COMPETENCES IN HEALTH IN COMPULSORY SCHOOLING

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Abstract

The aim of this paper is to conduct a review of the scientific literature and “grey” literature on the priority problems related to health competences that should be achieved by pupils by the end of their secondary schooling and that are pointed out by the most significant international and national organizations.

In order to obtain this information, a group of lecturers belonging to the Universities of Valencia, Alicante, Elche and the Basque Country, have been working on the Project “Competences to be acquired by young people and their teachers in health education during compulsory schooling”. The paper presented here is part of this project and is centred on the identification of those health problems to which pupils must have the capacity to respond.

To reach our objective and using the existing bibliography, a Delphi study has been conducted with experts from different parts of Spain and from different areas of Health Promotion and Education. The results of the study will enable us to define their related competences and to develop possible tools for their analysis.

Keywords: health education, competences, review, compulsory schooling.

1 INTRODUCTION

The Organic Law on Education (LOE) of May 3, 2006 [1] incorporates basic competences into the school curriculum thereby awarding them the role of curricular reference. With this legislative decision, the Spanish government adopts the findings of the international organizations (OECD and the European Commission) and the Programme for International Student Assessment (PISA) [2] on the teaching and learning of basic skills as a means to improve quality and equity of the education system. The inclusion of basic competences in the curriculum is a first step towards bringing the Spanish education system into line with international requirements.

Health Education, up until now a subject covering the whole of the school curriculum, has undergone changes with the new law and its content is distributed among all subjects conforming to each academic level, as it is agreed that it has an important role to play in the integrated training of pupils. It is accepted that spontaneous behaviours do not guarantee the maximum of people’s health, and that people’s quality of life can always be improved thanks to individual endeavour and the necessary social conditions, therefore there is a need for compulsory schooling to include health objectives in their general and global objectives, since the majority of our behaviours are learned in the first years of our life, that is our formative years, and school is the place that society has designated for the transmission of knowledge and culture. Thus, it is evident that the education system must not waste this opportunity for contributing to the formation of healthy lifestyles for the population.[3]

Therefore, our citizens, on their way through compulsory education are taught and learn knowledge of maths, language, science, etc... allowing them to form part of our society, but ...have they acquired the health competences necessary for them to function in a changing society, to control the factors that determine health, individually and collectively, to intervene in their immediate environment to make it more humane and friendly, and ultimately, to add life to years and years to life?

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And…do we understand competences applied to the field of health in the same way as those we apply to other knowledge areas such as curricular subjects language, history, science, etc.? Do these type of competences have some kind of particularity that differentiates them from the rest?

2 THE CONCEPT OF COMPETENCES

To date there has been little consensus in the specialist literature regarding the concept of competences which has been subjected to a wide range of interpretations depending on the speaker, the context in which the term is used and the use made of it. This lack of consensus has lead to competence becoming described as a "fuzzy concept" [4] and dependent on the area to which we refer.

When mentioning competence in education, this implies the consideration of social and market requirements [5]. These requirements are conditioned by a series of social changes and transformations that promote undeniable adaptations and reforms of education systems, forcing them to establish the appropriate tools and mechanisms for responding to society's needs and demands.

In this setting, the focus on competences in education makes sense and appears as the ideal solution for the challenges facing a society that demands "mobilizing knowledge to solve problems independently, creatively and adapted to the context and its problems" [6]

On the other hand, and considering an updated way of understanding the concept of competence and its current repercussion on the education field, Pérez [7] establishes six basic characteristics for understanding the term competence taking into account the works of the OECD embodied in the DeSeCo [8] document and the contributions of Hipkins [9]. These characteristics are: firstly competences are holistic and integrated, secondly: competences can be interpreted and intervened by each subject and do not rest with each individual alone, but rather in the cultural and professional wealth existing in each context. Thirdly, competences place emphasis on values and attitudes, fourthly: Competences involve a significant ethical component, which implies knowing and applying different dilemmas since every human situation is about facing, choosing and prioritising between the different moral principles in conflict. In fifth place: Competences are of a reflective nature and are transferable to new situations and in sixth place: Competences can always be improved and extended, as they are of an evolutive nature.

In summary, the differentiating features of competences are the following: they constitute a complex and changing concept of experience, that is, knowledge applied not as a mechnical impulse but rather more reflectively, are susceptible to adapting to a wide variety of contexts and are of an integrated nature, covering knowledge, skills, emotions, values and attitudes. In short, all competences include a "know that", a "know-how" and a "wanting to do" in specific contexts and situations depending on the desired outcomes.

