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Perceptions and Experiences After Participating in a Two-Year Outdoor Adventure Programme

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Abstract

Physical activity levels are alarmingly low and new strategies must be adopted to prevent this trend. This study focuses on examining the impact of an outdoor adventure education programme on adolescents. The participants were 75 adolescent students aged 12–14. The programme lasted two school years. Students participated in extracurricular schoolyard outdoor activities and outdoor adventure activities conducted during the two one-day and one four-day trips in both school years. A qualitative methodology was used with data collected using semi-structured interviews. At the end of each school year, 12 students were interviewed. Data analysis revealed that the programme promoted basic psychological needs. More specifically, adolescents reported that schoolyard activities and outdoor adventure activities promoted their satisfaction with autonomy, competence and relatedness. Interestingly, the programme gave girls the autonomy to choose activities that promoted their competence and interaction with peers in a better way than a typical PE lesson. Modifying existing curricula with innovative practices or planning new ones could improve the general quality of life.

Keywords: Intervention, outdoor adventure education, physical education, well-being

Introduction

In recent decades, levels of physical activity (PA) levels have declined dramatically for people as they get older (Riddoch et al., 2004; Troiano et al., 2008). The World Health Organisation (2007) and researchers (Fox et al., 2004) proposed that PE can act as an important facilitator for promoting PA. During adolescence, a variety of biological and psychosocial changes take place, which is related to the development of attitudes towards PA (Aaron et al., 2002; Backes & Bonnie, 2019; Malina, 1996). For this reason, school-based interventions at this age could essentially benefit the promotion of PA and fitness, as well as the adoption of healthy lifestyles maintained into the future (Bélanger et al., 2011). One of the most fruitful theories applied in the educational context to examine the most profound reasons why people participate in PA or not is self-determination theory. According to this approach, the satisfaction of three basic psychological needs (autonomy, competence and relatedness) facilitates the social and personal prosperity of persons or groups (Ryan & Deci, 2000). Student motivation is strongly determined by satisfaction of their needs, which regulates their behaviour (Brandt, 2005; Deci & Vansteenkiste, 2004). The psychological atmosphere of the lesson created by the teacher affects the motivation of the students, and

a lesson that gives students the ability to make their own decisions results in greater satisfaction and interest (Treasure & Robert, 2001). Additionally, the right to choose through the design of collaborative activities promotes student interaction and satisfaction (Murcia et al., 2009). Therefore, students are psychologically encouraged and develop a high state of physical and mental strength to make their capabilities known to their peers. Furthermore, they consider themselves competent to do something well and that it has a noticeable effect on their actions (Ryan & Deci, 2002). Relatedness is also vital because it develops when they get on well with their peers and are socially connected to others (Deci & Ryan, 2000). In PE, group activities satisfy the need for interaction. Sharing experiences with others helps students develop a sense of being effective in their environment and caring about others. Hence, building meaningful relationships can promote relatedness (Kilpatrick et al., 2002; Murcia et al., 2009).

Student performance is enhanced because their perceptions of autonomy, competence, and relatedness have a significant impact on their motivation during the PE lesson (Black & Deci, 2000). Satisfaction of the three basic psychological needs has a great impact on positive attitudes toward PE, which empowers their participation and, possibly, their level of fitness (Murcia et al., 2009). Fulfilment of basic psychological needs enhances the appreciation of adolescents for PE (Vallerand, 2007) and can promote their participation in PA and the development of positive attitudes toward healthy lifestyles (Ntoumanis, 2005; Standage et al., 2003; Standage et al., 2005).

However, the findings of one study indicated that a typical PE lesson can reduce children's independence. Moreover, a lack of excitement or enthusiasm is encountered quite often. Students do not perform well in PE and/or encounter many obstacles to developing positive attitudes towards PA and socially interacting with peers (Hyndman, 2017). Gender also plays an important role in student participation in PE. Boys and girls have been found to see their engagement with PA from different perspectives. Boys, especially at younger ages, are more excited about competitive activities than girls, who are more socially entertained (Chancellor & Hyndman, 2017; Hyndman & Chancellor, 2015). By contrast, adventure education inspires adolescents to develop positive behaviour and encourages them to overcome fears or doubts. Challenging PA that involves students in teamwork tasks promotes a different type of long-established PE lessons and alternative educational approaches to offer knowledge (Lund & Tannehill, 2014). In this way, they are better prepared to face adversity, choose the best solutions and see life from an optimistic point of view. Adventure education refers to many kinds of outdoor activities that involve activities, from survival techniques and craft to rafting, kayaking, rock climbing and canyoning. This type of learning approach helps young people to develop self-confidence, overcome their fears and believe in their abilities so that they are able to deal effectively with difficult-to-manage situations. Their attention is not distracted from classroom lessons and only positive thinking and personal development can be achieved through practical and active learning (Thomas, 2017).

