5, and 6 show the categories and subcategories that emerged from the content analysis process and indicate the groups in which the subcategories emerged. In this sense, the three main categories were as follows: People’s attitudes towards CC toward CC (Table 4); Barriers to participation and academic success of students with CC (Table 5); Characteristics of the school as an environment that promotes the well-being and academic success of students with CC (Table 6).

It is important to mention that in the initial phase of some of the group interviews, there was a noticeable confusion between the concept of chronic disease and disability, indicating a lack



of precision on this matter. As a result, the researchers clarified these concepts whenever necessary at the beginning of the group interviews.

In collecting and analysing the data, seven categories emerged regarding the people's attitudes toward CC. Stigma was the attitude most associated with CC by the participants. There was widespread mention of society's perception of young people with CC as less able, more dependent, and 'different.' This idea of stigma emerged in all groups of participants, being most mentioned by students and health professionals.

"I think the worst thing is an underestimation because if you underestimate the other person's abilities, the other person might feel frustrated because they do not see those abilities in them, or they might not even... how can they develop anything if there is somebody who thinks they are not capable, or they are not even aware that they are capable." (Student)

"Use of medication, habitual medication, any physical or mental limitation, need for monitoring, support, dependency..." (Health professional)

"Everything different in our society is always a problem. Because I think you do not accept what is different, you do not accept change. We prefer to continue in this register of what is considered normal instead of realising that people are all different, that everyone has their limitations, and it is our society, jobs, whatever, that must be in accordance with what each person can do (...) It is not just about discarding someone just because they have a limitation" (Student)

Similarly, participants reported that attitudes towards CC lead to social exclusion. They also mentioned that society sometimes sees these adolescents with pity.

"On the one hand, it is a pity, a feeling of pity, for the child, poor thing, but then we have to demystify who we are working with, what it really is..." (Teacher)

Lack of information/misinformation about CC was the second most frequently mentioned subcategory by the four groups of participants, with a higher incidence in the group of students and teachers. In this context, some participants also felt that there is more understanding if the person has CC or has a family member with such a health condition.

"I think there is no understanding or knowledge of diseases, and so they come with what they think it is and not what it is" (Student)

"And people do not want to inform themselves because as it does not affect them, maybe they will not go, they will not read about the subject, they will not look for it, no... I think it is more like that." (Teacher)

"We are a conservative country, with little information, little enlightenment, but I think that a lot has changed since I was a girl." (Health professional)

"On societal level, I think there is also a lot of ignorance about chronic diseases because people hear about them, but they do not know what they are. People do not know what chronic diseases are, and I think that, in general, younger people are starting to have a different perspective because there is also more literacy, and more is being said. But I still think it is lack of knowledge." (Parent)

According to the participants, people's attitudes towards CC may differ depending on the type of condition. They noted that visible conditions tend to be associated with more significant stig-



ma than non-visible ones. Students and parents mentioned this subcategory most frequently, ranking third on the list of most common responses.

“If it is a visible chronic disease, a degenerative disease, etc., then I think it has a different impact than if it is a chronic disease, but which is not visible, it is not; it is more ignored.” (Professor)

On the other hand, some participants mentioned that CC is accepted and seen as something normal. This idea came up more often in the parent groups.

“I think children usually tend to support each other. That is the idea I have, which is not to exclude them. Of course, it depends on the children.” (Parent)

Finally, and exclusively in the group of teachers, the idea also emerged that there are difficulties in family acceptance and adjustment, which affects the well-being of adolescents and their families.

“It is not easy for any family member to have a child with a chronic disease and to adapt to this experience, isn’t it? To reformulate an entire family dynamic to respond to the child’s health care and other needs, to integrate them into society, to promote self-esteem, etc.” (Professor)

Table 4

Subcategories found in data collection regarding the category “People’s attitudes towards CC”

Subcategories	Students	Teachers	Health professionals	Parents
Stigma	X	X	X	X
Lack of information/misinformation	X	X	X	X
Depends on the type of CC	X	X	X	X
Seen as “normal”	X	X	X	X
Greater understanding due to the experience of a CC	--	--	X	X
Pity	X	X	X	X
Difficulties in family acceptance and adjustment	--	X	--	--

Seven subcategories emerged regarding barriers to participation and academic success of students with CC (Table 5). The three most frequently mentioned subcategories were health-related factors, school-related factors and lack of support/resources.