Thus we may say that competence is what a person needs to be able to confront the problems which he or she will encounter over the course of his or her lifetime in an efficient way, mobilising conceptual (knowledge), functional (skills) and behavioural (attitudes) competences. It is in this "all" where knowledge combines with action, so that the response to a problem is efficient and coherent with a given situation.

Therefore, we may talk about competence as a whole that involves "practical knowledge, that involves knowing in action, knowing for action and knowing on action", coinciding with the characteristic concept of reflective professional theory defined by Shön [10], regarding reflective practice, this aspect in turn linked to that of competences. So, competences would be instruments that allow individuals to be trained to learn how to live and face many of the challenging and complex situations they come across, building the appropriate responses that have not previously been memorised, since the situations as they arise are unfamiliar as are their possible responses to them.

In 1996, Jacques Delors [11] published the report "Learning: the treasure within" which describes the characteristics of an education system capable of dealing with the challenges of the future. The report points out that "the ultimate mission of education is the complete social development of the individual and to enable each of us, without exception, to develop all our talents to the full and to realize our creative potential including responsibility for our own lives and achievement of our personal aims". In this sense four basic pillars are established: Learning to live together, learning to be so that our own personality flourishes and being in better conditions to enjoy increasing autonomy, judgement and personal responsibility; learning to learn: by combining enough general knowledge with the chance to

further knowledge in a certain number of subjects, which would also imply: learning to learn in order to take advantage of the opportunities offered by education over a lifetime and, finally learning to do with the objective of not only acquiring a professional qualification but also, more generally, to acquire a competence that enables one to cope with a wide variety of situations and to work as part of a team.

DeSeCo (Definition and Selection of Key Competencies) [8] advocates a more holistic model of competence [12], integrating and linking demands, cognitive and non-cognitive prerequisites, in a complex system of action. Since the advent of this project, the majority of OECD member countries have begun to redefine the school curriculum concerning the concept of competence under the influence of its usage in the labour world. In 2004, the European Commission's Working Group [13] on key competences defines them as "a set of knowledge, skills and attitudes that all individuals need for their personal achievement and development, interaction and employment, having been developed over the course of their compulsory schooling and serving as the basis for subsequent lifelong learning Thereby, key competences become an essential tool for three areas of life: A) Lifelong achievement and development (cultural capital): key competences should allow each individual to pursue personal goals in life, drawing on their aspirations and the desire to continue lifelong learning.B) Interaction and engaging with others (social capital): participation as active citizens in society, without risk of being excluded. C) Ability to work (human capital): the capacity of all individuals to hold down a decent job in the labour market.

In Spain, the concept of competence has been included in the structure of the school curriculum since the passing of the Organic Law on Education [1], following the European Parliament and Council's recommendation of 18 December 2006, and are presented as basic whereby all disciplines must collaborate in their achievement [14].

The inclusion of basic competences in the curriculum represents placing emphasis on those learning subjects considered to be essential, from an integrated and applied approach, thus their basic nature, and must have been developed by the end of compulsory schooling in order to achieve personal achievement, exercise active citizenship, full participation in adult society and the ability to sustain lifelong learning. The inclusion of basic competences allows learning to be integrated, and relate it to a wide variety of contents to be used when necessary. These competences should facilitate as much as possible the development of the potential abilities of each individual and the chance to generate lifelong learning. They are considered to be the foundation on which to construct the learning building and the place where all curricular areas and subjects converge [15].

3 COMPETENCES IN HEALTH AND HEALTH PROMOTION IN SCHOOLS

What is the link between competences in health, educating in competences and developing Health Education? To begin, we should highlight the concept of health presented by the WHO's Regional Office for Europe in 1984 that states: "Health is the ability to realise their full potential and respond positively to challenges from their surroundings". Health is considered as a resource for life, not as an object as such and states the need and importance of developing all individual capacities, in a permanent and continuous process, to improve our quality of life. That is to say, we admit to the possibility of achieving higher and higher levels of health.

All of the above must remind us of the concepts of competences in the previous section, which we could summarise by saying that we understand competence to mean the ability to resolve problems or face and cope with situations or settings with a positive attitude to doing so. These competences integrate dimensions such as knowing and understanding, linked to the learning of facts, data and concepts, knowing how to act, that implies acquiring functional competences, and knowing how to be, linked to attitudes and behaviours.

The parallelism between health competences and health education is obvious. So, if health competences form part of the school curriculum, and Health Education forms part of Health Promotion, it is worthwhile clarifying these concepts as they apply to schooling. The Ottawa Charter for Health Promotion, in 1986 [16], defines it as "the process of enabling people to increase control over, and to improve, their health" and underlines five strategies to act on the factors that determine the health status of a community: 1) Build healthy public policy, 2) Create supportive environments, 3) Develop personal skills, 4) Strengthen community action, y 5) Reorient health services.