Furthermore, in relation to well-being and the transition from adolescence to adulthood, outdoor adventure activities increase levels of physical and emotional health (Kjønniksen et al., 2008). In an educational setting, outdoor adventure activities have been related to the development of autonomy, competence and relatedness of students due to essential experiences in the natural environment. This kind of motivation establishes constructive behaviour for positive attitudes towards physical activity in order to establish future well-being (Sproule et al., 2013). Outdoor adventure activities favour autonomy because adolescents can actively participate in decision-making when dealing with adversity (Garst et al., 2001; Santos et al., 2020; Sibthorp et al., 2008). The feeling of choice when taking risks offers pleasure and promotes social inclusion through the development of relatedness (Gull et al., 2018; Siegel & Fryer, 2017). Furthermore, PA in a natural setting offers satisfaction, fosters euphoria and harmony in the human body, and develops creativity as well as communicative and collaborative skills (Crain, 1997; Fjørtoft, & Sageie, 2000; Moore & Wong, 1997). Compared to children in the classroom or traditional schoolyards, those involved in outdoor activities are less anxious, more cooperative, more creative, more cheerful, and more focused on their tasks (Dennis et al., 2014). Physical and psychological benefits are obtained with outdoor entertainment while interacting with peers. In this way, providing more opportunities for interaction outdoors enhances student effectiveness in dealing with other people, which will be an essential social tool for them in the future (Hyndman & Wyver, 2020), and favours the development of cooperation and affiliation among participants.

In Greece, according to the detailed curricula, Physical Education aims to strengthen students' health, teach motor skills, and develop a positive attitude by promoting lifelong exercise. Through the kinetic content, the aim is to develop positive social interaction, respect and acceptance of diversity, in order to eliminate any form of exclusion. The lessons are intended to be student-centred, allowing students to develop their initiative. In this way, students are given autonomy, which favours their internal motivation and develops positive attitudes towards exercise and healthy habits. Outdoor adventure activities are not part of the standard curriculum. Such activities can be planned to complement experiential Health Education programmes conducted after school hours as organised extracurricular activities.

Intrinsic motivation is fostered when autonomy is adjusted to contextual circumstances (Ryan & Deci, 2000). Interestingly, an outdoor programme that provides female adolescents with the choice of the hiking activities in which they prefer to participate appears to empower their intrinsic motivation. Due to this autonomy, girls were more likely to be self-regulated and highly motivated to participate in PE lessons (Prusak et al., 2004).

The motives and time allocated to physical activities is increased when a programme combines adventure learning and adventure education (Badau et al., 2014). Sproul et al. (2013) concluded that an autonomous supportive atmosphere and internal motivation, as well as a sense of capability and efficiency, were enhanced in a 12-day project. Additionally, Sutherland and Stroot (2010) found that the functionality of group interaction was improved after rock climbing on a three-day trip. Stuhr et al. (2015) expressed the opinion that a curriculum based on adventure learning could favour the development of intrapersonal and interpersonal relationship skills. The plans of specific educational procedures in green environments showed that children can build more successful relationships, adapt to the social environment, adopt communication techniques, and accomplish tasks effectively. However, more in-depth elements of outdoor adventure education need to be analysed to obtain more precise results (Becker et al., 2017).

From the above, it can be argued that there is not much research evidence to support the idea that incorporating outdoor adventure activities into the main curricula could enhance the well-being of adolescents. The initial interrogation is either whether or how adolescents would deal with environmental demands personally and socially. As outdoor spaces offer a high sense of autonomy, are adolescents self-directed to act and create or not? Are there differences between boys and girls in the programme?

The purpose of this study was to record their experiences and interpret their emotions after participating in outdoor and adventure activities so that their basic psychological needs can be assessed. An intervention programme could reveal the potential motives and emotions of adolescent attitudes related to PA for their personal and social development. In this case, drawing on adolescent experiences through interviews is advantageous compared to using quantitative data. The main advantage of this method is that it allows questions to be adjusted in a way that they are suitable for each participant, resulting in more reliable documentation and conclusions (Creswel, 2009; Flick et al., 2004).