Regarding health-related factors, participants mentioned the limitations associated with CC (most frequently mentioned by students and health professionals) and the lack of mental health responses (mainly mentioned by health professionals).

“Because of the illness, they may go to classes less often, and sometimes, they may limit their participation in class because they are afraid to participate.” (Student)

“I identified an answer in quick and accessible mental health services regarding barriers. Especially in the area of childhood and adolescence, which is a huge gap that we perceive in



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terms of our response, namely the community response (...) These responses are essential, and also for parents, peer groups (...)." (Health professional)

Regarding school-related factors, participants frequently mentioned the need for more training/awareness raising for educational teams, students, and parents/guardians. Two other mentioned aspects were the importance of the school having physical conditions (i.e., architectural structures) and teaching methods and activities appropriately adapted to students with CC.

"The physical limitations of the space itself, as there are stairs and different elevation areas, makes it challenging to move around." (Teacher)

"I think the surrounding context also has a lot of impact. We must accept the disease, and it can even make us miss more classes or have to eat a different diet, etc. Still, I think that if there are conditions, for example, at school, that can also help. Sometimes, we can't just wait for the family or the adolescents to find their way, so to speak. I think it is also important for the school to have certain conditions for the adolescents; for example, if they miss a lot of classes, the school should have extra classes, support classes, exercises, or anything that allows young people who miss classes to compensate those classes (...) And one of the things that I think is also important in terms of the school context, I think is the adaptation of the curriculum. (...) If the school tries to provide maximum conditions, this can also help young people succeed at school." (Parent)

The four groups of participants mentioned the lack of support and resources, but the health professionals mentioned this aspect the most. Participants considered that more human and material resources and support should exist to overcome the increased difficulties experienced by students with CC.

"Teachers put a lot of effort into doing activities in the classroom with the children, using non-existent materials. Or we bring some materials, and I did not mind, but there are specific things that the school group should have." (Parent)

"There is a lack of technicians everywhere. It is terrible. Technicians in general and technical resources to intervene with chronic disease or young people." (Health professional)

"(...) Social, economic, family support, I think it's multifactorial. (Health professional)

In addition to health-related and school-context factors, participants identified several personal barriers to the participation and academic success of students with CC. These included the need to accept one's health status, tendencies toward social withdrawal or isolation stemming from the condition, struggles to manage pain linked to certain conditions, and fears of falling behind peers or facing ridicule. This subcategory emerged from the sense that these adolescents may feel exposed to others' scrutiny due to their health and the unique traits that may provoke peer curiosity or questioning. Among the four participant groups, students most often emphasized issues of social isolation and pain management

"But the child's or young person's cognitive development at that moment is also very important. And perception and acceptance. People are not all the same, and young people are not all the same. It is a very critical age, and sometimes psychological intervention is needed to help with acceptance of the disease. The first step is really to accept the disease and then work on coping with it because if we do not accept it, we will always be in a situation



of denying a reality that is already there... I think we all have a fundamental role to play in helping to normalise this situation." (Health professional)

"I think that the person's isolation makes it difficult. Because the person thinks, "I cannot do it," it is not I cannot do it, it is, in other words, "I do not deserve to have a relationship or to have that friend because I have this disease", it also comes from the very isolation that you mentioned." (Student)

"Because they are more focused on the pain and feeling better and cannot focus on the same things others are, for example, in classes. How can a person focus on classes if they are in pain, constantly all the time." (Student)

"They feel diminished. Not being able is a barrier for them." (Teacher)

Regarding family factors, participants mentioned the need to accept the new reality of a CC diagnosis, the upbringing at home that can make it difficult for adolescents to cope with CC, and the need for support from the family of adolescents with CC.

"Children with chronic diseases can be successfully integrated into school. It depends on the family; on the family they have. So, how the family accepts it and works with it, how that family articulates with the health service, with the hospital, with the person who monitors this disease, and what doctors usually do is try to ensure that the family has as much training as possible so that children can be independent from an early age." (Health professional)

"Therefore, a strong education at home is critical. If so, children grow up very calmly. If everything is explained calmly, I think it will be much easier. If it is not explained, we have the young people and adults that we see, it is not. And, of course, the teacher in a school makes all the difference. Teachers and assistants." (Parent)

"I think that now, touching a little bit on the family point, families also suffer a lot with chronically ill people because they have to deal with their pain. With the limitations they have, they have to spend more money on medication and treatments, exams, and doctors, they have to be more available, and they have to be more patient. They also need support; sometimes, they really need psychological support." (Student)

The importance of participation for students with CC was also addressed, mainly by the student groups. Participants felt that adolescents with CC have lower levels of participation in different activities and contexts, noting that the degree to which this occurs varies depending on the type of CC.

