

Sporting Activities and Mental Health in the School Environment

النشاط الرياضي والصحة العقلية في الوسط المدرسي

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ABSTRACT:

This research determines the impact of sporting activities on the mental health of children and adolescents in school. Besides academic learning, these sporting activities are also acquisitions that develop their knowledge and reflections. The school environment is, therefore, an ideal place to train, inform and educate them, through the sport activity, on health issues and the promotion of healthy behaviors to preserve it. The school health doctor plays a leading role during screening visits, and through a clinical examination and an exploration of declaring the student's aptitude for the practice of physical education and sports. So, all sports activities must be adapted to ensure that students with special needs can participate. The adaptation must conform to the modifications typical of the student. The underlying questions: Is there conciliation between sport and the student's mental health? How to establish a medical and psychological examination at this level? ...

Keywords: Sporting activity, Mental health, School environment, Self-control, Regulation, Self-regulation.

الملخص:

هذا البحث يحدد تأثير الأنشطة الرياضية على الصحة العقلية للأطفال والمراهقين في المدرسة. إلى جانب التعلم الأكاديمي، فإن هذه الأنشطة الرياضية هي أيضاً عمليات اكتساب تنمي معارفهم وتآملاتهم. و لذلك، فإن البيئة المدرسية هي المكان المثالي لتدريبهم وإعلامهم وتثقيفهم، من خلال النشاط الرياضي، بشأن القضايا الصحية وتعزيز السلوكيات الصحية للحفاظ عليها. و يلعب طبيب الصحة المدرسية دوراً رائداً أثناء زيارات الفحص، ومن خلال الفحص السريري واستكشاف إعلان كفاءة الطالب لممارسة التربية البدنية والرياضة. لذلك، يجب تكيف جميع الأنشطة الرياضية لضمان مشاركة الطلاب ذوي الاحتياجات الخاصة. التكيف يجب أن يتفق مع التكيف والتعديلات النموذجية للطالب. الأسئلة الأساسية هي: هل هناك مصالحة بين الرياضة والصحة العقلية للطالب؟ كيف يتم إجراء فحص طبي على هذا المستوى؟ ...

كلمات مفتاحية: النشاط الرياضي، الصحة العقلية، البيئة المدرسية، ضبط النفس، التنظيم الذاتي.

1- Introduction:

Mental health is a pathway to health as a whole, and at present certainly is at the heart of the national concern, because it is enough to consult the alarming figures presented by studies on the mental health status of the Algerian population, and in particular that of children and adolescents in school. Knowing that the school's mission is to ensure the transmission of knowledge, it also helps to maintain and improve the health of students in schools throughout schooling.

On this basis it is necessary to resort only to teaching methods that contribute to promoting the mental health of students... The development of the national mental health programme was part of WHO's 2000-2001 strategy for mental health and substance abuse prevention, as well as strengthening school psychology, is one of the concerns of the national school mental health plan.

At first glance, it would be tempting to see sports activity as a strategy specific to our time, a period that this educated age group must face in a world where risk factors combine for the marginalization of this population and the destruction of this vulnerable environment.

2- Sports activity (Sport practice):

Sport activity is different from physical activity...

Caspersen et al (1985) defined physical activity as any body movement produced by skeletal muscles and resulting in energy expenditure... This definition is widely used in the literature and in public health, and despite this consensus, confusions still persist between the terms "Sport" and "Sports Activity"... (Grenier Johanne et al., 2010, p.p. 13-14).

Professor Martine Duclos, Head of Sport Medicine and Functional Explorations at the Clermont-Ferrand University Hospital, counts three types of physical activity:

- Physical activity related to travel (going to work, running or cycling, etc.).
- Physical activity carried out in the context of domestic life (cleaning, cooking and DIY...)
- Physical activity during recreational activities including sport which is a structured physical activity. (Pereira Didier, 2013, p. 11).

Physical activity thus appears during professional practice, domestic life and leisure... That's for each of us can do it in our daily lives even though it is done without methods, and it is a health imperative... It should be noted that WHO has adopted a global strategy for activity or physical exercise

For the definition of sports activity, we remember that of the European charter of sport which is revised in 2001 of the Council of Europe, these are all forms of physical activity that are carried out through an organised practice or not have the objectives: the expression or improvement of physical or psychological function, the development of social relations or the achievement of competitive results of all levels... (Depiesse et al., 2009, p. 03).

It can be remembered that sports activity is a physical activity that is carried out in an organized way with a framework, rules and a competition system. On the other hand, the

physical and sports education cited in the EPS programme (1981) is an educational system deeply integrated into the overall education system, following objectives.