Method

The design of this study was based on ontological relativism and epistemological constructionism. According to this approach, there is no objective truth for a specific phenomenon, and each person may construct his/her subjective understanding of a specific phenomenon (Sparkes & Smith, 2014). Consequently, researchers should identify and present subjective realities through quoting research participants (Creswell, 2016) and 'understand and interpret the world from the point of view, favour a hermeneutical and dialectical approach (Sparkes & Smith, 2014, p. 13). Therefore, the adopted methods (i.e., participant recruitment, interview design, data collection, and analysis) are based on ontological relativism and an epistemological constructionist approach. A secondary school in the city centre of Athens, Greece was selected to run the outdoor adventure programme. This school could support more innovative educational programmes due to a conducive legal framework. Furthermore, students were enrolled in this school from different areas of Athens and come from different social and economic backgrounds. The first author officially informed teachers and students about the purpose of the study and the principles of the outdoor adventure programme. An invitation was addressed to all students of this school. Then written consent forms were obtained from parents/guardians and participant students. The students were also informed that they could withdraw from the programme at any time by informing the researchers. The total number of students enrolled in this school was 86. However, 11 students did not participate in at least one of these trips and were therefore excluded from the study because they could not share their experiences of the programme with the researchers. Therefore, 75 students participated in all activities of the outdoor adventure education programme and qualified potential interviewees. All students voluntarily participated in the survey. Participants were classified according to their gender, grade and age so that a wide range of experiences was covered and essential information could be collected. Consequently, twelve students (six boys and six girls) were randomly selected and voluntarily interviewed. According to Guest et al. (2006), twelve interviews should be adequate to achieve data saturation for homogeneous research.

The programme

The programme lasted for two years. Each year, the programme was presented to the students in two phases. The first phase took place in the schoolyard. More specifically, extracurricular activities (after the typical school schedule) were organized once a week for eight months. The students were free to choose from a variety of outdoor activities and participate in one of them. Outdoor activities included the invention of games in small teams with or without the use of the compass, the creation of choreography, and planning a workout session. Regarding the invention of games, three different groups were

formed and each group's task was to invent three games that combined various physical and mental skills, such as strength, agility, stamina, speed, reaction time, anticipation, and perception. Once per month, each group presented a game, setting out its rules, and the other two teams played it. The rules or limitations (time, repetitions, minimum score, place, or hidden object to be found) were set by the inventors, and the goal was for all tasks to be completed within the time limits or in the right way. Students could use the sports equipment (ropes, cones, different types of balls, scarves, mattresses, rings, etc.) provided for the PE lesson. The school PE teacher supervised the activities.

The second phase of the programme included three different school trips during which students could participate in outdoor activities. The schedule of activities was organised by the researchers and carried out in collaboration with the PE teacher and experienced certified instructors. More specifically, during this phase, students could participate twice in a one-day trip and once in a 4-day trip. On the first one-day trip, they participated in rafting (second level of difficulty) and an orientation game with a compass. On the second trip, they participated in horizontal caving, rock climbing, and rappelling. Alternatively, during the 4-day trip, they participated in rafting of the third difficulty level, canyoning, hiking, and orientation games. All participants participated in rafting and canyoning, as well as orienteering games, at the same time. For the rest of the activities the students were divided into groups of 10 individuals and performed them one after another to avoid waiting too long, becoming bored and wasting time unnecessarily. During orientation games, they could improve their navigational skills, developing communication and cooperation skills while being physically active. The first one-day trip took place during the one-month programme, the second in the middle of the programme, and the four-day trip at the end of the programme.

Adventure programming consists of four fields: recreational, educational, developmental, and therapeutic. The recreational field involved learning a new skill while enjoying an activity like canyoning or rafting. The educational field aimed to foster collaboration, enhance relatedness between the team members and provide confrontation resolution experiences, as well as develop critical thinking through seeing things from a different perspective. The development aimed to improve behaviour through interaction and establishing trust between peers. The main goal was for all new skills to be be embodied in the aspirations of their own lives (Priest & Gass, 2017).