"For example, they are all going to a party, and he knows that he might have to take his equipment, he might have to take all the equipment, and he knows that he might not be able to do some things. And then maybe he thinks: 'Maybe I will not go because I will not feel good, because I will not be able to do that in front of my friends', and we will not participate in everything." (Student)

Finally, the idea emerged, particularly in the student group, that people's attitudes toward CC could hinder the academic participation and success of adolescents with CC. Thus, opinions about how peers and adults see students with CC impact their integration and well-being.

"But we can also talk about the exclusion they face from their peers. That is why it is important for them to interact." (Student)



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"It is important to be seen as normal and not abnormal." (Student)

Table 5

Subcategories found in data collection regarding the category "Barriers to participation and academic success of students with CC"

Subcategories	Students	Teachers	Health professionals	Parents
Health-related factors				
Limitations associated with CC	X	X	X	X
Lack of mental health responses	--	--	X	X
School factors				
Training (educational teams, students, parents)	X	X	X	X
School physical conditions	X	X	X	--
Adapt teaching methods and activities	X	--	X	X
Lack of support/Resources	X	X	X	X
Personal factors				
Acceptance	X	X	X	X
Isolation	X	X	--	--
Dealing with pain	X	--	--	--
Fear (of not being capable and/or of being teased)	--	X	X	--
Participation of students with CC	X	X	--	X
Family/Education Factors				
Acceptance	X	X	X	X
Education	X	X	X	X
Support	X	X	X	--
People's attitudes towards CC	X	X	--	--

Eleven subcategories emerged concerning the characteristics of the school as an environment that promotes the well-being and academic success of students with CC. Across all participant groups, three subcategories were consistently emphasized: the need for increased training and awareness regarding CC; the availability of greater human and material resources; and improved coordination and communication among all stakeholders within the school context, as well as between schools and health professionals. Training emerged as a recurring theme across all focus groups and was identified within all three analytical categories of the study. Students most frequently highlighted the need for training, whereas teachers and health professionals emphasized the importance of human and material resources. Teachers, in particular, emphasized the need to enhance articulation and communication among all stakeholders within the educational context.

"There should be a programme, such as training for teachers, or at least there should be some alliance, some connection with professionals who can talk about the topic, even if it is in a group of schools, it does not have to be in a school." (Student)



"If there were more awareness-raising activities, they could also address this issue. Making students more aware of chronic diseases could mean they had a little more awareness, that is it, and they would not treat people differently." (Student)

"The problem is that there are many needs and few elements." (Teacher)

"There is a lack of specialized staff, of which there are none. And more operational assistants, which are sorely lacking." (Teacher)

"There must be a lot of information in the school; the school is a microsystem, a micro-society where there is a little of everything (...). Teaching and non-teaching staff need to be informed and made aware when there is a child or several children with chronic diseases in the school." (Health professional)

"There needs to be more coordination between health centers and schools to give us more tools. Whoever says health centers, says hospitals (...), and we also receive more support from these technicians." (Teacher)

Another aspect frequently mentioned by participants was the importance of having a health office with a multidisciplinary team to support students with CC, their families, and educational teams.

"Above all, it is so that the child feels they have a safe space at school. Even more so when we say that these children have so much difficulty feeling safe. First, they have to be aware of what they are going through with their chronic disease and adapt to their new reality. Their self-esteem is also developed in a new way, and in this way, having a health support office allows these adolescents to have a safe space where they can talk, be accompanied, and have different types of professionals. What is lacking is investment." (Health professional)

It was also mentioned within the scope of health offices, primarily by students, that the existing school offices need more professionals and better functioning. Some participants mentioned that their schools only had infirmaries and that non-teaching staff often supported these spaces. Furthermore, the lack of professionals in mental health was also mentioned, considering the number of students per school group.

