

Executive

# REPORT



Comparative Study



# Physical activity habits of hard hearing and deaf students

Physical Education at school plays an important role in promoting physical activity and sports. It is a practice that is intended to be lasting, promoting healthy lifestyles in order to combat sedentary lifestyle, obesity and deviant behaviors. Currently, the bilingual education that schools must offer to deaf students in the country's Sign Language and in written and / or spoken language requires the existence of support materials that are appropriate to the contents of the discipline and Studies have

been carried out comparing the levels of physical activity and sedentary behavior between deaf adolescents and their hearing peers (Li et al., 2018; Al-Rahamneh et al., 2013; Kurkova, 2016; Gispen et al., 2014; Xu et al., 2020). Deaf adolescents showed significant involvement in sedentary activities, about 10 hours a day, and levels of physical activity lower than those of their hearing peers. In addition, only a small percentage of the deaf met WHO's 60-minute /day physical prepared in a format that fits with the characteristics of these students. Research in the area

of deafness reveals the learning difficulties that these students have faced over the years. These difficulties, experienced in almost all academic areas, and also in the development of motor skills, may be due to the lack of instructions that are available to the deaf student in this mode of communication.

The PE class is, for many, the only place where they can experience and develop activity guidelines. Social inclusion is a predictor that positively influences the practice of physical activity among deaf young people, and that participation in activities after classes is an important way to help students comply with WHO recommendations.

Given the series of factors (personal attributes, social systems and engagement) that limit and influence physical activities, and the current problems related to lifestyles inappropriate to human genesis are becoming common to all humanity, including deaf students. Sedentary lifestyles, unbalanced diets, demotivation and lack of stimulation for the practice of physical activities, bring students to schools with low levels of physical fitness and, as Zaccagnini (2005) points out, with motor disabilities

often associated with obesity problems and, consequently, generating new sedentary cycles.


The practice of physical activity, the main objective of this report was to portray the physical activity habits of deaf/hard hearing (D/HH) students in the countries participating in Sportsign project, in order to identify i) sedentary behaviors; ii) the physical activity index and iii) the usual leisure activities in which deaf/hard hearing students spend their free time.

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PE at schools, there is a space for learning language concepts and for the development of Sign Language for deaf students. Positive experiences and effective communication in PE teaching can form the basis for regular practice of physical activities that promote health and well-being.

The sample of this study comprised 108 deaf/hard of hearing students, aged between 12 and 20 years, from schools in partner countries, Germany (n=25), Italy (n=23), Portugal (n=23), Slovenia (n=15) and Spain (n=22). Data are collected between February 2020 and October. Italy and Spain partners needed more time to collect data due to the severity of the Covid-19 pandemic in their countries.

Physical activity was assessed using a questionnaire that was previously determined to have good reliability with inter-correlation coefficients (ICC: 0.92 - 0.96) (Mota & Esculcas, 2002).



For the conclusion of this study in schools in partner countries, the questionnaire was presented in a face-to-face meeting, where the purpose of its application was presented, as well as an analysis of the terminology to be used to characterize the sample and the terms and concepts included in the questionnaire were clarified, so that there were no doubts and also to standardize the test application protocol. The meeting was attended by research specialists in Deaf Education, PE teachers for Deaf students and interpreters. After validating the questions and terminology to be used, all partners were involved in the following tasks: sample selection; translation of the questionnaire into their country's language and the administration of the test.

Descriptive statistics (mean, standard deviation, frequency, and percentage) were used to profile the questionnaire variables.

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### **Sedentary behaviours**

The average values of sedentary behaviors are between a minimum of 6.33 hours for students in Slovenia and a maximum of 8.64 hours spent by students in Germany. Sedentary activities were grouped into recreational activities (time spent watching TV / cell phone per day and time spent using the computer for recreation) and time for study activities (SAT) (time spent using the computer to work or study, and time generally spent sitting reading or studying). The sample groups spend on average between 2.12 and 4.5 hours a day on study activities and 3.52 and 5.12 hours a day on screen time (sedentary behaviors).

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### **Commuting to and from school**

More than half of Spanish students (54.5%) travel to school by foot or on a bicycle. Students from Slovenia and Portugal are the ones who use less of this active way of going to school, respectively 6.7% and 8.7%. On the other hand, Portuguese students are the ones who most use private transport, more than half the sample (56.5%) uses passive commuting (car or motorcycle). Public transport is used by 72% of students in Germany while 64% use the train in their journeys and 8% the bus or subway.

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### **The Physical Activity Index**

To obtain the physical activity index, questions concerning participation in organized and non-organized sports activities outside the school, the frequency and intensity of this practice, and participation in sports competitions were presented. These questions allowed answers on a Likert scale of 1 to 4 (3 questions) and on a scale of 1 to 5 (2 questions). An index was formed from the sum of the score obtained in each of the answers of the questionnaire, whose maximum value was 22 points. The index of physical activity obtained by each country was: Italia 15.4; Spain 13.6; Germany 10.2; Portugal 10 and Slovenia 9.6. points.

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### **Leisure activities**

To present the leisure activities selected by students, we used the percentage categories suggested by Cloes et al., (1997), where the leisure activities selected by the entire sample are grouped. Overall, students reported occupying their free time on activities ranging from using "Instagram / Facebook / Twitter / Snapchat / Whatsapp" (85.5%), to "Participating in art or other cultural events" (8.8%). The use of social networks and screen time are the activities most selected by students. The activities "chatting with friends", "watching TV", "doing homework or extra schoolwork", "helping with house chores (at home)", and "being alone (relaxing, thinking)" were selected by more than 60% of the sample. "Playing sports with a coach / teacher" and "playing sports without a coach / teacher" were selected in 13th and 15th position.

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### **Conclusion**

The intention of the study carried out was that of obtaining a description of a set of aspects related to physical activity habits and mainly to confirm behaviors and attitudes that are visible in our daily life. The partner countries that are part of this project will certainly find here relevant information that should be disclosed and analysed in schools by teachers and students. At the same time recognize the role of the school and PE class in promoting knowledge and sports culture to help deaf students understanding the effect of physical activity on their health and well-being.



# Sportsign



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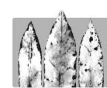
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