

Modern Media and Communication Tools and Their Impact on Physical Sports Activity among Algerian Children

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Abstract:

This research addresses the reality experienced by Algerian children through a descriptive analytical study using a questionnaire directed at the parents of children in the primary education stage. The aim is to determine the extent to which their children are inclined towards technological media and communication tools and their impact on their physical activity at home, as well as the extent of the child's engagement in physical and sports activities, whether in school or outside. The results reveal a significant percentage of children showing an interest in modern media and communication tools due to the amenities and entertainment options provided by contemporary life, including electronic games and media and communication tools. On the other hand, there is insufficient enthusiasm for physical and sports activities. Additionally, educational institutions, both schools and sports clubs, do not show a serious commitment to providing the necessary conditions and guiding children toward regular and continuous physical activity to achieve educational and healthy goals through the media role of the sports educator.

Keywords: Media and Communication Tools, Primary Education Children, Physical Sports Activity, Sports Educator.

1- Introduction and Research Problem:

Currently, the field of sports is considered one of the fundamental and essential areas in the lives of individuals and communities. Physical education and sports activities play a vital and active role in various dimensions to enhance and develop the lives of individuals and society. Physical sports activities, in their various dimensions, are important aspects of an individual's life, aimed at promoting human beings, equipping them with various motor skills and experiences that enable them to interact in their living environment. This, in turn, empowers them to work, participate in the development of their society, defend themselves and their nation, instills self-confidence, responsibility, and a

sense of cooperation, while highlighting their physical and motor abilities and potential. These activities are practiced in organized forms within schools through physical education classes, sports associations, and clubs for sports training, or informally through recreational physical activities. All of these forms hold a significant and distinctive place because they address every aspect of a child's personality, treating them as a unified entity physically, psychologically, and socially. They aid in the development of their abilities and the preservation of their mental and physical health.

When we talk about physical activity, we mean that individuals move and engage to interact with the environment they live in. However, with the technological advancements of this era, the physical space for human movement has shrunk, negatively impacting their physical behavior, health, and even their lives in general (Blain, H., Vuillemin, A., Blain, A., Jeandel, C., 2000). Thus, engaging in physical and sports activities has become a necessary and essential practice to aid an individual's physical and motor skill development, subsequently having a positive impact on their physical, psychological, and social health. Children need active play, movement, and physical effort to ensure their healthy and proper growth. However, electronic games and technological media have changed the lifestyle of many people, making them less active than before (WHO, 2015). This is where physical education, in its educational dimension (as a school subject or sports training at a club), intervenes to guide young individuals towards engaging in physical and sports activities, promoting their healthy growth across all dimensions of their personality and fostering good physical and mental health (Cogérino, G. et al, 2015).

- Previous Studies:

* A study conducted by Lakhdar Abbas and Allaba Brahim in 2021 titled "The Impact of Modified School Sports on Achieving Psychological Health for Elementary School Children (9-11 Years) from the Teachers' Perspective" highlights the importance of physical and sports activities in schools in achieving psychological balance and mental health. The study concluded that it is essential to provide suitable conditions by offering resources and facilities within educational institutions, as well as creating an appropriate atmosphere with expert guidance. This is necessary to ensure that all children, regardless of gender, level, or living conditions, have opportunities to engage in physical and sports activities.

* Study by Khaldi Mustapha and Challal Bahia in 2022 titled "Physical Sports Activity in Algeria in Light of Social and Economic Factors: A Field Study on Children Aged 5 to 17 Based on MICS6 Cluster Data" found that boys showed a greater interest in physical activity compared to girls, which can be attributed to

sociocultural reasons. Children in urban areas had more opportunities to engage in physical and sports activities compared to those in rural areas due to a lack of necessary guidance, material resources, and sports facilities in rural areas. Additionally, the study highlighted that the socioeconomic status of families also influenced children's interest in sports.

One of the recommendations from the study is to promote sports activities in the school environment, especially in elementary education, by emphasizing physical education as a mandatory subject, given that elementary schools are widespread throughout the country.

*The study by Derdoun Kenza and Lamtouri Fatima Zohra Imene in 2022 titled "The Reality of Educational Physical Sports Activities and Their Impact on Students' Motivation (A Comparative Study between Male and Female Practitioners and Non-Practitioners)" demonstrates that physical education classes in schools play a significant role in boosting children's motivation to engage in continuous and regular physical and sports activities. This motivation aims to achieve multi-dimensional goals, including physical, psychological, and social aspects, contributing to the upbringing of children and the formation of a healthy and balanced personality.

Based on the information provided, here are the following questions:

- * To what extent are children inclined towards modern media and communication tools, and how does this inclination impact their daily physical activity?
- * Does physical education in schools, within the framework of physical education classes, achieve its objectives considering the available material and human resources?
- * Are there adequate material and human resources for organized physical activities outside of school, such as sports clubs or recreational physical activities?

- The hypotheses:

- Children's inclination towards modern media and communication tools has a negative impact on their daily physical activity, making them less active.
- Physical education in schools, within the framework of physical education classes, is insufficient due to the lack of adequate material and human resources for effective guidance.

- The available material and human resources do not create an effective environment for organized physical activities outside of school, such as sports clubs or recreational physical activities.