"Not only do they have to exist, they have to work. Sometimes there is an assistant (non-teaching staff) who sometimes does not know how to help..." (Student)

"And the psychologist there with her student load could not even pay attention. This isn't even her fault; it is more the system's fault. It is a lot of load." (Student)

"There is a nurse who checks all the problems; he has already come here. But there needs to be a better follow-up." (Teacher)

Participants also mentioned the need to adapt teaching methods and promote the integration of students with CC.

"And a person with a certain disease cannot be evaluated, I was talking about this issue in physical education; teachers could never evaluate it in the same way they assess a colleague who does not have a chronic disease." (Student)

"I think moments of integration. To get to know each other and be able to relate much more easily."



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"But it is the truth, we have students who have diabetes, so let's create a day where there is a specific diet just for diabetes." (Teacher)

"(...) You may lose more on this day, alluding to this or that, whatever it may be, and you may lose a little in studying the environment or mathematics. However, you gain more in citizenship and civic spirit, respect for others, tolerance, and mutual help. I do not know; this is very important, and sometimes it is also very forgotten in school programmes." (Health professional)

Consistent with participants' accounts regarding barriers to participation and academic success, this category of school characteristics also highlighted the importance of adequate physical infrastructure and accessibility for students with CC. In addition, participants emphasized the role of schools in actively promoting these students' participation, particularly through their involvement in discussions on issues of interest to them and in decision-making processes. This latter subcategory was most frequently mentioned by groups of health professionals.

"I think that (...) it is also necessary to adapt the schools, that is, schools are also prepared to provide, for example, a space in case a child needs... or is having a crisis, or needs some health support, that is, having spaces prepared for this because not all schools have a medical center. In some schools, it is a table following employee X or Y, and that is it. Moreover, we know that this is not the right space for a young person to recover or have that moment they need." (Parent)

"I think accessibility is also important for well-being, in this case for those with wheelchairs, having ramps and schools being adapted for them." (Student)

"Sometimes, we do not ask them either; students should participate more in decision-making in some way and find strategies for them to participate more." (Health professional)

"They say what they think could change, what they could do." (Health professional)

It was also mentioned, exclusively by the students, that it would be necessary for schools to have more motivated and more available teachers, as they consider that this factor significantly impacts the performance and results obtained by adolescents with CC. Furthermore, participants also mentioned that reducing the number of students per class would benefit the well-being and academic success of students with CC.

"Many teachers are already exhausted and fed up with the way things work and feel they need to be more valued in what they are doing. And then this means that they do not care enough about the kids and go there to give the classes. (...) And the younger we are, the more impact this has. And I think that if they started to change things from the beginning so that there is an appreciation of what teachers do, especially at the beginning of the first year, it could eventually unleash some desire in teachers to do different things to help the children. And not just that thing like let us go to class, now it is mathematics, then it is environmental studies, I think it is still like that, Portuguese, that is it, because I think everyone could do that, not devaluing what is the work of people, but if we have to get there and read what is in the manual and teach the kids how to read, we can all do that. However, if you were really going to teach, educate, search, better children could come out of there." (Student)

"(...) It would be much more favorable if the number of students were smaller because it is impractical for a teacher to have 30 students and be able to give the same attention when



there are so many students with specific difficulties and who need specific support. *Hence, if I could change something, a specific support for each student would exist, and it was standardized.*" (Health professional)

Finally, only the health professionals mentioned the need for better articulation in preparing individual health plans and updating the national school health programme as essential mechanisms for promoting the well-being of students with CC.

"(...) regarding the issue of preparing the individual health plan, I have felt for a long time that school health teams are left very alone in preparing the school health plan because there are areas, such as diabetes (...), that have good coordination between the teams that follow the child in the hospital, the child or young person in the hospital. This information is returned to us in the sense of how we locally can accompany the children and help them have a more favorable inclusion in the school environment... Then, there are other areas in which this articulation is not made; the information does not reach us from those who accompany the child, from those who make the diagnoses. *Moreover, this type of information would be essential to reach the school health teams because the disease is expected to impact their integration into their school environment and inclusion.* (...)." (Health professional)

"In response to the needs of the school itself, it means that we currently do not have a national school health plan; it ended in 2020; the school health plan was from 2015/2020; at the moment, we do not have a national school health plan, which I think is not good because there was always a guideline, whether we liked it or not." (Health professional)

Table 6

Subcategories found in data collection regarding the category "Characteristics of the school as an environment that promotes the well-being and academic success of students with CC"