It is clear that the concept of Health Promotion is wider than that of Health Education, but in these five health promotion strategies there are important educational aspects, as indicated by Rochon [17] In the building of healthy public policies, Health Education consists of contributing to their implementation

being fully understood; in the creation of supportive environments, its task consists of encouraging the learning of behaviours that allow protection of the environment, and the conservation of natural resources; in strengthening of community action, its role consists of encouraging increasing involovement of the community in health promotion projects; in the reorientation of health services, its role consists of putting promotion and prevention before treatment; and the final strategy, that is the development of personal skills, fits in exactly with the most specific and concrete objective of Health Education.

The Jakarta Declaration [18] on the way to lead health promotion in the XXI century, confirms these strategies and adds the idea that comprehensive approaches to health development are the most effective, and should contemplate the scenarios where they take place, and insists on education and participation as a possibility of their transformation. It goes one step further by recommending the population's health literacy, offering education and information to all, not only of risk factors, but also of the possibilities of improving one's quality of life and, in turn, of developing the capacity to participate in decision-making.

The concept of Health Education is evolving and this organization states that "it involves the learning opportunities consciously created that imply a means of communications aimed at improving elath literacy, along with improving the population's knowledge with regards health and the development of personal skills leading to the health of the individual and the community". It is certainly worth underlining the emphasis on development of individual skills and capacities as a means to working towards community health, as in the process, individual health is also improve.

Having reached this point, we cannot haphazardly place Health Education on the study programme of certain subjects, as more appropriately it forms part of the school curriculum as a whole, sharing a similar objective to competences: that is developing the individual potential of pupils enabling them to intervene in improving their quality of life.[19]

However, competences in health do possess a certain specificity that differentiates them from other competences, that is they aim to adopt behaviours, develop lifestyles, both on a personal as well as social dimension, as a way of articulating education and life. Far from a being a passing fashion, competences are the necessary link between work conducted at school and real life and between the present and future of pupils.

Health promotion cannot be considered as a series of actions aimed solely at the individual as it has a much wider field of action. As Minkler [20] points out, activities directed at the promotion of lifestyles, based exclusively on strategies aimed at changing individual behaviours, run the risk of blaming individuals for their possible lack of health, of treating disease as if it were the result of personal failure, ignoring the risks in the environment and putting aside the connection that exists between individual behaviours and social norms and stimuli. These strategies instruct the person to be individually responsible, without taking into account problems linked to settings and the influence they exercise on the individual.

In schools, the approach to Health Education has evolved from a vision of transmitting information, to the generation of attitudes and motivation that encourage behaviour change, in an attempt to educate the responsibility each individual has over his or her own health, and the need to intervene in the setting as an act of social responsibility and aiming at the improvement of both individual and community health.[21]

4 HEALTH PROBLEMS FOR THE DEVELOPMENT OF COMPETENCES

We have mentioned that we understand competence as meaning the ability to solve problems or face and handle situations or settings with a positive attitude. Also that competences in health do possess a certain specificity in that they attempt to adopt behaviours, to develop lifestyles with a significant social onus. Therefore, competences in health represent the ability and determination to solve problems related to the individual and collective health of young people.

So we ask ourselves, what are the main problems faced by young people, and that should be addressed at school? What conceptual, functional and attitudinal abilities do they need? The identification of the complex health-related problems or situations is the first step that should be taken into account when specifying and defining competences in health.

According to WHO [22], the majority of young people are healthy, but in spite of this, each year there are over 1,8 million deaths of people aged between 15 and 24, an even greater number of young

people suffer illnesses that reduce their ability to grow and develop fully, and an even greater number adopt behaviours that put their present and future health at risk. Almost two thirds of premature deaths and a third of the total morbidity rate in adults are associated with diseases or behaviours that began during their youth, among which are smoking, lack of physical exercise, unprotected sexual relations and exposure to violence.

In the case of young people in Spain, when asked about their health, we observed that they have a wide concept of it, including both physical and emotional dimensions, and they identify health with a good diet and physical exercise. The majority (91%) perceive their health as good or very good. The health problem identified in first place are drugs; and between 10 and 20% reported that they may have a mental health [23].

In education we understand health problems to mean that which requires, or may require, action on the part of a health education agent. Obviously, we are not referring to diabetes, asthma, heart disease, stomach ulcers, etc. that are diseases and problems requiring the direct intervention of the health services.