2- The overarching goal of this study:

following the principles outlined in scientific research and reports from the World Health Organization advocating for raising awareness and providing guidance to those concerned with the upbringing and education of children regarding the importance of physical and sports activities for a child's growth and health, is to determine the extent to which elementary school children are inclined toward modern technological media and communication tools. Simultaneously, the study seeks to understand the impact of such inclination on their daily behavior by assessing their engagement in physical and sports activities, both within and outside of the school environment.

3- Defining the concepts mentioned in the research:

***The concept of modern media and communication means:**

These are all the means used in the technology of media and communication, accompanying the scientific, technological, and informational revolution that the world has witnessed in our present time. This revolution has brought many changes in lifestyle compared to the old methods. Despite the numerous advantages, modern media and communication technologies also have several drawbacks, which can sometimes be dangerous to individuals, society, and parents monitoring their children to avoid the risks of using these means (Dominique Youf, 2010). Hence, one of the main reasons for a healthy life is to overcome these negatives.

***The concept of physical sports activity:**

It is any physical or sports activity practiced by an individual during a specific period. The concept of physical activity has been widely discussed in scientific literature as an effort exerted by skeletal muscles, resulting in the consumption of the body's energy. The definition proposed by Caspersen in 1985 is widely accepted today: "A set of bodily movements produced by skeletal muscles and resulting in a significant increase in energy expenditure above resting needs" (Vuillemin, A. 2014). Each individual engages in a certain level of physical activity, but the quantity and type of activity are related to the type of work being performed, which can vary from person to person. Therefore, physical activity is defined by its duration, intensity, continuity, and the context in which it is practiced. It can be linked to various activities such as home-related activities (household chores, gardening, etc.), transportation-related activities (walking or cycling for commuting to work or school, etc.), work-related

activities (paid or unpaid), and recreational activities that may include physical and sports activities.

*** Characteristics and features of late childhood:**

Childhood, in general, is one of the most important stages in a person's life, during which an individual's future ability to interact with their environment is determined. Late childhood corresponds to the age when a child begins primary education, typically between 9-12 years old. This stage is characterized by physical, motor, psychological, and social growth. Despite the varying developmental theories and the focus on different aspects of behavior, these theories and studies emphasize the importance of play, physical activity, and movement in the child's growth, as engaging in various forms of physical and motor activity contributes to building the child's personality and maintaining their health. However, with the technological advancements of this era, physical activity and movement opportunities for individuals have decreased, negatively impacting their health and overall well-being. Therefore, engaging in physical and sports activities, especially for children, has become essential for healthy growth.

4- Methodological Procedures in the Study:

4-1 Method and Tools:

- **Research Approach:** In this study, we have relied on the descriptive-analytical methodology, which aligns with the nature of the subject and requires the investigation and collection of information about the reality experienced by the respondents:

-**The Sample and its Selection Methods:** We selected a sample of 80 individuals (45 males and 35 females) who are children aged 9-12 years and studying in the third, fourth, and fifth grades of elementary education. Questionnaire forms were distributed to parents through the school administration to answer the questions based on their children's statements. After collecting the questionnaire forms, 66 (43 males and 23 females) usable forms were accepted, and 14 were excluded due to not meeting the required response criteria.

-**Data Collection Tools:** The tool used to collect data for the field study is a questionnaire designed based on the theoretical background information that defines data collection methods and tools for assessing physical sports activity. The questionnaire consists of three main dimensions:

* The first dimension focuses on the extent of a child's inclination toward technological means and its impact on their daily physical activity to understand

the child's behavior in their daily life and how certain behaviors affect their daily physical activity.

* The second dimension revolves around engaging in physical activities at school within the context of physical education classes to determine if the child engages in physical activity adequately at school.

* The third dimension explores participation in physical and sports activities outside of school to ascertain if the child participates in physical activity in an organized manner (sports club) or through unstructured activities (recreational physical activities).

Statistical Tools:

After answering the questionnaire questions and sorting the responses for analysis and translation of the obtained results into numerical data, we relied on percentages to determine the response rates for certain questions. Additionally, the chi-squared test was used to study the statistical significance of some comparisons:

$$x^2 = \sum \frac{(fo - fe)^2}{fe}$$

Fo: The significant or observed frequencies.

Fe: The theoretical or expected frequencies.

4-2 Presentation and Analysis of the Results:

* The first dimension revolves around the extent of a child's inclination toward technological means and its impact on their daily physical activity. Through this, we aim to understand the child's behavior in their daily life and how certain behaviors affect their daily physical activity. The obtained results allow us to determine the amount of time spent in front of screens (television, internet, electronic devices, or smartphones, social media, etc.). On the other hand, it evaluates physical behavior and physical activity based on the child's behavior at home, daily commuting, and its duration. Finally, it helps identify the weight index, which provides an indication of the biological balance between nutrition and physical sports activity.