Subcategories	Students	Teachers	Health professionals	Parents
Awareness/training	X	X	X	X
More human and material resources	X	X	X	X
Articulation/communication between school agents and health professionals	X	X	X	X
Health office with a multidisciplinary team				
Importance for students with CC	X	X	X	X
Inadequate functioning	X	X	--	X
Adapting teaching methods and promoting integration	X	X	X	X
Accessibility/physical structure	X	X	X	X
Encourage student participation	--	X	X	--
Better articulation in the development of the individual health plan	--	--	X	--
More motivated/more available teachers	X	--	--	--
Smaller class sizes	X	X	X	X
Updating the national school health program	--	--	X	--



Discussion

This study allowed for a more in-depth examination of attitudes toward adolescents with CC, the challenges they face in participating fully in school life and achieving academic success, and the characteristics of a supportive school environment that promotes their well-being and academic achievement. The findings indicate that a major factor affecting the well-being and academic success of students with CC is the limited awareness and understanding of CC within society at large and, more specifically, within the school community.

The study participants believe organizing awareness-raising and training activities aimed at students, teaching, and non-teaching staff is crucial to enhancing health literacy in CC. By doing so, schools can be better equipped with the necessary knowledge and tools to support the inclusion and psychosocial well-being of students with CC. The need for training has been identified as a critical requirement across all three categories of this study. Thus, the results show that the participants consider the lack of information a significant gap in society and the school context, which influences people's attitudes towards CC and constitutes a barrier to the well-being and academic success of students with CC.

These findings should be considered from two complementary perspectives. On the one hand, they underscore the importance of health literacy for individual well-being, a topic that has gained increasing prominence in the field of public health. Health literacy is closely associated with health conditions and outcomes, as it influences individuals' ability to access, understand, and use health-related information effectively (Caldwell & Melton, 2020; Liu et al., 2020; Paakkari, Torpa, Boberova, et al., 2019; U.S. Department of Health and Human Services, 2010; Velasco et al., 2021). Worse health outcomes, namely in responsiveness to health promotion content, adherence to services linked to disease prevention, and management of CC, mirror a low health literacy (Nutbeam & Lloyd, 2021).

On the other hand, they reflect the importance of considering a connection between health literacy and knowledge about CC that allows understanding this concept and avoiding or minimising generalisations, stigmatisation, and erroneous interpretations/conclusions. The literature presents the concept of mental health literacy based on the core concept of health literacy (Jorm, 2019). Mental health literacy can be a prominent element in combating the demystification of stigma and prejudice associated with mental health and improving individuals' attitudes towards this concept (Lee et al., 2020). However, to our knowledge, the literature does not show a concept of health literacy aimed explicitly at chronic conditions. The ideas mentioned several times during the group interviews fit into this concept and the framework underlying the notion of mental health literacy.

The concept of health literacy is essential in preventing and managing CC. However, this study reveals that the lack of information regarding CC is not limited to just that. It extends to how individuals and society think and behave towards it. Higher levels of health literacy are associated with a greater likelihood of positive attitudes towards adolescents with CC and a higher level of understanding and support. Therefore, reflecting on the relevance of deepening this concept could be interesting.

Education and awareness of different health conditions are widely used in anti-stigma interventions. These interventions aim to change attitudes and behaviours towards stigmatised groups, such as people with CC (Sheehan & Corrigan, 2020). This fact aligns with the results obtained in this study regarding the importance and need for more information and training in the area



of CC. Given the current reality, mainly characterised by new technologies, it is also essential to consider the dangers associated with misinformation on health issues, especially CC. This phenomenon has an impact on the perception and knowledge that individuals have about CC, both among the general public and among those suffering from a health condition (Roche et al., 2022; Southwell et al., 2019; Suarez-Lledo & Alvarez-Galvez, 2021).

Notably, during the groups, there was a lack of precision regarding the concept of CC and disability, with some participants finding it challenging to understand where one concept begins and the other ends. This scenario reinforces the lack of information (and the need for training) that participants repeatedly mentioned, impacting society's perception of CC. This result is in line with evidence that points to the use of different terminologies within the scope of CC (e.g., health problems, medical conditions, chronic disease, long-term illness, disability, illnesses/disorders) as well as different definitions and assessment methods for both the concept of CC and disability (Cerqueira, Godeau et al., 2022; Michaud et al., 2007; Van der Lee et al., 2007).

