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# The contribution of physical and sports education to health education of Moroccan middle school students: Representations and practices of teachers

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## Abstract:

**BACKGROUND:** Physical education is undergoing a major transformation period that leads that school discipline to influence the lifestyles of young people to help them adopt behaviors conducive to their well health and well-being. Health education (HE) integrates with various intervention strategies in the field of health such as disease prevention and health promotion. In schools, the HE comes in many forms and in relation to several disciplines. Our study focuses on the current situation of HE in physical and sports education (PSE) in middle school. Specifically, the research question we developed is: "What is the contribution of the PSE to the HE of middle school students?"

**MATERIALS AND METHODS:** This qualitative research was carried in Marrakech. Semi-structured interviews were conducted with ten PSE teachers after receiving their informed consent. Deductive content analysis was used in this study.

**RESULTS:** Among the main results, there is a certain diversity of teachers' representations on HE and PSE. These teachers say mobilize PSE to contribute to the HE of students. However, it was noted that their teaching practices are at odds with the perspective of the inclusion of HE in the field of PSE.

**CONCLUSIONS:** In the absence of a clear vision concerning physical activity and sport in relation to "healthy" and "active" schools, it seems very unlikely to influence the thoughts and practices of HE teachers; strongly attached, as they often are, to their representations of their discipline.

## Keywords:

Health education, physical education, representations, teachers, teaching practices

## Introduction

The school environment is one of choice to convey knowledge and values relating to health. School has a greater impact than any other social institution when it comes to raising young people's awareness of living healthier.<sup>[1]</sup>

According to many researchers, the development of psychosocial skills is one of the means to achieve the objectives

of health education (HE).<sup>[2-4]</sup> This involves the transmission of theoretical knowledge (e.g. personal knowledge and knowledge that students acquire about themselves: knowledge of themselves, their body, their health, risky behavior, etc.), by the development of capacities (ex: cognitive and motor skills) and by the development of attitudes (ex: interpersonal skills). The development of psychosocial skills can thus be conceived only in a holistic and positive perspective involving the body in all its

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dimensions (biological, psychoaffective, cognitive, and social). It could not ever be reduced to information. In fact, adolescents are generally not very receptive to discourse focused on taking precautions.<sup>[5]</sup>

In addition, a course on "good for health" is not enough to constitute HE. On the contrary, such an education requires entrusting the pupil with the responsibility of expertly taking care of his own health.<sup>[6]</sup> This is why the general approach aims to explain, "succeed and understand," give meaning, know, experience and control one's body, interpret its bodily sensations, choose and implement behaviors that preserve one's health or safety, enrich relationships with others, managing the security/relationship risk, etc. As a school discipline, the physical and sports education (PSE) appear to be a discipline of choice, along with the life sciences, to contribute to the student HE. This disciplinary field takes into account the physical, social, moral, and also intellectual dimension.<sup>[5]</sup> It is, therefore, interested in the person in a global way.

Maher (2016) believes that the physical education is a very important component of child development.<sup>[7,8]</sup> Physical activity directly affects cognitive processes; arousal and increased secretion of neuropeptides increase children's self-esteem and affect their mental activity at school.<sup>[9]</sup> It also teaches students to solve the problems of daily life and to adopt the behaviors of responsibility, solidarity, and citizenship essential to social life. It can have a therapeutic role and produce a positive effect on health, on stress; it can also have a role in maintaining a personal and emotional balance while flourishing.<sup>[10]</sup> Finally, it allows students to have a moment of activity, of relaxation and pleasure.

Moroccan official texts consider physical and sports education (PSE) to be "a compulsory subject and an integral part of general education in all the cycles of education. It is a discipline that contributes to the development of learners' skills. It also aims to make the learner acquire physical skills and self-knowledge to accustom him to take care of his health and quality of life and allow him to adapt to different environments throughout his life.

Another objective of PSE is the acquisition of attitudes relating to sportsmanship, fair competition, and the values of autonomy and responsibility. According to these texts, PSE seems to pursue a HE objective. But what about reality?