Among the behaviors that can lead individuals to be less active and even sedentary is the sitting posture, especially when a person spends a long time in a static position. It's important to note that children under the age of five should not remain seated for more than one continuous hour, and children between 5-17 years should not exceed two continuous hours (Tlili, H. et Joncheray, H., 2016). Sometimes, children spend extended periods in front of screens, whether for TV

programs, electronic games, or mobile phones. It's crucial to ensure that this duration does not exceed two hours daily at most (Vuillemin, A. 2014). The following figure illustrates the number of hours children spend in front of screens:

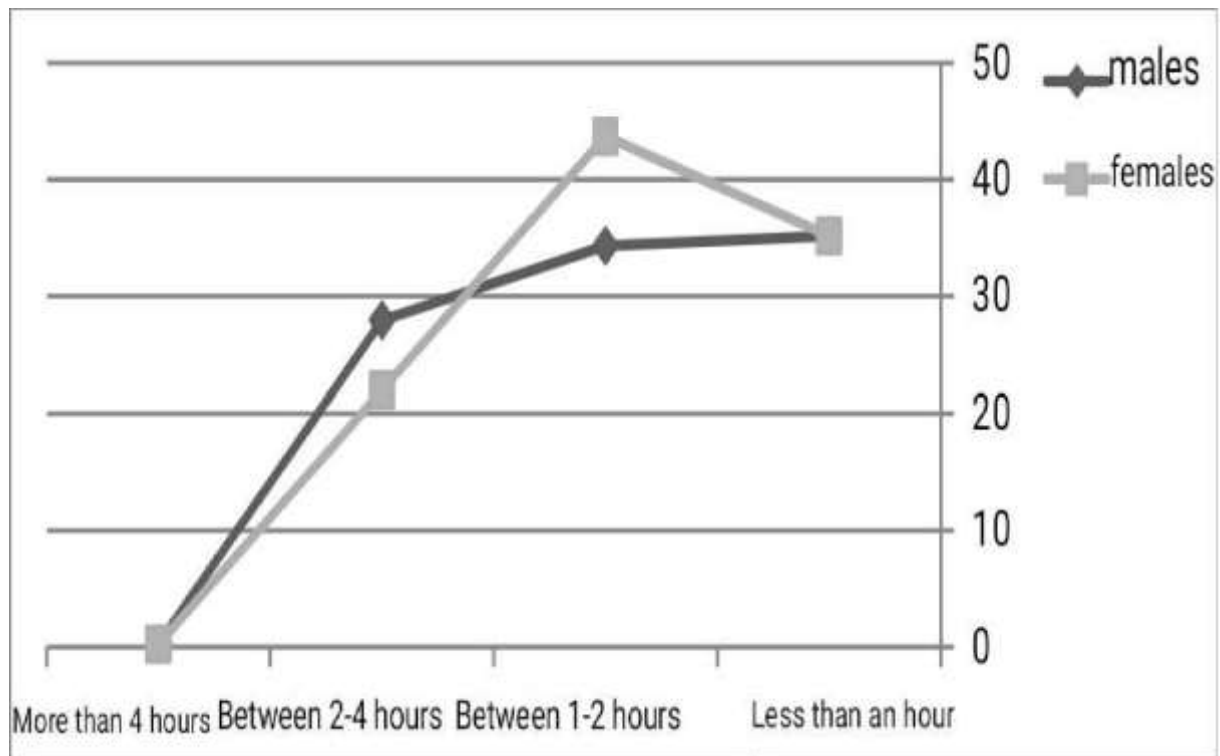
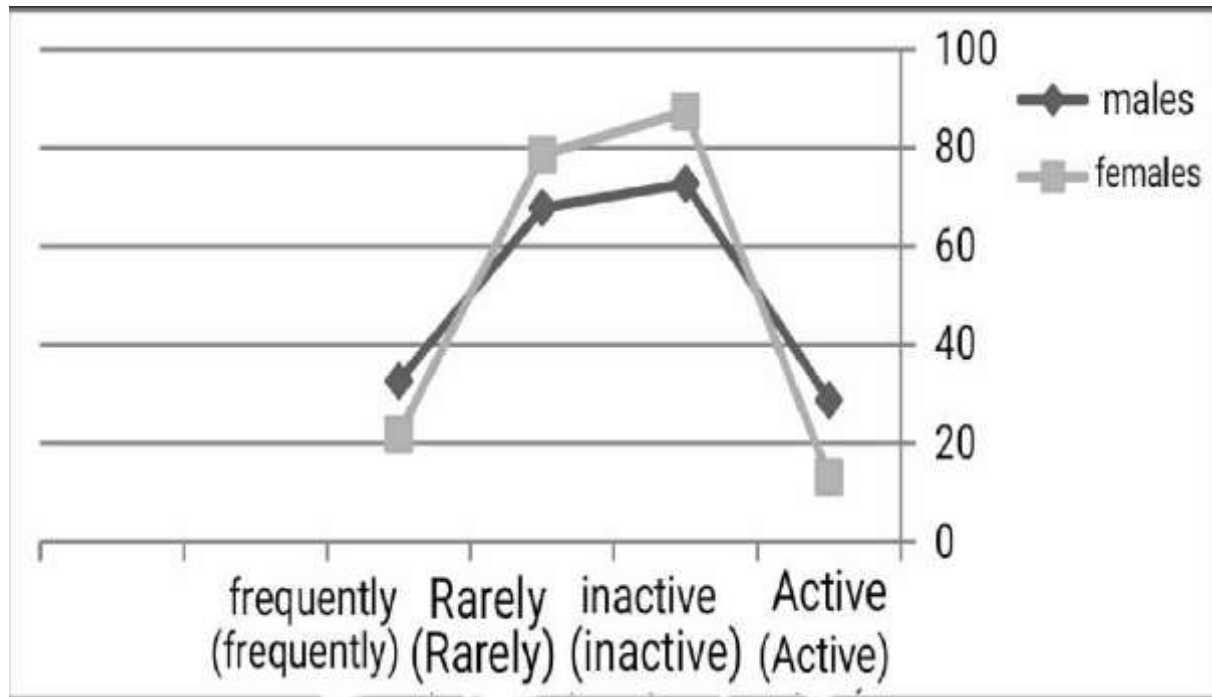


Figure 01: Represents the number of daily hours in front of the screen.