Interview design

Following Patton's recommendations (2002), a semi-structured interview guide was designed. The interviews were grounded in phenomenological narratives to explore student perceptions and experiences of the programme. The advantage of this is flexibility which could help participants better share their opinions and give researchers a better and in-depth understanding of their perspectives (Sparkes & Smith, 2014). The interview revolved around student experiences with the programme and included the following questions: (a) What was the reason you decided to participate? (b) Did you enjoy the activities? (c) Did the programme make you feel better about yourself? (d) What effects (psychological, physical, and emotional) did you notice on yourself? (e) Did you realise you had an impact on relationships between peers? (f) Do you think this programme met your needs and why (not)? (g) How important are these activities compared to PE lessons?

Data collection

Qualitative data were collected at the end of each school year. The interviewer was a trained Ph.D. student, and the interviews were conducted in school classrooms or the gym so that students could feel comfortable in the physical environment. Data were collected during a formal discussion after arranging an appointment with each participant. All interviews were recorded digitally and each one lasted around 20 minutes. Some students needed more or less time because they had to be encouraged to enter into an open discussion. The interviews were then transcribed by the lead researcher for data analysis. Pseudonyms are used to ensure the anonymity of the participants. Participants' quotes were translated into English.

Data analysis

NVivo software was used in the data analysis process. Following Braun and Clarke's (2006) suggestion, a thematic analysis was conducted. More specifically, data analysis included the following phases. First, two researchers read the transcripts for familiarity and kept notes for ideas that should be taken into consideration during data analysis. The researchers independently produced the initial codes. At the end of each day, researchers examined the extent to which the codes reflected a common understanding of the concepts. Furthermore, emerging codes were presented to the doctoral supervisor who served as a 'critical friend' and could propose alternative perspectives or interpretations of the aforementioned codes. In the next phase, the two researchers, after completing the coding process, attempted to identify potential themes and integrate the codes into the appropriate theme. During this phase, the role of the 'critical friend' was to suggest which of the proposed themes represented the code content. Consequently, a review and refinement of the themes took place.

Results

Students' experiences after the first year of the programme

The students revealed that schoolyard and outdoor activities promoted satisfaction with their autonomy and competence and, indirectly, their gradual sense of getting along with peers. In adventure activities, no matter whether the risk was high, their feeling of autonomy in whether or not to participate offered them excitement and satisfaction in trying hard and overcoming adversities.

Autonomy

Regarding schoolyard activities, the structure of the programme encouraged students to feel autonomous and experience satisfaction. In the schoolyard, while involved in play activities of their own choice, creating outdoor games, choreographies or designing orientation activities, their reports revealed that the structure of the programme improved their self-efficacy. Providing them with the opportunity to choose or design activities stimulated their enthusiasm to try harder and satisfy their need for self-government because they felt free to act outside of the predetermined PE regulations. Specifically, Paul stated: 'I was satisfied with having choices to deal with new motor skills.' Elena responded: 'To express freely what I think or want to do was really exciting.' Similarly, Anastasia claimed: 'I liked the opportunity to act, as I wanted to plan during outdoor activities feeling no restrictions like in PE' and Georgia mentioned, 'The choice to deal with dance choreographies helped me decide for myself and not just follow exact rules all the time in PE lessons'. Kate said 'My own decision to do outdoor dance, which suited my nature more, made me happy'. Paul added, 'I enjoyed being free to choose' and Peter noted, 'I liked proposing activities'. Finally, John noticed, 'I was satisfied to feel independent, to discuss what to do and not listen to what to do' and Anastasia stated, 'It was nice for us to create our games autonomously in the schoolyard and play them later with other teams.'

Similarly, the students' reports revealed that their participation in outdoor activities led them to experience autonomy. The challenge of choice diminished the pressure of 'you must do it' in other learning procedures. Despite being continuously observed by the instructor, the students felt liberated and galvanised to learn by doing, which increased their motivation and happiness. Kate responded: 'My own decision to do that made me happy.' Peter noted, 'I liked having control in my own hands', and Elena put it in another way, '...independence.' Mary said 'I had the opportunity to act on my own' and Georgia added, 'I decided to do... I liked that'. 'John commented, 'As things became more and more adventurous, I had the power to take action' and, similarly, Alex answered, 'The ability to make up my mind was a joy... interesting things beyond the regular PE lesson'.