Our study attempts to answer this research question. We try more particularly to understand the links which unite PSE and ES by analyzing the representations and the declared practices of teachers of this discipline at the level

of middle school. The PSE teacher is often considered as a "specialist" in health issues because he is interested in the body through physical activities which he uses as a means to allow students to acquire knowledge and develop skills.<sup>[11]</sup>

Our research is therefore at the junction of two disciplinary fields in education, respectively HE and physical education which are studied according to multidisciplinary approaches: ergonomics, physiology, philosophy, sociology, education, social psychology, epidemiology, anthropology, and health sciences.

Our research, on the contribution of PSE to HE for students, is interested in teacher's representations and their declared professional practices. This concern is similar to that of French<sup>[12]</sup> and Canadian researchers who tried to understand the links between PSE and HE.<sup>[13]</sup>

The approach is original in so far as, to our knowledge no Moroccan research has so far studied both the PSE and the ES by updating the representations and practices of teachers.

At a time when Moroccan youth seem to be attracted towards a sedentary lifestyle, given the time spent in front of the television, the computer, etc., in addition to the appearance of many phenomena foreign to our customs (calorific food, tobacco, alcohol, etc.), the emphasis should be placed on the importance of PSE in the school environment. PSE, by its specificity, can contribute to this vocation of bringing students to take an interest in their health by promoting a safe physical practice. Achieving this objective particularly requires the mobilization of teachers. Indeed, the latter can make a specific and original contribution to HE by an approach which help pupils active appropriation of a "health habitus."<sup>[14]</sup> The individual would be considered from a systemic perspective and it would therefore a question of giving him the means to make choices.<sup>[15]</sup> It seems important to use the PSE discipline to educate in physical, but also mental and social health.<sup>[5]</sup>

In addition, the prevention of overweight and obesity in young people involves inform them about energy intake and expenditure. PSE courses thus play an essential role in this prevention.<sup>[16]</sup>

The research question is: How is HE approached in PSE, through the teaching practices of teachers of this discipline in middle school? Our objectives are therefore (1) to identify the representations of PSE Moroccan teachers on HE and PSE then, (2) to understand the way in which these teachers think to contribute to students' HE and finally (3) to identify the pedagogical approaches declared to be used by teachers to achieve

their objectives. We hypothesize that the representations that teachers have of their discipline and of HE, as well as the representations that they have links that separate these two areas are in line with their teaching practices.

### Context of research

According to the latest survey by the High Commission for Planning (HCP) on young people values and perceptions of as well as their leisure activities, 55.5% of young Moroccans aged between 18 and 24 do not practice sport (76.7% of Moroccan women never practice sport and only 7.4% practice it regularly).

Young people's pronounced interest in leisure activities that require little or no physical effort, such as watching television, surfing the Internet and playing video games or the computer, is certainly not unrelated to their disengagement from to the practice of physical activity. This phenomenon is the subject of numerous researches, in particular concerning the problem of young people's disengagement from physical activity.

As in Morocco, the findings are worrying in other countries. For example, in Canada, more than half of young people (56%) aged 12–19 are inactive.<sup>[17]</sup>

Another worrying finding is that Morocco has all the characteristics of a country in nutritional transition, like other countries such as Algeria, Tunisia, Brazil, China and India. Our country sees the signs of a society in nutritional transition appearing which explains the transition from a society where malnutrition by deficiency and associated diseases predominate towards a society where chronic diseases linked to alimental diet, especially overweight and obesity predominate. Statistics published recently show that the situation has become worrying. Thus, according to another survey published in 2018 by the HCP, it appears that almost a third of the population of Morocco, or some 10.3 million people, is experiencing overweight problems.

In addition, overweight, which mainly affects adults around the age of 50, also affects >11% of the 15–25 age group. These imbalances can be avoided by learning a diet better suited to needs and by developing regular physical activity. It is in this movement that we felt the need to study how PSE contributes to the ES of Moroccan students.

In Morocco, PSE is a compulsory subject in our education system at middle and high school levels. At the primary level, the majority of pupils do not benefit from PSE courses because of the total lack of teachers trained in this discipline, the lack of sports facilities and the lack of teaching materials.

PSE as a fully-fledged teaching subject has adopted

physical and sports activities (PSAs) as a support for the achievement of its objectives. PSAs are not practiced with a concern for performance, but as a social, cultural training, and education practice.

