

The Caged Birds

The concept of physical exercise and health for the physicians of Al-Andalus

– Written by Francisco Gallardo-Rodríguez, Spain

Ibn Rushd's (Averroes') inert body arrived at the port of Almeria in 1198. We know that it was winter. His disciples placed the embalmed corpse on the right side of a mule; on the left they placed his manuscripts, in order to counteract the weight of his body. The great mystic Ibn Arabi contemplated the scene as the procession set course for Cordoba. On seeing the difficulties the mule had in advancing, the slow and fatigued way in which it bore its load, Ibn Arabi wondered: what weighs more, the man or his works?

"Exercise is very healthy and the traces of the lack of exercise are visible in those that are imprisoned, with their yellowing faces, their dishevelled appearance and the alteration of all of their natural functions. Furthermore,

this is not exclusive to men but also occurs with all animals in captivity, like caged birds and others." – Ibn Rushd (Averroes).

THE ANTECEDENTS: HIPPOCRATES AND GALEN

The physicians of Al-Andalus considered physical exercise a valuable instrument in the conservation of health. Obviously, they were not the first.

In the field of medicine, the first reference of physical exercise in relation to health is in '*Corpus Hipocraticum*', where we find a number of allusions to physical exercise. This corpus comprises over 50 treatises, most of them short, containing everything from a series of general considerations about the profession and ethics of a physician to

studies in physiology, dietetics or hygiene. These treatises are attributed to Hippocrates of Kos (460-380 BC).

The allusions to physical exercise in the corpus are mainly to be found in three treatises on diet, ancient medicine and aphorisms respectively. The first treatise on diet covers three important dimensions of medicine still topical today: to help the ill to recover their health (curative medicine), the healthy to strengthen it (preventive medicine) and athletes to improve their condition (sports medicine).

It was fundamental for Hippocrates to know the effects of physical exercise on the human body "because they show opposite influences to the ingestion of food, but they complement each other with



Image: Imaginary debate between Averroes And Porphyry, Monfredo de Monte Imperiali "Liber de herbis", 14th century. Reproduction in "Inventions et decouvertes au Moyen-Age", Samuel Sadaune. PD-Old-100 Wikimedia Commons.

respect to health; while physical exercise naturally produces consumption of what has been accumulated – depletion – food and drink restore what has been emptied – repletion". In this healthy equilibrium, between physical exercise and diet, lies the conservation of health.

Claudius Galen of Pergamon (131-200 AD), considered to be the first sports physician in history and author of a monumental scientific body of work, had a great influence on Arab physicians. He held profound convictions on human dignity and, perhaps because of this, carried out a huge amount of work, providing medical care to slaves and also acting as physician to the gladiators in the Pergamese gymnasium. In Rome he had already been the physician of prominent aristocrats and emperors such as Marcus Aurelius, Commodus and Septimius Severus.

Of his extensive medical work, two texts allude to physical activity and its role in maintaining health: *'On the conservation of health'* and *'About physical exercise by way of ball games'* – he believed this type of

game to be the most healthy and complete form of exercise.

According to Galen, the fundamentals of health reside in the adequate use of natural things:

- air and atmosphere,
- food and drink,
- physical movement/exercise and rest,
- sleep and wakefulness,
- excretions and secretions and
- changes/alterations in mood.

The physician of Pergamon was the first to classify different types of exercise into hard and easy, depending on its intensity, global or general and analytical or localised, depending on its nature.

These classical works of Hippocrates and Galen were translated into Arabic and well-known by the physicians of Al-Andalus, especially in the 12th century, significantly influencing their understanding of physical exercise and health.

It is not within the scope of this article to analyse the allusions to physical exercise and health in medical texts written throughout the time of the Muslim presence in Spain. I will limit the discussion to the

most important contributions – that of Ibn Zuhr (Avenzoar) and Ibn Rushd (Averroes), the two most influential physicians in the history of Al-Andalus who lived in the 12th century; the so-called 'golden age of Andalusian medicine'.