Competence

Student statements suggested that, as the programme was progressively implemented, they felt competent and important among their peers. Having completed activities made them feel more efficient and qualified to act. Kate said: '... I feel more capable now and the relationship with my teammates is much better.' Paul said, 'Others appreciated my abilities … I felt wonderful'. Peter said 'I proved that I could contribute to our team.' Georgia said 'I feel more competent, and my friends see me better... In the programme boys and girls were the same... something that I had not perceived in PE lessons'. Kate said: 'I feel worthy to belong to the team.' Jason agreed with the previous statement, 'Now my friends know that I have capabilities' and Paul added, 'I don't feel inferior anymore, as I can help my teammates'. Peter noted '... now I have a deeper knowledge of my skills and my friends believe more in what I can do'. John noticed: 'My teammates expressed their trust in my abilities, and I feel important.'

Similarly, the students said that dealing with the challenges of outdoor activities helped them improve their self-confidence and develop feelings of competence. John said 'After I accomplished all the rappelling descents and encouraged the other guys to continue, I felt valuable'. Sofia replied: 'I felt useful for my team… perhaps because this kind of activity does not promote rivalry like in PE lessons'. Anastasia replied: 'After so many adventure activities that I have done, I feel more physically, mentally and psychologically capable'. Jason put it in another way, saying 'I believe more in myself by helping my team in the orientation games'. Anthony commented, 'Others estimated my power in rafting, making me feel special.' Georgia said: 'I did my best to help my team do things and I feel important to others.' Alex referred to 'Others' trust in my capabilities made me feel special' and Kate responded, 'Being good at leading in horizontal caving led to acceptance by my teammates'.

Relatedness

Finally, the students reported that both schoolyard and outdoor activities met their need for relatedness. More specifically, they stated that they overcame communication difficulties because they considered themselves to be more connected with their peers. Their interaction led to the development of a warm atmosphere. Sofia said 'Now, I feel comfortable with other children doing things because the way this programme was structured favoured both girls and boys, and not only boys like in school lessons' and John noticed, 'Feeling acceptable, I collaborate better with others'. Elena added: 'After we managed to understand each other, we have been working efficiently' and Mary commented: 'With time, our relationships became warm'.

Similarly, while experiencing outdoor adventure activities, students seemed to profit from their relationships

with their classmates. Their relationships improved and they seemed to deal better with team conflicts thanks to the development of trust and respect. Paul said: 'I started being more optimistic'. Group activities built strong bonds of connection between peers. Sofia said, 'I made new friends … I got closer to others... we trusted each other' and Mary went on to say, 'After the outdoor activities, I felt connected to other kids because we started sharing common interests.' John put it another way, saying, 'I feel good with them as we now respect and listen to each other'. Paul noted: 'Dealing with each other has been improved thanks to teamwork... There are no disputes' and Anthony added, 'Teamwork made me more related to others... there aren't too many disagreements anymore'. Anastasia said: 'I built stronger relationships with my teammates, discussing all matters now'. Finally, Alex said, 'I got closer to other children ... we respect each other, and Georgia said, 'I made new friends and I got on well with them... There is trust and respect among us... I feel closer to them as we all managed to succeed, especially in rafting'.

Student experiences after the second year of the programme

The same students participated in the programme for two consecutive years. During these two years, the programme structure did not change. More specifically, the schoolyard programme continued to run in the same way and included choreography creation, planning of workout sessions, and games with compass orientation based on teamwork and creativity. Similarly, one-day trips and four-day trips were conducted for each of the two years. During these journeys, students could participate in outdoor and adventure activities such as white-water rafting, canyoning, rappelling, flying fox (aerial passage via a pulley suspended on a cable), canoe-kayaking in the river and the lake, wall-climbing, hiking, water-biking, (hydro-cycle), mountain-biking and sailing. All students were interviewed after completion of the two-year programme. The researchers posed the same questions that had been answered after the first year of implementation. Data analysis revealed the same themes. Student statements suggested that the programme helped them become happier thanks to the environment of autonomy they provided and their ability to make decisions concerning their next creative steps. Their participation in the programme promoted a feeling of competence. The programme also helped them connect with other classmates and even develop close friendships.