A definition given by M. Piéron (1985) EPS as an area of study of the effects of motor activity on the physical and psychological characteristics of individuals considered in their social environment. He also adds that it is a compulsory teaching discipline that allows the school practice of physical sports and artistic activities (APSA) for all adaptations to students and training issues. Its role is to acquire EPS-specific skills, which also enable motor, cultural and social development for all students.

The following pattern clarifies the difference between physical activity and sport activity:

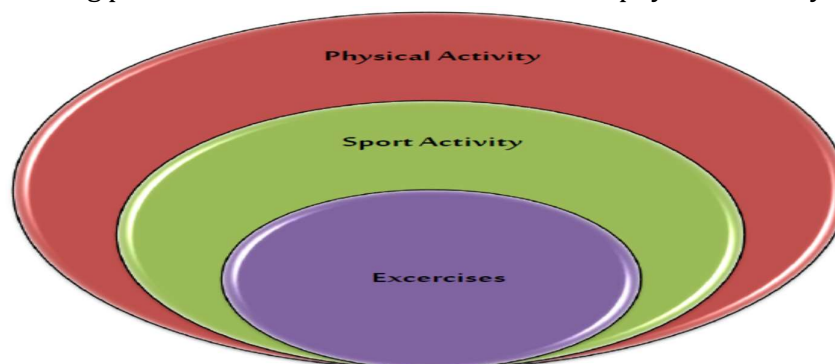


Fig. 1. Representation of physical activity and sport activity. Source: Researchers.

3- Mental Health:

The concept of Health should first be defined:

The World Health Organization (1946 and enshrined in the Ottawa Charter of November 21, 1986) provides an inclusive, universal definition: "Health is a state of complete, physical, mental and social well-being, not just the absence of illness and disability." (Grenier et al., 2010, p. 08).

Through this definition we can see these main facts:

- This definition highlights the important aspects of mental health.
- Mental health is a component or rather an integral part of health; indeed, there is no health without mental health and vice versa.
- Mental health is more than the absence of mental disorders.

On the other hand, WHO's Mental Health Action Plan report defines Mental Health as a state of well-being that enables everyone to realize their potential to cope with the normal difficulties of life, to work successfully and productively, and to be able to make a contribution to the community.

Mental health and well-being are essential for human beings to be able, at the individual and collective level, to think, feel, exchange with others, earn a living and enjoy life. That's why the promotion, protection and recovery of mental health is a central concern for individuals, communities and societies around the world. (World Health Organization, Mental Health Facts

and Figures, August 2014, available on:
https://www.who.int/features/factfiles/mental_health/en/).

In this sense a person can live with a mental illness and have a well-being that could flourish the life of that person. Mental health is observed as a result of interaction at three levels:

- Biological is the physiological of the person.
- Psychological aspects: behavior, cognitive, emotional and relationship...
- Social about relationships between the person and those around him

4- Mental Health in schools:

Falgairrette et al (1996) and Gavarry et al (1998) reported that children and adolescents were active advantages in school rather than on public holidays. During which young people tend to spend their free time watching television, playing computer games and video games (Pate et al, 1994). Through physical education courses (Fairclough et al, 2005) and reactions (Sarkin et al, 1997), it is possible to increase the level of physical activity of children in school.

Sallis et al (2001) conducted a study to measure the impact of school environment characteristics on children's physical activity. 137 areas in 24 public schools were measured by size, type and equipment (example: Basketball Terrain) and observed before school at lunch, and after school. Environmental characteristics accounted for 42% of differences in activity levels among girls and 59% in boys... (Van Praagh, 2008, p. 30).

The school therefore appears to be an ideal environment to improve physical activity, especially since it is intended for all children in school. There is ample evidence that school curricula in elementary, middle and secondary schools can influence positive mental health and reduce risk factors as well as emotional and behavioural problems through socio-emotional learning... (World Health Organization, Mental Health Facts and Figures, 2004, available on: https://www.who.int/features/factfiles/mental_health/en/).

So, child and adolescent mental health disorders in schools are emotional, behavioural, cognitive and brain problems that disrupt development, personal relationships and motivation for realization.

Reading the WHO report entitled Fact and Figures on Mental Health, it was not possible to note:

- The regions with the highest proportion of the population under the age of 19 are also those with the fewest resources for mental health.
- About 20% of children and adolescents worldwide have mental health problems or disorders, in half of cases, these disorders occur before the age of 14.
- Mental disorders and those related to psychoactive substance abuse are responsible for nearly 23% of the years lost due to disability.
- More than 800,000 people commit suicide each year and suicide is the second leading cause of death among people aged 15-29.