The figure indicates that according to most of the respondents, their children spend less than two hours a day in front of screens. However, a significant percentage (26%) of children spend between 2-4 hours daily in front of screens. This behavior is unhealthy, especially when a child spends their day sitting at school. Therefore, it is essential to utilize leisure time for more beneficial activities for both physical and mental health, promoting proper growth, physically, mentally, and socially, particularly in terms of physical and sports activities.

Understanding a child's behavior at home is essential for determining their level of activity and vitality or, conversely, laziness and inactivity. According to the results, most of the respondents (according to the parents' opinions) believe that their children's behavior at home is characterized by activity and vitality. This behavior has a positive impact on the child, as it teaches self-reliance in performing daily life requirements or assisting others around them in tasks such as helping a daughter with household chores or helping a son with certain tasks within the child's capabilities. However, a small percentage of children exhibit behaviors at home characterized by laziness and inactivity, such as spending long hours in front of screens (TV, electronic games, mobile phones). Active

behavior contrasts with behaviors characterized by laziness and inactivity, which are considered contributing factors to childhood obesity, especially when combined with an imbalanced diet.



The figure number 02: Active and Inactive Behavior among Males and Females.

According to the figure, it becomes clear that, based on the opinions of the surveyed parents, their children exhibit active behavior at home. However, there are differences between males and females, with males tending to exhibit less active behavior at home compared to females.

Despite walking under specific conditions (suitable weather conditions, an appropriate time frame relative to age, comfortable clothing without carrying a load exceeding an individual's capabilities) having health benefits, knowing the time frame a child spends on daily commuting is also important. Some studies indicate that walking in children is a natural physical activity, and they should aim to walk around 11,000 to 15,000 steps per day (Vuillemin, A. 2014).

Based on this, and through the data provided by the respondents, the average duration of 25 minutes of walking for daily commutes has been determined. This is considered a good indicator of daily physical activity for some children. The following figure illustrates the results for daily commutes:

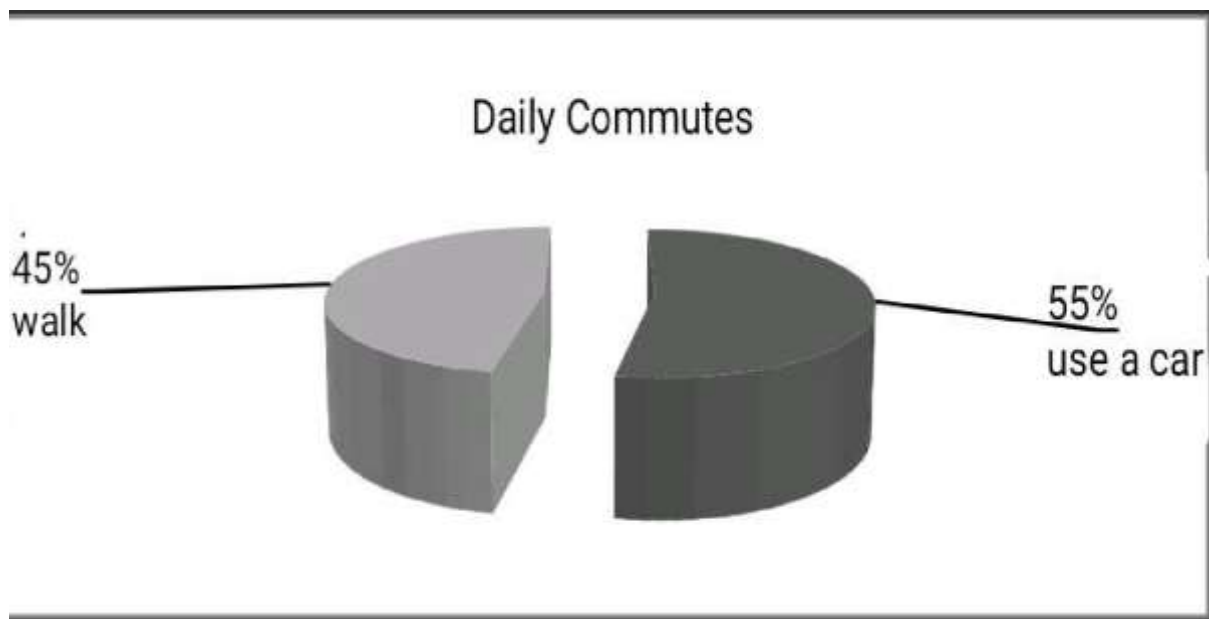


Figure 03: Identifies means of daily commuting.