Autonomy

The students stated that their participation in school and outdoor activities helped them feel autonomous. Specifically, in relation to the schoolyard, Peter said, 'Following the programme, I felt free to choose and organise things', Elena continued, saying, 'The sense of freedom to create was vital for me and I did not feel trapped like in the PE lessons following specific activities to improve my fitness', while Anastasia suggested, 'The flexibility to do things that satisfied me was the main reason that induced me to participate and do my best in the programme'. Paul noted, 'I had the opportunity to escape the tedious tasks by following my choices' and Kate mentioned, 'I was able to be in control of my actions feeling joy and enthusiasm... no compulsion to do the specific activities of an ordinary PE lesson.' Finally, Anthony commented, 'I feel free control from outside to do things' and Mary added, 'I don't depend on other people to act because I can choose... I feel more determined to make it... the challenge to choose made me feel stressed and more easily focus on my purpose'. Similarly, Paul noted: 'My right to choose my active participation in canyoning, flying fox and climbing was an essential need for me to satisfy". Alex said, 'It was a big thing to direct my own life in adventure trip activities' and Elena added, 'Performing according to my interests like rappelling and canyoning was freedom'. Sofia said 'It was a state of being free from the agitation caused by the obligatory tasks in my everyday life while rafting and playing an orientation game' and Paul added. 'I had a sense that I acted according to what I considered valuable to me when I rafted and descended the waterfalls.'

Competence

After the second year, they believed more in themselves and felt that they had the right qualifications to handle any situation. Now they are convinced that they can handle things on their own, putting aside any doubts about accomplishing things because they feel competent. They are considered to have qualitative knowledge and skills to do something well without being rejected by teammates.

Peter said: 'I had no fear of trying because I felt worthy.' Georgia noted: 'I can now act on my values, and I don't hesitate to try, like I did before, because I have faith in my abilities... In PE lessons it's difficult for girls to win... in the programme girls can do things as well as boys', and John added: 'I was not afraid to make mistakes in activities because I am sure that I am qualified'. Elena said: 'The activities that I experienced helped me feel important in my team... I had never had this opportunity to prove it in PE lessons because strict rules always favour boys.' Anthony said, 'My value was recognized, and I feel competent'. Alex said, 'I consider myself to be suitable for the team' and Sofia stated, 'Now I can assume more responsibilities as I feel worthy'. Paul said 'I felt more certain of myself and more valuable for others' and Kate said, 'I was able to help my team create a nice choreography outdoors'.

Dealing with adventure activities improved their self-belief in managing things and their feeling of being able to contribute to their teams. The two years of experience they had reinforced their feeling of being certain in the things they do. Mary reported: 'After so many obstacles that I have overcome, there is no mistrust in myself to manage things and to prove my value to my teammates … on the contrary, in PE lessons girls do not have this ability because strength and speed favour boys who always lead activities or games'. Paul noted: 'I am valuable for my team … I did my best in orientation games.' Kate said: 'I strongly believed in myself to guide my team to solve the riddles after the orientation game while in the forest park'. Elena responded, 'I experienced dealing with adventure difficulties and I feel more dynamic in doing things... I did not have this opportunity to show my dynamism in school lessons as boys are favoured to prove their fitness', and Peter added, 'I feel full of energy to handle various situations … the challenge opportunity made me stronger to finish tasks and feel good about myself'.

Relatedness

At the end of the second year of programme implementation, student relationships were harmonious. Their feeling of being connected seemed to be very good, as they interacted effectively in a cooperative mood. They all seemed to have built closer relationships and developed a cohesive atmosphere that promoted relatedness. Elena noted: 'After having spent so much time with my teammates I am very connected with them … unlike the usual PE lessons, these activities released my creativity'. Peter continued: 'Things went unexpectedly well after our first meeting almost two years ago' and Alex added, 'We now care about each other because we feel a great power of connection'. Georgia said, 'I work perfectly with all my teammates, who share their worries because we trust each other'. Similarly, Anthony commented, 'The atmosphere between us is amazing every time we meet each other at school or outside school'. Sofia continued, 'Our strong bond continues after school because we have become very close friends.' Finally, Paul said, 'Going through such collaborative experiences led me to trust new people and make them my friends'.

Acting outdoors promoted a cohesive atmosphere and everyone seemed to have developed closer relationships. Friendship and respect were highly preferred. Anthony replied: 'We all loved to tease each other in rafting, without taking ot the wrong way.' John said: 'I made close friendships … I feel more comfortable trusting my group members' and Sofia stated, 'In the last year, we no longer had things to separate us anymore in adventure activities as we trusted each other.' Finally, Alex declared, 'We all acted as one … I would like to feel the emotion of belonging to a group with common interests in the future' and Kate added, 'We cared for each other because we feel very close to each other'.