- Mental disorders increase the risk of contracting other diseases such as cardiovascular disease, diabetes and HIV infection and vice versa... (World Health Organization, Mental Health Action Plan (2013-2020), March 2018, available on: https://www.who.int/features/factfiles/mental_health/en/).

Indeed, schools are excellent places to promote the mental health of children and adolescents where they spend a good part of their days, nine months a year from the age of six.

The question asked: What intervention strategies to make children and adolescents involved in their mental health?

The right strategy would be sports activity in schools

5- The influence of sports activity on mental health in schools:

Many stakeholders have linked physical activity to maintaining health. Doctors, educators and philosophers have, on the knowledge of history, justified the needs of a body education for human beings, sometimes empirically, based on extraordinary intuition, sometimes using scientific research supported by the knowledge of their time. Thus, from the 5th century BC, Hippocrates presented in his book of the Regime the main points of his doctrine on health, which he said was the result of the balance between integrated foods and the exercises practiced by individuals. Galien, for his part, adopts the view that physical exercises can act as much preventively as curatively on the health of the human body. The Humanists of the Renaissance will also defend the practice of physical activity; they will use the following arguments to try to demonstrate the merits of the development of the body:

- Physical activity is necessary to ensure health, it improves strength, endurance and organic development.
- The body that performs body exercises becomes vigorous, agile, robust and graceful.
- Exercise contributes to moral development as it develops self-discipline, control of emotions, virtue, respect for regulations and authority.
- The practice of bodily activities leads to mental health benefits because it dispels discouragement; it develops good humour, joy and personal satisfaction.
- Physical activity to the development of children and adolescents.
- Intellectual development will be improved by the fact that the individual will return more to his studies after physical activity. (Langlois, 2017, p. 20).

Such a justification is not far from that used by Quebec's medical officers of health to defend the merits of a school exercise program or the argument put forward by Larouche (1995) to emphasize the need to maintain physical education in schools: "Regular and continuous physical activity generally reduces the risk of cardiovascular disease, maintains weight and strengthens joint and muscle function. It also has a beneficial effect on levels of stress, anxiety, depression of insomnia and fatigue... Exercise is generally associated with a balanced diet and low consumption of alcohol and tobacco, which increases its preventive potential. Various surveys show that physically more active young people smoke less, eat better

and generally, better discern lifestyle habits that are conducive to their well-being and health than less active youth. The habit of being physically active during adult life is influenced by the experiences of childhood and adolescence, so it is important that we acquire this way of being and acting early on so that it becomes part of the lifestyle of young people... ». (Confederation of Physical Educators of Quebec, 1993, p. 57).

Another example of an inverted U-curve may be the relationship between mental health and physical activity. An epidemiological study carried out in 1996 on 9000 French people using a self-assessment of health status in relation to physical activity isolated the effects of activity levels on mental health (Geneste et al 1988, Guezennec et al 1996, Guezennec et al 1997) the subjects of this study, whose age was less than 35 years of age, stated that the improvement of psychological well-being was the most sensitive parameter to the increase in physical level, beyond this age the benefits of training on mental health were balanced with action on the various organic pathologies (Chatard, 2004, p. 37).

In 2002; The World Health Organization has stressed that lack of physical activity can have important health consequences. It also stated in 2005 that chronic diseases are the leading cause of disability and mortality without the world, and that they come mainly from poor nutritional habits and physical inactivity... So the lifestyle resulting from the practice of physical and sports activities is beneficial for health. We can mention the effects in the prevention of cancers including breast and colon cancer, cardiovascular disease, osteo-articular system damage, cholesterol, blood pressure, diabetes (type 2 non-insulin dependent), overweight and obesity... Finally, physical activity has positive effects on mood, anxiety, stress and sleep... When we make a physical effort, our brain secretes endorphins that spread throughout the central nervous system and which endorse all bad emotions. (Pereira, 2013, pp. 15-16).

Corrion Karine (University of Nice Sophia-Antipolis Research Teacher) during the 8th Prevention Days: Sport and Physical Activity; The benefits of the practice, beyond physical health on June 06th, 2013, indicated that the benefits of moderate physical activity of three hours per week or the intense practice of three 20-minute sessions per week would result in a 30% reduction in the risk of premature mortality. The benefits are also psychological. In fact, the regular practice of a sport improves physical and emotional well-being as well as quality of life and self-perception. (Marchiset et al., 2013, p. 47).

In children, regular sports help them to become aware of their health and encourage them not to smoke or take drugs. By improving self-image and removing boredom, it generally helps to improve academic performance. (Chatard, 2004, p. 09).