In the light of the orientations of the national charter of education and training,<sup>[17]</sup> Morocco launched in the year 2000 a large-scale educational reform, allowing the recasting of the curricula and the adoption of skills approach. This is still in force in 2020.

PSE is like all the subjects of the Moroccan education system has changed the teaching paradigm, leaving the aspect of transmissivity character to replace it with active learning in which the learner is considered as the main actor of his learning. The teacher becomes a simple guide, his role is reduced only to incite, guide the pupil and accompany him in his learning process.

The Student's specific PSE exit profile is as follows:

- The acquisition of methodological and operational knowledge, which enrich health, social and cultural education, through the practice of physical and sporting activity
- The knowledge of the positive effect of motor activity and sport on health and the desire to practice it permanently
- The improvement of knowledge relating to the specific skills of APS, and putting them in relation with the environment
- The choice of a specific and permanent activity.

### Materials and Methods

For this study about the social representations of Moroccan PSE teachers working in middle school, the choice of methodology that meets the research objectives is essential. There are three objectives: to identify and describe the Moroccan middle school teacher's social representations of SE and PSE of; to identify the objectives that teachers say they aim for in PSE and put them in perspective with those of PSE; to identify the pedagogical approaches that teachers say they use with respect to PSE to contribute to student HE.

In order to answer the research questions and objectives, we favored a qualitative approach, focusing on a small sample but studied in depth.<sup>[18]</sup> Therefore, our wish is to know and understand the experience as it is lived and perceived by teachers when they plan, develop and animate teaching activities aimed at learning PSE by middle school students. Indeed, the analysis of the teaching practice, according to the discourse of the teachers, highlights two categories of practices. On the one hand, when the researcher considers the teacher as a mediator of the knowledge of his own personal practices,

he uses the declared practices as a gateway to teaching practice.<sup>[19]</sup> On the other hand, when the researcher directly accesses the teacher's practices when the latter is in action, he resorts to the observed practices. This research has explored the contribution of PSE to HE for students from the perspective of pedagogical practices declared by middle school teachers.

The investigative tool chosen in this study is the semi-structured interview

### Characteristics of the sample

Our sample includes twenty teachers chosen by convenience (twelve men and eight women). The youngest teacher is 26 years old while the oldest is 59. In terms of university education, all teachers have graduated from the teachers training center. In terms of professional teaching experience, four teachers have 2 years of experience and the rest have >10 years. These teachers participated in our research on a voluntary basis.

### The investigation tool: The semi-structured interview

As the aim of our study is to identify the representations of teachers' PSE through their speech, it is important to choose a data collection method in which the respondents can express themselves. Indeed, since social representations circulate in discourse and are carried directly by words,<sup>[20]</sup> the so-called "classic" methods (interviews and questionnaires) play an important role in determining the specific content of a representation.<sup>[21]</sup> Our choice was made on the semi-structured interview which seemed to us the most appropriate method of collecting data. This type of interview with open questions is therefore suitable for our study because it allows us to establish a discourse in which we will be able to identify social representations.

Interviews ranging in duration from 30 to 40 min were conducted in the teacher's workplace, who had chosen a quiet location inside the middle school to do this.

The teachers' comments were recorded on a Dictaphone. They were then transcribed in full in order to preserve the set of speeches expressed.

### Interview conditions

The teachers who answered yes to our interview request were met at the middle schools where they practice. The interviews took place in the schools where the surveyed teachers work.

During our meetings, we took all the necessary precautions to put the teachers at ease. Few minutes before the interview, a short file made it possible to gather general information used to establish the profile

of the interviewed teacher (e.g., age, sex, and number of teaching years carried out).

### Interview template

Our semi-structured interview outline consists of ten questions. It includes two questions on the definitions the teachers give to HE and PSE. The other questions try to determine how teachers include HE in PSE (e.g., link, approaches, objectives, taught subjects, learning situations, etc.).

The questions in the interview format made it possible to constitute the data in the form of verbatim; these were used to describe, analyze and interpret the data collected.