Discussion

The purpose of this study was to explore the perceptions and experiences that influenced junior high school students to participate in a programme that included extracurricular outdoor activities in the school yard and outdoor adventure activities. Furthermore, as stated by the students, their participation in the programme after the first and third years of intervention gave them great happiness and satisfaction with regard to their basic psychological needs. Student behaviour is significantly influenced by their motivation due to the satisfaction of basic needs (Deci & Vansteenkiste, 2004; Brandt, 2005). Outdoor and adventure activities, such as camping, canoeing, trekking, biking, or similar activities have been found to support their needs and promote their physical and mental health. Getting involved with such activities in outside space or the natural environment contributes to well-being (Ceylan, 2020). According to Dettweiler et al. (2017), lower secondary school students satisfied their basic psychological needs at a high level after participating in an outdoor-experience learning programme. The outdoor experience offered them much more satisfaction than the indoor experience. Joy, collaboration and friendship enhanced autonomy, self-perceived competence, and relatedness so that behaviour was positively affected, leading to self-regulation. The time spent was a 5- to 6-day science lab experience in a national park, which included a two-day expedition. On the other hand, our study was closer to reality as it was conducted throughout the school year. Implementation was structured to take place at time slots anticipated by the law on educational programmes, thus, no holiday days were used.

The students reported that their participation in the programme boosted their autonomy. This finding is consistent with the suggestions of Hyndman and Wyver (2020), as well as Scarf et al. (2018), who claimed that the participation of students in outdoor and adventure activities empowered their autonomy. A rational explanation for the promotion of student autonomy after their participation in schoolyard activities could be the fact that following specific rules was not stressed, as they were provided with the autonomy to plan activities when creating their games. When settings are more diversified than typical ones, student choices are augmented, while their autonomy is enhanced. Students' active involvement in decision-making can encourage them to have control of their actions (Black & Deci, 2000; Sheldon et al., 2008; Shen et al., 2009; Guay et al., 2017). Outdoor adventure activities, in particular, promote greater autonomy, which

enhances making decisions and coping with adversities (Garst et al., 2001; Santos et al., 2020; Sibthorp et al., 2008). Although such activities such as climbing sound risky, the benefits for physical and psychosocial health – aside from wellness – are accompanied by the joy of recreation and the freedom to perform (Gull et al., 2018; Siegel & Fryer, 2017). Experiential education through outdoor adventure programmes appears to increase participants' expectations to a greater extent and regulate their behaviour when they are on a trip for at least three days (Garst et al., 2001). Our study reinforced this evidence because their satisfaction with regulating their decisions during the 4-day trip led them to make decisions based on their self-belief and to take the right steps to solve problems. Being away from home made them feel discharged from family control and that they played an active role, taking reality into their own hands.

Student participation in this programme appeared to empower faith in their abilities and the perception of playing a significant role in their team. The structure of the programme (i.e., planning activities and setting their own rules and limits) probably increased their sense of independence and made them develop self-confidence. In this way, they satisfied their need for competence, which could help them act dynamically in individual activities and interactively in teamwork. Moreover, it could work as an opportunity for their overall development in managing situations, being recognised by adults, and feeling appreciated and gaining more respect for their thoughts and decisions. Despite many adversities, participation in outdoor and adventure activities lowered students' fear of failure and increased their confidence in their worthiness. Strengthening their own belief in success was strongly influenced by the challenge of making choices. Due to the notable experiential differences, outdoor and adventure activities promote feeling good about yourself and manage to satisfy needs and feelings (Sproule et al., 2013). In general, outdoor education contexts increase self-confidence and increase faith in one's ability to confront adversities (Barton & Pretty, 2010; Kardjono, 2017; Mutz & Müller, 2016; Sproule, 2013).

Additionally, interaction through this programme improved students' relationships with peers, supporting the findings of previous studies on the effectiveness of such activities in bringing adolescents closer to each other (Ceylan, 2020; Cooley et al., 2013). Due to experiential outdoor and adventure activities, closer relations emerged as a result of peer communication, collaboration, and respect for each other. Their acceptance by the group members urged them to be socially supported and led to positive behaviour. Therefore, the perception of team spirit led to the development of trust, and positive attitudes were formed that reasonably regulated adversities or disputes. Outdoor adventure activities develop companionship, friendship and feelings of accomplishment that promote relatedness, which is an essential factor for well-being. Teamwork is considered an essential facilitator in creating a pleasant atmosphere and dealing with conflicts. It also empowers the social environment, bringing people closer and uniting them in planning and performance (Gass & Seaman, 2012; Martin & Wagstaff, 2012; Odello et al., 2008). Being involved in outdoor activities has more functional effectiveness with respect to adaptability, communication, and teamwork (Finn et al., 2018). Adventure activities encourage group acceptance and therefore significantly increase bonds between adolescents (Scarf et al., 2018). Students are provided with many opportunities to acquire experience in overcoming difficulties that arise from relationships with their peers (Hyndman & Wyver, 2020). Moreover, adventure or outdoor recreational activities have been positively related to the physical quality of life and relatedness (Mullins, 2014).