Stigma emerged as another relevant aspect in terms of the well-being of adolescents with CC. The findings suggest that these adolescents are often seen as less capable, more dependent, and "different", which often leads to isolation and exclusion. It is worth noting that the results also reflect that the type of CC present is a significant factor in how individuals view CC. In this way, participants consider that health conditions with more visible characteristics and manifestations are more likely to be stigmatised by society than those that go more unnoticed and whose symptoms and specificities are less visible. These results align with the literature in that the experience of CC tends to be associated with the concept of stigma and exclusion, which affects the psychosocial well-being of adolescents (Charmaz, 2020; Guo et al., 2020; Perugino et al., 2022). Furthermore, the results are consistent with the evidence on the level of visibility of the existing CC as a factor that affects the stigma experienced by individuals (Topp et al., 2019).

Another aspect often mentioned is the lack of human and material resources in the school context (mentioned in categories 2 and 3). Participants discussed the need to increase professionals and resources that allow educational teams to respond in a more adapted way to the needs and specificities of students with CC. The ratio of technicians per school was described as insufficient, and the need for health professionals to support students and teaching and non-teaching staff was highlighted. More professionals are therefore needed to carry out awareness-raising and training activities on CC. These findings are consistent with a recent review by Uhm and Choi (2020), which aimed to explore the barriers and facilitators in health care in a school context from the parents' perspective. The results identified insufficient professionals and gaps in education and training regarding CC.

Regarding the need for more professionals and support, participants consider having a health office with a multidisciplinary team in the school context essential. These offices should be a safe space to support students with CC in their increased difficulties that require their own and their families' ability to adapt. In addition, these health offices should support the more specific health needs of each CC. This result is in line with the literature in the sense that a school environment that provides good support to students and gives them a sense of belonging is an element that is associated with their psychosocial well-being (Arslan, 2018; Gaspar, Almeida et al., 2020; Oberle, 2018; VanLone et al., 2019). In addition, a source of support regarding health-related factors is another important aspect of the well-being of students with CC (Paz-Lourido et al., 2020).



The results of this study also revealed barriers to the participation and academic success of students with CC related to health, school, family, and personal factors. Thus, it is crucial to consider CC from an ecological perspective, taking into account the multiple influences between the individuals and the contexts (Bronfenbrenner, 1977, 1979, 1994), as the adaptation and management of a CC requires the involvement of adolescents and agents from proximal contexts (e.g., teaching and non-teaching staff, parents and health professionals).

The literature shows that students with a CC experience increased psychosocial challenges, have more difficulties in the school context, and are at greater risk of experiencing situations of exclusion and peer victimisation (Charmaz, 2020; Sentenac et al., 2013; Runions et al., 2020; James et al., 2022). Although it is essential to consider that the extent of the impact of a CC may vary according to the characteristics and specificities of each health condition, the literature provides evidence that these health conditions affect the psychosocial functioning of adolescents (Adama et al., 2021; Lerch & Thrane, 2019; Määttä et al., 2022; van der Sprenkel et al., 2022; Zheng et al., 2020).

The results of this study also reinforced the importance of the participation of students with CC in different activities and contexts. School participation was frequently mentioned, with participants reflecting on how a CC can influence attendance and presence in certain activities. Therefore, the importance of considering students with CC when planning activities in the school context was highlighted to promote their integration and participation. Participants also mentioned challenges related to participation in out-of-school activities, as students with CC may face challenges due to limitations and restrictions caused by the existing health condition, which can impact their relationships with peers and psychosocial well-being. Evidence from the literature suggests that the participation of students with CC is essential to their well-being and quality of life (Cerqueira, Gaspar et al., 2022; Cerqueira, Guedes et al., 2022).

This study has some limitations that need to be recognised: (1) the difficulty in recruiting teachers and parents/guardians, which reduced the number of participants in these groups; (2) the asymmetry of the sample in terms of the gender of the participants, noting that the number of females was considerably higher than the number of males; (3) the biases that may arise from using a convenience sample (e.g., ease of access and less diversity of participants).

In terms of the study's strengths, it is worth highlighting that it includes the thoughts and ideas of students, teachers, health professionals working in a school context (with different areas of basic training), and parents/guardians, allowing for a more comprehensive and multifaceted perception of CC. In addition, a qualitative approach allowed for a broader and more detailed view of students' well-being and academic success with CC.