### Data analysis method

The substance of the analysis relates to the data collected in the semi-structured interviews. These are studied with the interview method which allows to browse the themes in order to highlight (1) the particular construction of the discourse and (2) the representations on the HE and the PSE.<sup>[20]</sup>

Thematic analysis undoes the singularity of the discourse by cutting across all the interviews related to the same theme: It will allow the content to be synthesized.<sup>[20]</sup> This will then make it possible to make the link with the sub-questions by seeking a thematic inter-interview consistency in order to identify elements on which to focus the teaching resources.

## Results

In this section we present teachers' statements about their contribution to their students' HE through their discipline PSE.

We will first analyze the representations relating to HE and PSE of the teachers interviewed, then their practices.

### Teacher representations relating to health education

First, and in order to understand the representations that PSE teachers have, a first question was asked: how did you define ES?

Analysis of the responses collected shows a certain diversity of teachers' representations of HE. Half of the teachers defined it a set of procedures that would take care of and protect the health.

Six teachers declare that HE aims to help each young person to appropriate the means to make choices in terms of health, to adopt responsible behaviors towards himself, others and the "environment." They add that it is based on three dimensions: bodily, psychosocial and critical.



Two teachers say that HE is both a teaching process and a learning process, the aim of which is to change the thoughts, feelings, behaviors and attitudes of individuals about their health. According to two teachers, the ES aims at the acquisition by the pupils of different theoretical knowledge related to several themes of this education.

### Teacher representations relating to physical education and sports

PSE is defined by a quarter of teachers as a discipline which is an integral part of the education system. These teachers add that it is based on a set of physical and sporting activities for student development on three levels: Cognitive, psychomotor, and socio-emotional. Four teachers stated that PSE is a discipline through which the learner acquires values, develops individual resources and skills. Two teachers indicate that PSE plays a very important role in the Student's training (physical, moral, behavioral, and conceptual). For five other teachers, PSE is a compulsory subject taught two sessions of 1 h per week at the middle school. They add that PSAs are the support of their teaching.

Three teachers define PSE as "a set of exercises and efforts that the student produces over a period of time to keep a healthy body and have a good feeling." Four teachers focus their definition on the physical dimension without neglecting the relationship with others.

### Link between physical and sports education and HE according to teachers

As we have clarified previously, official texts affirm that HE for students is one of the aims of PSE in middle school education. This discipline is closely linked to the health of the individual and of society. In fact, physical activity is an important health factor that can act positively on cardiovascular functions (elasticity; vascular caliber, resting frequency, and heart power). It strengthens bone density and reduces osteoporosis and develops respiratory capacity (volume and adaptation). It acts on muscle function (mobility, flexibility of daily, and professional movements), on weight control and diabetes management. It also has positive effects on the immune system (disease and physical condition), on the functioning of the brain (anti-aging, antidepressant, and analgesic), on the nervous system (regulatory effect and back pain) and on the quality of relationships psychosocial (self-esteem, motivation, belonging to a group).

Invited to explain the link between PSE and HE, eight teachers consider PSE to be a support through which the pupil learns how to keep a healthy physique and have self-esteem. According to these teachers, the practice of balanced and continuous sport over time is beneficial for health: it reduces the risk of developing diabetes and dying from a stroke or heart attack, prevent certain

cancers, strengthen the system bone and muscle, increase respiratory capacity, prevent obesity, and improve psychological well-being.

Eight other teachers point out that PSE and HE are closely linked. Both are aimed at the development of the individual through the three dimensions: bodily, psychosocial and moral. They add that in addition the PSE objective is the training of people at the physical, moral, and behavioral levels, which enriches this relationship.

Two teachers replied that there is a reciprocal link between PSE and HE fields since through PSE we educate in health and in the same time HE obliges us to practice sport. The two educations include complementary objects. For the last two teachers, it is also for the two formations to act on the physical and psychological aspects.

### The contribution of teachers in health education

Most teachers interviewed say that there is a need to contribute to student HE through PSE. These teachers put forward various reasons. Six of them mention that "the contribution to HE is aimed at producing a healthy, productive, profitable individual in society, capable of maintaining good health in order to fight against diseases or abnormalities." Four others state that "this contribution becomes easier when doing PSE." They confirm that the student is motivated, very comfortable, and available to capture easily any information provided verbally or by practice. In the same vein, three teachers affirm that PSE is a discipline acclaimed (loved) by the majority of students (large participation in PSE sessions). According to these teachers, students talk about the positive impact of physical activities on their bodies. Five teachers, who evoke health problems (obesity, etc.) observed among certain young Moroccans, stress the need to send messages related to HE.