5 METHODOLOGY

1.- To perform a literature search of the scientific and official literature on the recommendations that several international (WHO, Council of Europe, Inernational Union of Health Promotion and Education, European Healthy Schools Project, Pisa Project) and national organizations (Ministry of Health and Consumer Affairs, Ministry of Education and Universities, Law on School Health of the Regional Government) have made on priority health-related problems. ([24], [25], [26]).

2.- To establish a consensus between the members of the COMSAL working group, made up of 15 lecturers from the University of Valencia, the University of Alicante, the University of Elche, the University of the Basque Country belonging to different knowledge areas (Public Health, Experimental Science, Psychology, Teaching, Pedagogics, Social Work, Speech Therapy and Physiotherapy).

3.- To consult other experts in order to identify and define the health problems and the areas to which they belong. The questionnaire was sent to 45 health experts external to the COMSAL Group belonging to 7 Autonomous Communities (Madrid, Andaucia, Aragon, Valencia Region, Basque Country, Murcia and Andalucia).

4.- Using the responses obtained, the list of health problems to be addressed in schools was decided.

The literature search was conducted by means of access to publications, reports and oficial websites of those organizations responsible for health, both national and international.

6 RESULTS

The organizations consulted and the most significant health problems they mention are presented in table 1.

Table 1. List of problems to be addressed in schools

Organization	Priority problems (related to…)
WHO	Pregnancy and premature births HIV Malnutrition Mental health Smoking Alcohol abuse Violence Unintentional injuries Mental health Violence Sexual and reproductive health
Council of Europe	New diseases, such as obesity, heart disease, cancer, diabetes and mental health problems. Chronic diseases. Health inequalities. Environmental and health related hazards.

	HIV / AIDS and tuberculosis Sexually transmitted diseases. Eating disorders. Mental disorders and suicide.
International Union of Health Promotion and Education	Physical exercise and healthy eating Wellbeing and emotional health. Sex education Safety and risk, injury and accident prevention. Drug dependency
Healthy Schools Project (SHE, European Network) [27]	Sensory problems, such as loss of sight. Malnutrition, including nutriition deficit, obesity and excess overweight. Infectious and parasitic diseases. Respiratory problems. Accidents and injuries. Poor oral health. Use of addictive substances.
Ministry of Health and Consumer Affairs [28]	Social inequalities. Perinatal care. Primary care – Healthy Child Programme Hospitalization Hospitalization at home. Mental health Public health – Social Paediatrics Health Promotion – Health Education Prevention among school age children
Regional Governments [29]	Nutrition Physical exercise Respiratory diseases Vaccination Inflicted violence Accidents Environmental health Self-inflicted violence Addictive behaviours Sexual behaviour Mental health Psycho-social disorders Inequalities Chronic diseases Dependence Infectious diseases

Once the main health problems had been identified, the research team proceded to define, according to their teaching and research experience, 8 health areas corresponding to the main health issues described in the literature. These health areas are situations or settings where we are able to find a set of interrelated health problems, on which action can often be taken jointly.

The health problems were grouped around these 8 areas and were presented to the 45 external experts. The result of their opinions is shown in table 2.

Table 2. Health problems grouped

Health Area	Related problems
Diet and physical activity	Excess weight and obesity Eating disorders Malnutrition Food poisoning and infections Sedentary behaviour Chronic diseases, diabetes, allergies and food allergies
Addictions	Smoking Intake of alcoholic drinks Use of cannabis Use of other illegal drugs (cocaine, heroin, designer drugs…). Inappropriate use of medication. Other addictive disorders
Accidents	Traffic accidents Domestic accidents Falls and burns Drowning and suffocating. Animal bites or stings
Sexuality	Early sexual relations Sexually transmitted diseases (STD) Unwanted pregnancy Sexual abuse and coercion Sexual orientation
Health Promotion	Generating healthy behaviours, habits and lifestyles Promoting healthy environments Appropriate use of social and health services
Environment	Problems caused by waster pollution. Problems caused by air pollution due to radiation, allergens, noise, excessive light, etc. Consumer problems Problems caused by disasters
Emotional	Stress Anxiety Depression Low self-esteem Violence, harassment and abuse
Hygiene	Oral health problems. Parasitism. Infectious diseases. Cancer. Allergies Personal hygiene

7 CONCLUSIONS

The aim of this paper has been to conduct a review of the scientific literature and “grey” literature on the recommendations that international and national organizations make on priority problems related to health that all citizens should know about and be able to cope with.

A list has been obtained of those problems or situations that should be taken into account in Schools and these have been classified into health areas, grouping together those with major links and that, therefore, should be addressed jointly.

These groups of problems represent a first step towards elaborating competences in health, as they can help when underlining what pupils must know, know what to do and know how to behave when facing or handling certain complex situations, so that they may each develop, both individually and collectively, the most healthy life possible.

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