According to the results, there is a significant percentage of children (55%) who rely on motorized means of transportation for their daily commutes. This means that the child does not exert physical effort during their commute, as some parents accompany their children by car from home to the school entrance. At the same time, there is a nearly equal percentage (45%) of children who rely on physical effort, especially walking, for their daily commutes.

A sedentary lifestyle is considered a negative behavior in an individual's life, characterized by low physical activity and prolonged periods of inactivity. When combined with an imbalanced diet, it can lead to weight gain and obesity, eventually deteriorating an individual's health status.

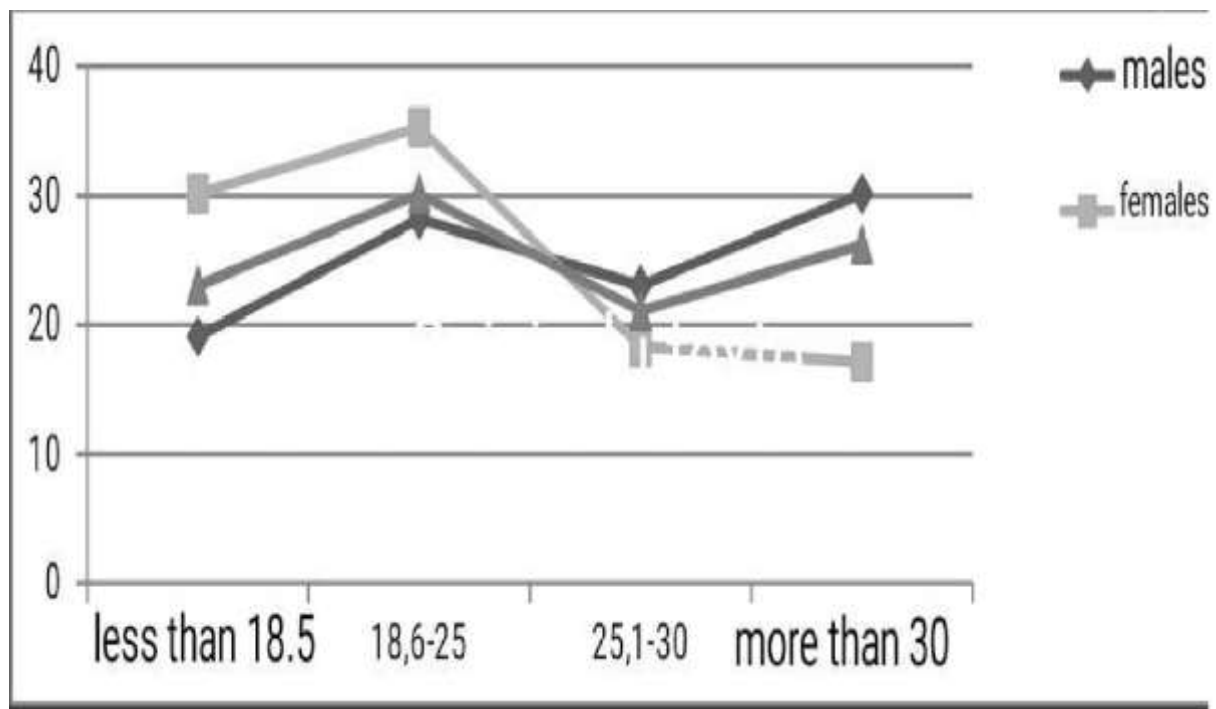


Figure 04: Determines the weight index for children.

According to the table, it is evident that almost half of the respondents (47%) show an increase in weight, meaning they exceed the normal range defined between (18.6-25), and among them, (26%) exceed the index (+30), classifying the child as overweight. This condition often has a negative impact on the child's psychological, social, and even physical well-being. There are differences in the weight index between males and females, with the percentage of overweight and obesity among males (53%) being higher than that recorded among females (35%).

***The second axis:**

Through this axis, we aim to determine if the child engages in physical and sports activities within the framework of physical education classes scheduled among the subjects taught to students at school. Among the results obtained, we can find out whether the child actually participates in physical and sports activities within the school, identify the allocated time for practical sessions as well as the actual practice time. On the other hand, we seek to understand the main reasons in case of non-participation. The results are as follows:

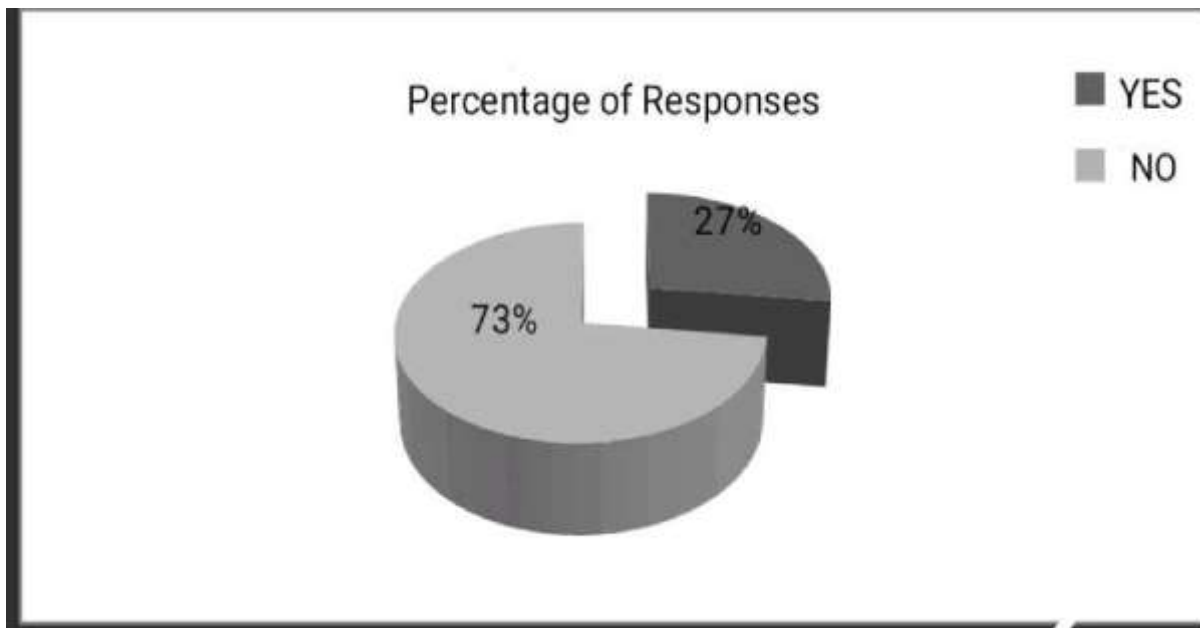


Figure 5: Practicing Physical and Sports Activities Within School

From the results, it is evident that a significant percentage (73%) of the surveyed children do not engage in physical sports activities at school, primarily due to the absence of physical education classes. On the other hand, those respondents who answered "yes" (27%) mostly confirmed that the duration of the physical education class is less than one hour per week. The following figure illustrates the actual time children spend in physical activities during physical education classes at school:

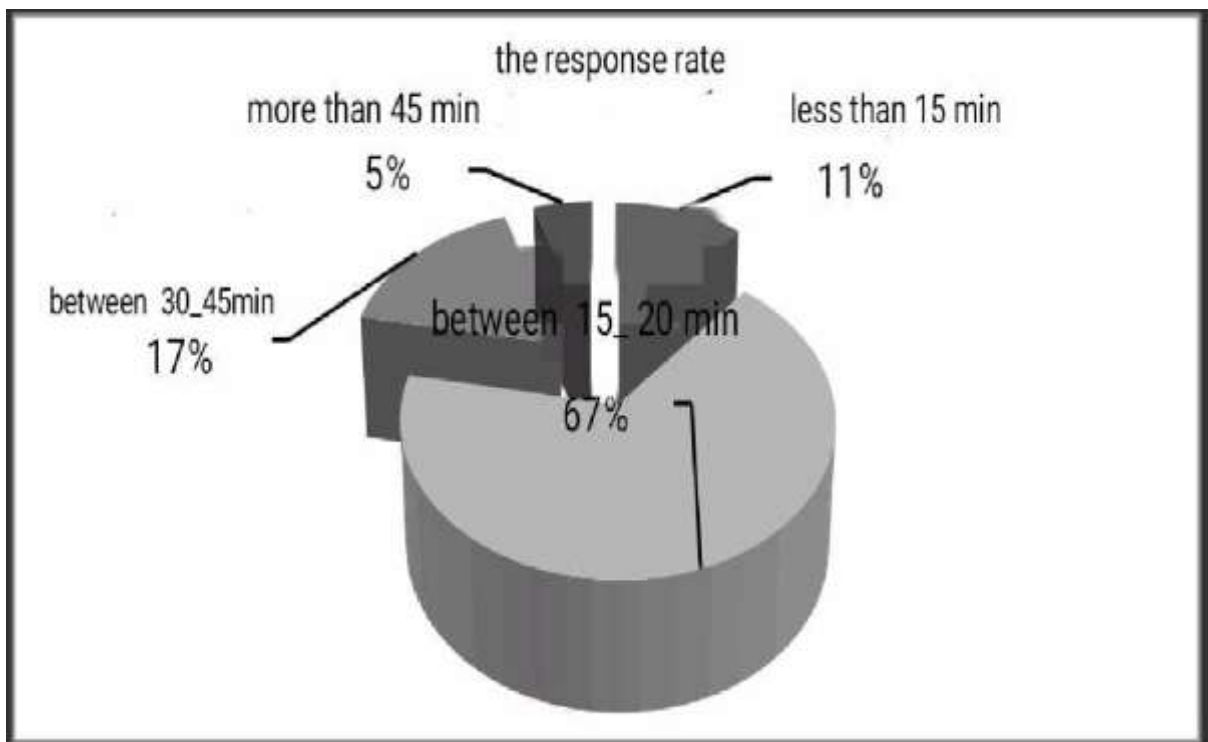


Figure 06: Represents the actual time for active behavior and physical activity during physical education class at school.

To note that the allocated time for physical education in primary education programs varies between 45 and 60 minutes weekly. However, the actual time for physical activity varies depending on the circumstances of conducting the class, available resources, the number of students, as well as the teacher's ability to manage the class. Based on these results, most of the children practicing physical education at school (67%) also confirmed that the actual physical activity during the practical class ranges between 15 and 20 minutes during the class. This is insufficient considering that many studies recommend that children need one hour of daily physical activity. Therefore, children should engage in some sports activities outside of school, either in sports clubs or through free physical recreational activities, as outlined in the following section.