### Learning situations in physical and sports education to educate in health

Analysis of the interviews carried out revealed that almost all teachers place their students in learning situations where they have to make decisions regarding their state of health and well-being. Warming up seems to be a situation where the teacher establishes in the learner

"The use fullness of warming up in terms of preparing the organism, on the articular level, to avoid accidents and tears, and also on the cardiovascular level, without forgetting the impact of warming up on the psychomotor level." The second situation cited by teachers is recovery after an exercise. They specify that recovery is associated with the reduction of pain, aches, and the prevention of injuries.

## How teachers think developing the HE skills through PSE

We try now to answer the sub-questions of the problem: We are interested in what the teachers wish to transmit and develop among students in HE through PSE, the skills they aim and the pedagogical approaches they use to achieve their objectives.

To our question about the themes that can be used as support for HE, the majority of teachers cited the effort by specifying its physiology, its mobilization, and its management. Three teachers cite first aid and endurance, also sports such as running, jumping, and throwing. According to four other teachers, the anatomy of the human body is a subject to be considered in PSE. Two teachers explain that all of the PSE topics are ES materials and add another topic related to safety issues.

With regard to the objectives and competences targeted, the accent is put by the majority of teachers on the acquisition of knowledge; for example, "giving several pieces of information and knowledge to young people concerning their health" or "giving instructions on the ES 'and' getting messages across." Five teachers report urging students to work and take care of their bodies. However, some teachers specify during interviews that through PSE they aim for skills such as "the integration of all conceptual knowledge during practice, in and outside the establishment" (two teachers), "Resource Development of the pupil" (one teacher) and "adoption of responsible behavior" (two teachers).

According to these results, the majority of learning activities with a cognitive dimension are focused on the strict acquisition of knowledge. Teachers insist that HE is based on various learning activities that take place mainly during PSE classes. However, they point out that the PSE teaching content has no specific health objectives. They would like to develop learning activities related to health and also to see their students practice in good conditions.

In addition, these teachers mention that they favor identical teaching for all students. While this is a job that must be part of a differentiated pedagogy given the heterogeneity of the classes. Material conditions and overcrowded classes are cited as major obstacles.

## Discussion

The question that this research wanted to answer is the following: How does PSE contribute to HE, through the pedagogical practices of teachers of this middle school discipline? The following discussion has been articulated based on the answer provided by the research results.

First, it was clear that the representations of teachers on HE are relatively diverse. However, we should point out that some Moroccan teachers are developing representations very close to current meanings of HE. For others, the presence of psychosocial skills is poorly reflected in their discourse. Finally, for teachers, the development of health prevention by informing students is sought. This results in a pedagogical orientation of an information-oriented ES but also in an orientation of an ES focused on know-how and skills.

The importance given by certain PSE teachers to knowledge in HE calls into question the procedures adopted to implement it as provided for in the Moroccan curriculum of the discipline. According to the guidelines of 2007, the objectives of PSE are the acquisition of skills and the development of fundamental perceptual-motor qualities, the acquisition of knowledge related to the fields of health and type of life and ecology, the acquisition attitudes and behaviors related to the ethics of sport and noble competition and the capacity for autonomy and responsibility. The specificity of the current PSE is teaching by the skills approach. Teachers recognize that they have difficulty minimizing their interventions and favoring the pedagogical, cognitive and socio-emotional solutions that emanate from classroom practice. They also recognize that they would like to value the student's contribution in his own learning and involve him in optimizing his learning time.

In addition, we noted a variety of definitions given by the teachers interviewed. Some speak of the development of skills and values. Others believe that discipline contributes to the training of young people. Finally, the preventive role of physical activity is highlighted by other teachers.