In the same vein, the news "La presse +" in its September 18th, 2017 edition noted that the practice of a sport in school promotes the educational success of young people, and according to Kino-Québec and the Quebec Student Sports Network (RSEQ) several analyses demonstrate the link between the practice of physical activities and the academic success of students, this one demonstrates that participation in organized sports at school is associated with:

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- Better academic performance.
- Higher academic ambitions.
- Continuing post-secondary education.
- A lower probability of dropping out of school.

Obviously and through these studies and previous studies there is a link between sports activity and mental health but it is difficult to clarify this link especially to childhood and adolescence ... Beyond that, we try to answer this question:

What is the influence of sports activity on the mental health of the schooled child and adolescent?

In terms of the effect of sports activity on the mental health of school children and adolescents and our knowledge few studies have been done, and these emphasize the relationship between sports activity and anxiety, depression and self-perception. It should be remembered that the disorders presented by the child and the adolescent can manifest themselves in essential forms:

A- Either in an internalized way, that is, directed against oneself as follows:

- Stress.
- Anxiety.
- Phobia.
- Depression.
- Social withdrawal or inhibition.
- Anger/ Hostility.
- Eating disorders.
- Sleep disorders.
- Eating disorders (Anorexia).
- Smoking.
- Addiction.
- School dropout.

B- Either in an outsourced way, i.e., directed against the outside as follows:

- Suicide.
- Aggressive and antisocial behaviour.
- Violence.
- Self-harm.
- The agitation.
- Impulsiveness.
- The opposition.
- Delinquency.

According to research in Psychopathology and more specifically internalized problems affect personal growth, on the other hand that of the child and adolescent in school concerns

above all: his low self-esteem, his autonomy and his control of his environment. This disrupts his intellectual performance, including concentration and assimilation and finally his school acquisitions. On the other hand, outsourced problems affect social growth, including social coherence, contribution, integration, and then social acceptance and pathological form in schools, it is school abundance... These internal or external pathological manifestations are intertwined and linked, certainly that they cannot appear at the same time, but rather as a priority according to the predisposing and triggering factors of the student, even if we have been able to observe the importance of certain manifestations by contribution to others, and sometimes are causes sometimes are consequences... And sports activity in the school environment remains the only remedy or rather a very large part in self-control, the preservation of balance and the maintenance of the student's state of health... (Curclod et al., 2000).

This self-control that we propose following the sports activity to a theoretical frame of reference in cognitive psychology called Regulation.

James Gross describes emotional regulation as a process within in which individuals influence the emotions they feel, the timing and beginning of emotional feelings, and emotional expression (Gross, 1988). The processes of regulating emotions involve both automatic and controlled actions that can take place before, during and after the emergence of emotion... However, research on emotional regulation in sport is becoming increasingly relevant and athletes are using several regulatory strategies considered by gross's (1998) model to control a wide range of emotions in the sports field, for example: a study of table tennis players revealed that athletes seemed to prefer certain strategies to control particular emotions and that attentional deployment was used more frequently during the competition (Martinent, Ledos, Ferraud, Campo-Nicolas, 2015). These athletes also felt more ease in dealing with positive emotions compared to negative emotions such as disgust, discouragement and anger, which were more difficult to manage during the competition... (Campo and Louvet, 2016, p.p. 41-42).

Another approach to studying emotional control is a self-regulation model.

In the same vein and perspective Albert Bandura and his collaborators (2003) refers to the term Self-regulation, and defines it as the ability of an individual to control his own behaviour. These self-regulation skills allow the individual to change or improve his behaviour in a position of actor of his health. Several studies conducted by Bandura and his collaborators show that these abilities cover the capacity to self-regulate social pressure (Delinquency/ Alcoholism), the capacity for self-regulation of affects (Colère/ Aggressiveness) and moral disengagement... (Marchiset et al., 2013, p. 48).

Based on previous research and studies and through the mental health axis of the child and adolescent in the proposed school environment, we can see that the positive effects of sports activity can be explained briefly by biological, psychological and social modification.

6- The benefits of sports activity in schools according to the Bio-psycho-social model:

According to Toker and Biron (2012) the scientific literature proposes four models to explain the psychological benefits of sports activity: distraction, feeling of personal efficiency, resentment and physiological alterations...