* **The third axis:** the third axis of the study aims to understand whether children engage in physical activities and sports outside of school in an organized manner (such as sports clubs) or engage in free, recreational physical activities. Among the results, we can assess the children's inclination toward physical activity, differentiating by gender. This assessment includes regular participation in sports clubs (with an indication of the training volume or reasons for non-participation if applicable) and irregular participation in free recreational physical activities. The results are as follows:

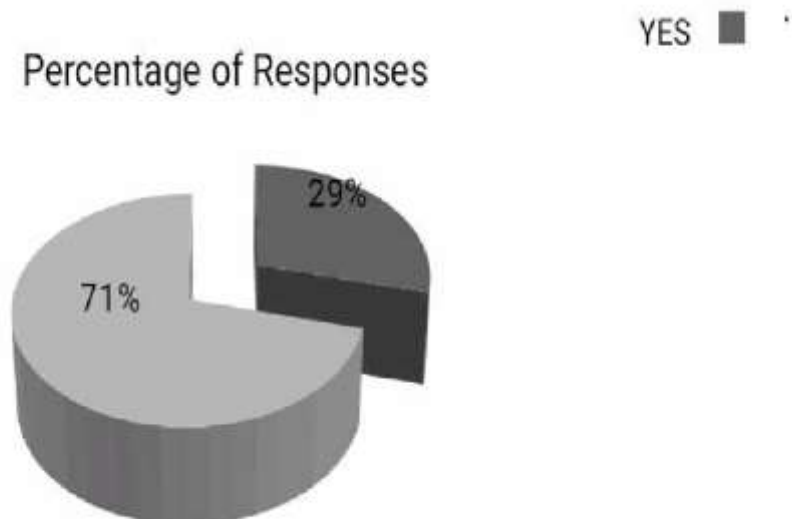


Figure 06: Percentage of children engaging in physical activities and sports at sports clubs

Based on the results, it is clear that the majority of respondents (71%) do not regularly engage in physical activities and sports at sports clubs, with this percentage being higher among females. Specifically, 87% of girls do not participate in sports at clubs, compared to 63% of boys. Among the reasons cited by the respondents for not participating in sports activities at clubs, the most common factors are a lack of facilities and the absence of sports clubs near their residence (60%), while some perceive that the coaching at sports clubs is not suitable for educational purposes (23%).

For the children who regularly participate in sports activities at clubs (29%), the majority (62%) mentioned that they have approximately 2-3 training sessions per week. Moreover, about 65% of these participants reported spending about an hour during each training session.

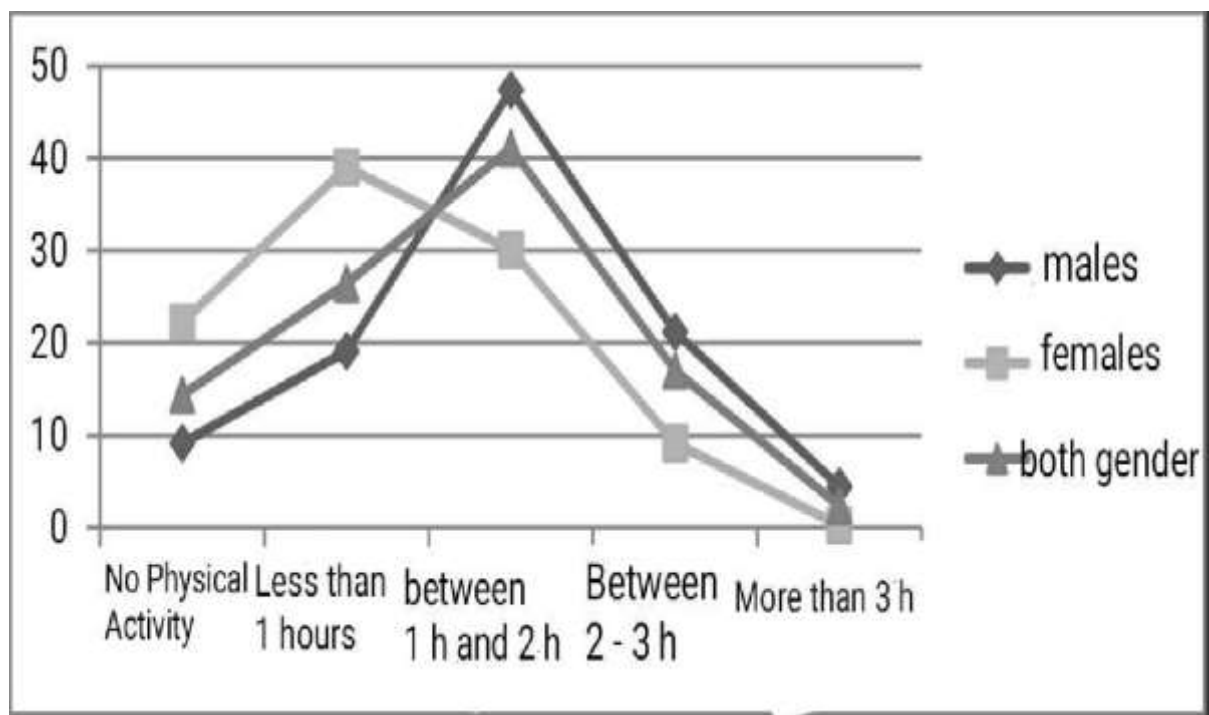


Figure number 07: The average duration of recreational physical activities during the day.