Teachers interviewed report that neither HE nor PSE is enrolled in school education projects (either classroom or whole school). Despite this, they say they are mobilizing PSE to help educate students' health. Most of them insist on the importance of physical fitness and the usefulness of physical activity for health purposes. The content that these teachers offer to meet this objective is mainly organized around maintenance practices: Running, stretching (for warm-up or recovery after exercise). Through these practices, students are expected to be made aware of the importance of preserving their health capital.<sup>[22]</sup> But according to our results, other themes are addressed; for example, personal hygiene, structure and functioning of the body, relaxation and safe practice of physical activities.

At the end of the interviews, all the teachers insisted on the fact that the PES knows constraints and dysfunctions

from the point of view of the continuous training, deficit in grounds, in sports facilities and material. Often, the practice of the PES is interrupted due to the vagaries of the weather. They add that the overcrowding and the overload of classes induce a lower time of students' motor engagement because of the decrease in the number of repetitions; thus, the teacher is more concerned with controlling and managing conflicts than to teach. The timetables set aside for teaching the PES are insufficient not and well invested, since the teacher barely arrives during a cycle of 6 or 12 sessions to familiarize or introduce pupils "eternal beginners" to certain sports.

It has been noted that the obstacles faced by French teachers are mainly the lack of time, the lack of training and the lack of information.<sup>[23]</sup>

At the end of this discussion, we will compare the representations and practices of PSE in the Moroccan context and other contexts (France and Quebec).

In all three countries, PSE pursues a goal of HE. However, the objectives set by the training programs which aim to make the pupil responsible for his own health seem not to be achieved. Teachers place a great deal of importance on the motor dimensions (improving physical condition) and cognitive ones (based only on the contribution of knowledge), but less on the social dimension.<sup>[12,13]</sup> Likewise, the used practices would limit the current contribution of teachers to PSE in HE from a perspective of health promotion and prevention.

Health prevention is an almost absent component of the priorities of French physical education teachers. It was noted that the obstacles encountered by these teachers are mainly lack of time, lack of training and lack of information.<sup>[23]</sup> As in the Moroccan context, this education seems to be done implicitly.

While some Moroccan teachers develop representations very close to current meanings of HE, the representation of French physical education teachers seems very restrictive.<sup>[12,24]</sup>

To conclude this comparison, in all three contexts, PSE teachers, faced with their difficulty in understanding or applying training programs, are reluctant to teach HE to their students. It is imperative to reconsider the roles of these teachers who require new professional skills.

## Conclusions

Our results confirm that, teachers perceive the existence of a close link between HE and physical education, but confusion reigns as to the complex and varied relationships between HE, sport, health

and the physical form. A committed, comprehensive and coherent approach to health problems by these teachers is rarely a feature of their physical education classes.

The teachers of PES seem through their practices to promote sport rather than "healthy" and "active" schools. It seems that in the field of physical education, "tradition" has long been a vehicle for legitimizing the status quo.

PSE has a special status compared to other disciplines school because it leads the teenager to discover the potential of his body and pushes him to develop it through physical and sports practices. It can also have a therapeutic role through its positive effects on physical and mental health. It is an adequate and suitable discipline for HE. Our research work aimed to identify the representations of teachers of this discipline about HE and PSE and their opinion regarding the inclusion of HE in their discipline.

This research has found a superficial form of inclusion of HE in PSE. It also revealed the deficiency of a set of material conditions necessary to achieve this inclusion. However, the major obstacle remains the limited conceptions of teachers about HE and how to promote it through PSE. Manidi and Dafflon-Arvanitou indicate that the gap between the intentions and the implementations relating to HE in physical education is the result of the confrontation with the various obstacles.<sup>[15]</sup> Turcotte when he showed that the gap between these intentions and these implementations is not only the direct consequence of a confrontation with the various obstacles, but is mainly related to the conception of teaching in ES to which the teachers adhere.<sup>[13]</sup> However, we can mention other obstacles specific to teaching in Morocco such as a deficit in the initial training of PSE teachers in the field of HE and the lack of their in-service training.

In the absence of a clear vision concerning physical activity and sport in relation to "healthy" and "active" schools, it seems very unlikely to influence the thoughts and practices of HE teachers; strongly attached, as they often are, to their representations of their discipline.

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## Conflicts of interest

There are no conflicts of interest.

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