The literature highlights the stigma and attitudes towards CC, the existing barriers to participation, and the importance of the school environment for the well-being of students with CC. In this study, we have gathered more detailed information on the mentioned aspects. By incorporating the perspectives of four key stakeholders for the well-being of students with CC, we enriched the collected data. Different participants gave us a global perspective on the most valued aspects. These findings provide valuable insights for designing and implementing interventions and strategies to promote the academic success and well-being of students with CC.



Conclusion

The findings of this study provide valuable insights into society's perception of adolescents with CC. Moreover, it sheds light on the specific obstacles they face regarding their educational pursuits and the characteristics of a supportive school environment that can facilitate their integration and promote their psychological well-being.

These study findings are essential for everyone involved in the educational context and for public policies that aim to improve the psychosocial well-being of students with CC. The results highlight the factors and school characteristics that can be enhanced to achieve this goal. Moreover, the study emphasizes the importance of educating society in general and educational agents, in particular, to reduce the existing asymmetries in attitudes and ideas towards adolescents with CC compared to those without CC.

It is crucial to increase awareness and educate students, both teaching and non-teaching staff, and parents or guardians about the unique characteristics and requirements of various health conditions. This sensibilization will contribute to the educational agents' empowerment in supporting students with CC in their daily challenges and managing and accepting their health conditions and associated limitations.

Effective communication and collaboration between students with CC, their families, schools, and healthcare professionals are crucial. Supporting these students requires a coordinated effort from everyone involved in their education. It is, therefore, essential to invest in human and material resources that maximise the support provided to groups at greater psychosocial risk, such as students with CC.

The findings of this study highlight the significance of providing support to families who often face difficulties in accepting their children's health condition and struggle with the lack of resources and support from schools or healthcare systems. Likewise, it is also essential to intervene with educational agents to increase their knowledge, strategies, and tools to tackle the various challenges associated with different health conditions. Finally, table 7 summarises the key recommendations and ideas for education, healthcare, and public policy based on this study.

Table 7

Key ideas and recommendations

Lack of information about CC in society in general and the school community in particular

- Promote health literacy in a preventive and interventional perspective, including the idea of health literacy in chronic diseases as a broader concept that integrates awareness and intervention aimed at attitudes towards CC and young people experiencing health conditions in this spectrum;
- Invest in specific training in the field of CC for teaching and non-teaching staff, maximizing their ability to respond to the increased challenges experienced by these students;
- Develop specific awareness-raising and health promotion activities on CC;
- Encourage closer collaboration between educational agents and health professionals, strengthening the exchange of knowledge and information.



Let's talk about chronic conditions: Clues for a school environment that promotes students' well-being and academic success - a qualitative study

The stigma associated with CC and its influence on the well-being and academic success of students with CC

- Develop prevention and intervention programmes on stigma and raise awareness among students, educational teams, and society in general about the different forms of manifestation of CC-associated impacts;
- Promote the clarification of the concept of CC in order to demystify prejudices that often lead to the stigmatisation and exclusion of adolescents with CC;
- Develop programmes/interventions to promote skills in a school context involving students and educational agents that contribute to reducing stigma and integrating students with CC.

Importance of the characteristics of the school context for the well-being and academic success of students with CC

- Listen to schools about their needs and involve educational stakeholders in the active search for solutions;
- Invest in the development of school context assessment tools that allow school policies to be adapted to the actual needs of students;
- Invest in the creation of a health office in a school context, equipped with a multidisciplinary team, which allows for closer monitoring and support for students with CC, educational agents, and parents/guardians;
- Strengthen communication channels between the school, the family, and the health professionals, considering the importance of viewing CC from an ecological and multifactorial perspective.

The need to promote the participation of students with CC in the school environment

- Evaluate the physical and architectural characteristics of schools in order to make the necessary adjustments to accessibility conditions to ensure that students with health conditions associated with mobility problems can have the same opportunities as their peers;
- Adapt curricular and extracurricular activities to the needs of students with CC, considering the increased difficulties experienced by these students (e.g., attendance, participation, integration);
- Promote the involvement of students (with and without CC) in identifying and seeking solutions to the academic context, thereby increasing their social and civic participation. The importance of giving a voice to all students is reinforced, with a particular focus on those with CC. It is essential to hear their experiences and difficulties through their voice in order to move towards public policies and responses that are increasingly adapted to their needs;
- Focus on the potential of students with CC rather than their difficulties to promote their positive development and school participation.

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