The results indicate that the average time spent on recreational physical activities during the day ranges between one to two hours daily for the majority of respondents (41%). This percentage is higher among males (47%) compared to females (30%). However, a considerable proportion (26%) of children do not engage in physical activities adequately, meaning they spend less than an hour daily. This situation is more pronounced among females (39%) compared to males (19%). On the other hand, a noteworthy percentage (14%) of respondents, especially females, do not engage in any physical sports activities during their leisure time.

4-3 Discussion of the results and their interpretation:

***The first axis:**

In this axis, we observe that children's behavior at home, according to the opinions of their parents, is characterized by activity and vitality for most of the respondents. This behavior is more commonly reported among girls than boys, and this can be attributed to cultural and social reasons, suggesting that girls may be more involved in helping their mothers with household chores, making them appear more active than boys.

Furthermore, to determine if there are differences in the mentioned values between boys and girls, a chi-square test was employed. The calculated chi-square value ($X^2=2.045$) was smaller than the tabulated chi-square value ($X^2=7.815$) at a degree of freedom (df) of 3 and a significance level (α) of 0.05. Therefore, no statistically significant differences were found between boys and girls regarding the time spent in front of screens, even though a percentage of them exceed the recommended screen time limits. This can contribute to them having less physical activity. It's worth noting that a lack of physical activity, combined with an unbalanced diet, can lead to weight gain, which is evident in some children, especially among boys based on the data provided by the respondents.

***The second axis:** In this axis, we observe that physical education in schools has not received the necessary attention and has not reached the desired level. Most respondents confirmed that physical education as an educational subject in primary school programs is not implemented in many educational institutions. Among the reasons for not activating this subject in primary education institutions, we find a lack of facilities, equipment, and resources for physical activities and sports (Boukherraz, R. and Boudjrada, A. 2012). However, the absence of resources, which are considered basic educational tools, is not the primary factor, given the lack of specialized teachers for this subject. A qualified teacher can provide alternative means and make use of available space to activate physical education classes and guide children towards continuous and effective physical activity (Boukherraz, R. and Benakila, K. 2012).

***The third axis:** In this axis, we notice that the availability of practicing physical and sports activities in sports clubs is limited due to the lack of a sufficient number of local sports and cultural associations that provide opportunities for young children to engage in various forms of cultural and sports activities. Additionally, some individuals, especially the parents of girls, believe that even though some clubs exist, they do not provide qualified educational guidance.

On the other hand, we observe that many children, especially boys, show interest in practicing recreational physical and sports activities (unstructured activity). This interest is somewhat less prevalent among girls, possibly due to cultural and social factors. Nevertheless, there is a significant percentage of surveyed children who do not utilize their leisure time to engage in various physical and sports activities. This may be attributed to allocating leisure time for other activities or the lack of dedicated spaces for physical and sports activities.

- General Conclusion:

Through this study, it can be concluded that, in the context of contemporary life with the availability of transportation means and the presence of entertainment options for children, such as electronic games, the internet, and modern communication and media technologies, there is a reduced inclination for physical and sports activities among children in the elementary education stage, especially if there is no encouragement and guidance for such activities within an educational framework. This can be done either at the school level through physical education classes or through sports associations and clubs in the form of competitive or recreational physical and sports activities. It should be noted that these results are relative and cannot be generalized due to the sample size. However, they provide preliminary indicators and data that can be further validated in future similar studies.

Based on the idea that an individual is a unified entity, encompassing physical, psychological, and social aspects, it is essential to pay attention to holistic growth. Physical and motor development is of utmost importance for its functional effectiveness in the educational process. Consequently, it is important to focus on play and physical sports activities as important factors in supporting a child's functional behaviors. Therefore, a comprehensive and forward-looking approach is required to promote physical and sports activities among children, including:

- * Raising awareness and guidance about the importance of physical sports activities for child growth and development.
- * Initiating agreements between relevant parties to integrate specialized instructors in schools or sports clubs.
- * Collaborating with relevant authorities to reconsider elementary education programs, giving importance to physical and sports activities.

Conclusion:

Contemporary life has provided humanity with a great deal of comfort, to the extent that daily activities are no longer heavily reliant on physical effort and movement. As a result, engaging in physical and sports activities has become a necessity for maintaining the health of individuals and society. This necessity is even more critical for children due to their growth and their need for physical activity, which takes various forms and is primarily based on active play.

However, in our current era, many children are increasingly drawn to electronic games and technological media, further compounded by the deficit in social development institutions. This deficit is particularly evident in educational institutions, where the lack of qualified sports educators, both within schools and in external sports clubs and associations, hinders the guidance and supervision necessary for children's physical and sports activities.

It is, therefore, imperative to establish a strategy for enabling physical and sports activities within educational institutions, under the guidance of qualified experts who can direct children toward regular and continuous physical exercise. Moreover, parents should be educated about the importance of physical activity for the growth and health of their children. This would create the conditions for active play, reduce electronic gaming habits, and promote healthier behaviors.

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