The hypothesis of distraction is based on the cognitive and behavioural therapeutic approach, which is based on the elimination of invasive negative thoughts by the distance created in relation to subjective difficulties... The Personal Feeling of Effectiveness (SEP) hypothesis builds on Bandura's work that shows that high MS is a protective factor against stress and anxiety and vice versa... However, it has been shown that a single session of physical activity improves MS in people who are not very active... The resentment hypothesis refers to the physical and psychological recovery capacity that would come from the release of cumulative nervous tensions to an increase in energy levels, which would produce psychological benefits... The hypothesis on physiological alterations from several sources:

- 6.1- The practice of physical activity involves the contribution of two systems in opposition: During exertion, the sympathetic nervous system activates the metabolism to meet the demand (adrenaline, increased heart rate, blood pressure, blood sugars, oxygen consumption, energy supply to muscles...). And after the activity when the calm returns, the parasympathetic nervous system slows down biological and psychological activities.
- 6.2- This psychologically positive "post-exercise" effect has been associated with decreased muscle action potential, the euphoric and soothing effect of endorphins, increased cellular metabolism and brain blood flow responsible for emotional regulation and various neurotransmitters.
- 6.3- Physical activity has a protective effect against neurotropic factors that are proteins responsible for the growth and survival of developing neurons that would be less in depressives.
- 6.4- Recent research shows that the social context in which physical activity takes place has an effect on mental health. For example, being part of a sports team is a protective factor against teen suicide.

Overall, these hypotheses highlight that the practice of physical activity has a power of distraction in the face of lived difficulties, that it has a power to develop a sense of efficiency and self-esteem, that it has an energizing power that increases the capacity of physical and psychological resistance and that it has a psychophysiological favorable effect in a social context... (Poirel, 2017, p. 147-164).

7- What sports activity for what mental health in schools?

Sports activity allows the retention of at least partial physical fitness. Sport is therefore a major factor in increasing the chances of survival (Health in general) and quality of life (Mental health).

The World Health Organization has issued global health physical activity recommendations to provide national and regional policy makers with indicators of the dose/effect relationship between frequency, duration, intensity, type and total amount of physical activity needed to prevent noncommunicable diseases. The recommendations cover three age groups: 5-17 years/ 18-64 years/ Over 64s... But what we are interested in in this study is the 1st category (5-17 years):

- Young people aged 5-17 should accumulate at least 60 minutes per day of moderate to sustained physical activity.
- Physical activity for more than 60 minutes a day will provide an additional health benefit.
- Daily physical activity should be essentially an endurance activity. Sustained intensity activities, including those that strengthen the muscle system and bone condition, should be incorporated. (Pereira, 2013, pp. 16-17).

8- The observation is there!

- 8.1- If EPS is a subject of instruction in principle compulsory in the same way as other school subjects, except in cases of medical advice to the contrary (Dispense), school sport is therefore not compulsory... On the other hand, these exempted students may have a choice to a sport suitable for their health conditions.
- 8.2- Our way of life to change well, following technological development, and Algeria is gradually reducing physical exertion in daily acts, children and teenagers prefer to console games through Computers, Tablets and Smart phones... They spend more time in front of screens than playing sports. The only solution to this current phenomenon is the reorganization of school sport... Indeed these technological developments are appreciable, we cannot deny this, but they create new health imbalances if we do not take care of them.
- 8.3- We must also mention the Burnout of pupils, following the overload of school activities and the problem of the weight of the school bag especially for weak and puny children and its consequences on physical development, and then you really have to organize your time to practice a sports activity... Perceived Not that the term Burnout is generally perceived as a work-related disorder, and it turns out that burnout is also useful when instilled in the school context.
- 8.4- EPS teachers teach and learn an entire class of students a limited sport activity, for lack of means within the school, generally cannot appropriate or rather satisfy the need of the student, they do not all have the same pronounced taste or even talents ... So this work is limited to improving performance as it is to acquiring the objectives designated for sports such as discipline, competition and team spirit.
- 8.5- In my opinion the most important axis in EPS is the implementation to the description of the personal experiences experienced by students during their practices, i.e. to encourage them and give them the opportunity to recognize and interpret their experiences so that they can build new elements of knowledge including the control of

their behaviors and emotions as well as learning other acquisitions and skills that allow the development of psychological and social skills.

- 8.6- Finally, a question arises: To have an objective and more accurate assessment of what dose and nature (the determinants) of sports activity necessary for an effect on the mental health of the child and adolescent in school.

9- Conclusion:

The issue of the mental health of the child and adolescent in school is a public health concern and the usual sports activity within the school is certainly the most natural way that seems to make the most consensus, the most accessible and the least expensive, of course associated with a nutritional intake, to address this problem because of its important impact on short-term mental health, in the medium and long term or rather its bio-psycho-social benefits that we have proposed and which paves the way for further studies and work.

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