Adventure trips helped students develop self-belief in their abilities. After the four-day trips, they reported feeling more able to manage or carry out things. Being away from their families helped them to develop a feeling of importance among others, and this facilitated social inclusion, as the perceived social distances had been substituted by closer connections, resulting in harmonious relationships. Our finding complements previous studies (Beames & Ross, 2010; Garst & Baker, 2001; Sutherland & Stroot, 2010), suggesting that adolescents considered the four-day journey a sufficient period to adjust to the requirements and be socially integrated through creative interaction.

Interestingly, the girls reported that the structure of the typical PE lesson made them feel constrained. They believed that PE lessons focus on fitness and rivalry, giving boys prominence and making them seem superior to girls. At the same time, this suppressed girls' ability to express themselves. In this case, choice and creativity were suppressed. Previous study findings (Azzarito et al., 2006; Azzarito, 2009; Brown, 2000; Vu et al., 2006) showed that the context of PE works as a barrier, blocking female enjoyment and developing feelings of inferiority due to lack of skilfulness or the sense that some activities are appropriate for girls rather than boys trying to preserve their femininity. On the other hand, the activities of this programme allowed the girls to become autonomous, feel competent and interact better with their peers. This programme did not cause any lack of interest or enthusiasm. Girls were not constrained in showing their emotions while outdoors, and this fact enhanced their interest in participating in outdoor activities making them feel more satisfied (Clark et al., 2011). In our study, the girls who chose to deal with dance choreography outdoors were full of enthusiasm and dynamism. They took advantage of the opportunity to act autonomously. No perception of doing things beyond their femininity or feeling stressed because

of stereotypes was observed. The risk of being athletic to the disadvantage of being feminine or the pressure of stereotypical conceptions harms female adolescents' interest in physical education and makes them feel uncomfortable (Clark et al., 2011; Whitehead & Biddle, 2008).

Practical application

Revision or modification of old curricula with the integration of multidimensional educational practices setting objectives from a different point of view could act as a revitalising catalyst for the PE lesson. Notable results could be obtained when differentiation of traditional settings is applied. Quality of life would benefit from adopting healthy lifestyles that contribute to well-being and social inclusion in the long run. Such an educational strategy should frame the school policy as a priority for the future development of children and adolescents.

Conclusions

In conclusion, outdoor and adventure activities seem to satisfy the basic psychological needs of adolescents, promoting self-determination, as other studies have shown (Autry, 2001; Cooley et al., 2013; Davidson, 2001), as well as levels of physical activity (Lee & Ewert, 2013; Mackenzie et al., 2018). The freedom to be outside of the gym, the schoolyard, neighbourhood or the city, in particular, multiplies willingness to do physical activities. Perhaps the feeling of freedom in the natural environment satisfies their need to act autonomously. Consequently, the more autonomous they feel, the more satisfied they feel, and they are active. They also manage to respond better to environmental necessities, developing either personal or social skills (Hyndman & Wyver, 2020). Enriching school curricula with such programmes would enhance student well-being (Mackenzie & Hodge, 2020).

As everyday life "traps" people in an automated and sedentary life, new policies or strategies to improve the quality of life are highly desirable. Experiential education is the cornerstone of developing attitudes. Enhancing adolescent motivation is a critical factor for young people to form positive attitudes toward PA and motivate them to exercise in their future life as adults. The satisfaction of the basic psychological needs of autonomy, competence, and relatedness promotes a greater acceptance of such activities for the development of physical and social health. Therefore, such experience can play a significant role in the well-being of individuals and the fulfilment of group needs (Houge Mackenzie & Hodge, 2020; Lee & Ewert, 2013; Mackenzie et al., 2018).

Ethics approval and informed consent

The study was approved by the Ethics Committee of the Institutional Research Committee. Informed consent was obtained from all study subjects.

Competing interests

The authors report that there is no potential conflict of interest.

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