THE LIFE OF IBN RUSHD (AVERROES)

Abul-Walid Ibn Rushd, known and Latinised as Averroes, was born in Cordoba in 1127 when Al-Andalus was under Almoravid rule. He was raised in the shelter of the family's prestige; his grandfather and father were qadis of Cordoba, probably of Muladi origin, meaning they were Spanish-Roman converts to Islam. His childhood was perhaps a placid one, learning to read Quranic texts and browsing amongst the shelves of the family library. It was at this time that he 'incubated the Cervantian illness' – a passion for books. It is said that Ibn Rushd (Averroes) only stopped studying on two days of his life: the day his father died and his wedding day.

During his adolescence Averroes learnt Mailiki law with his father. He studied

medicine and philosophy with Ibn Harum of Trujillo and Ibn Tufail. Ibn Harum was a renowned physician in Seville after he successfully healed the qadi's brother of an ocular lesion. Ibn Tufail, the Latin Abentofail, wrote *The Autodidact Philosopher*, a philosophical novel precursor according to specialists in literary genealogy, of Daniel Defoe's *Robinson Crusoe* and Rousseau's *Emile*. Ibn Tufail was the one who introduced Averroes into the vertiginous conspiracy of the palace, origin of most of the contentions of his life. However, before this fundamental event in Averroes' life, other cares and other hazards occupied his time. Such as receiving the so-called *iyaz*, the licence in medicine that authorised Averroes to teach the books that he had learnt, especially the Canon by Ibn Sina, between 1141 and 1146.

At a young age Averroes married Zainab. Official biographers do not refer to any daughters when they talk about his descendants. They do vaguely mention various sons, at least four, one of them being a jurist and physician like his father.

We know that Ibn Rushd (Averroes) first travelled to the Maghreb in 1153 where he collaborated in the education reform proposed by the Almohad caliph Abd al-Mumin. From this year on he made frequent trips to Andalusia and Morocco. He had been living in Marrakesh for a number of years when, in 1169 he gained the confidence of the Almohad caliph Yusuf al-Mansur. He was named qadi of Seville and, in 1171, of Cordoba, where he maintained his treasured library. In this period, Ibn Rushd (Averroes) would affirm: "Cordoba was the great land of the wise and Seville of the musicians."

In spite of the relevance of his official role, the personal life of the philosopher in these years is shrouded in mystery. He most likely gave lectures to a select group of disciples and in 1162 he finished writing his great medical work *Kulliyat* or *The book of general medicine*.

When Ibn Tufayl stepped down from the post of court physician in 1182, Yusuf al-Manusr designated Ibn Rushd (Averroes) as his successor. At the end of 1195 he was persecuted after falling out with the caliph,

suffering the humiliation of being expelled from the mosque after going there to pray with one of his sons. His books were burnt in public. He was barred from Cordoba and exiled to Lucena, the town acclaimed by Jewish nostalgia as being 'the pearl of the Sefarad'.

The causes of this persecution are controversial. Some authors have claimed that Yusuf Al-Mansur expelled him from the palace upon reading in a text of his the expression "the king of the Berbers"; an expression which his old friend used in order to avoid calling him "prince of believers" as he liked to be referred to. He was pardoned 3 years later and summoned to the court at Marrakesh, where he died a few months later on Thursday 10 December 1198, aged 72.

Ibn Rushd (Averroes) was buried in the cemetery of the gate of Tangazut for

3 months, so Leon of Africa tells us, to be taken later to Cordoba where he was buried alongside the family tombs in the Ibn Abbas cemetery.

THE LIFE OF IBN ZUHR (AVENZOAR)

Abu Marwan Abd al-Malik ibn Zuhr (1091-1161), Latinised as Avenzoar, belonged to the clan of the Ibn Zuhr, six consecutive generations of physicians, who served the Almoravid emirs and the Almohad caliphs. Some contemporary historians consider Abu Marwan Ibn Zuhr (Avenzoar) the greatest Muslim physician after the Persian al-Razi, Rhazes, even perhaps of all time after Galen. Nicolas Monardes writes that he was born in Peñaflor, between Seville and Cordoba; other authors, amongst them Leon of Africa, affirm that he was born in the medina of Seville. For many centuries he

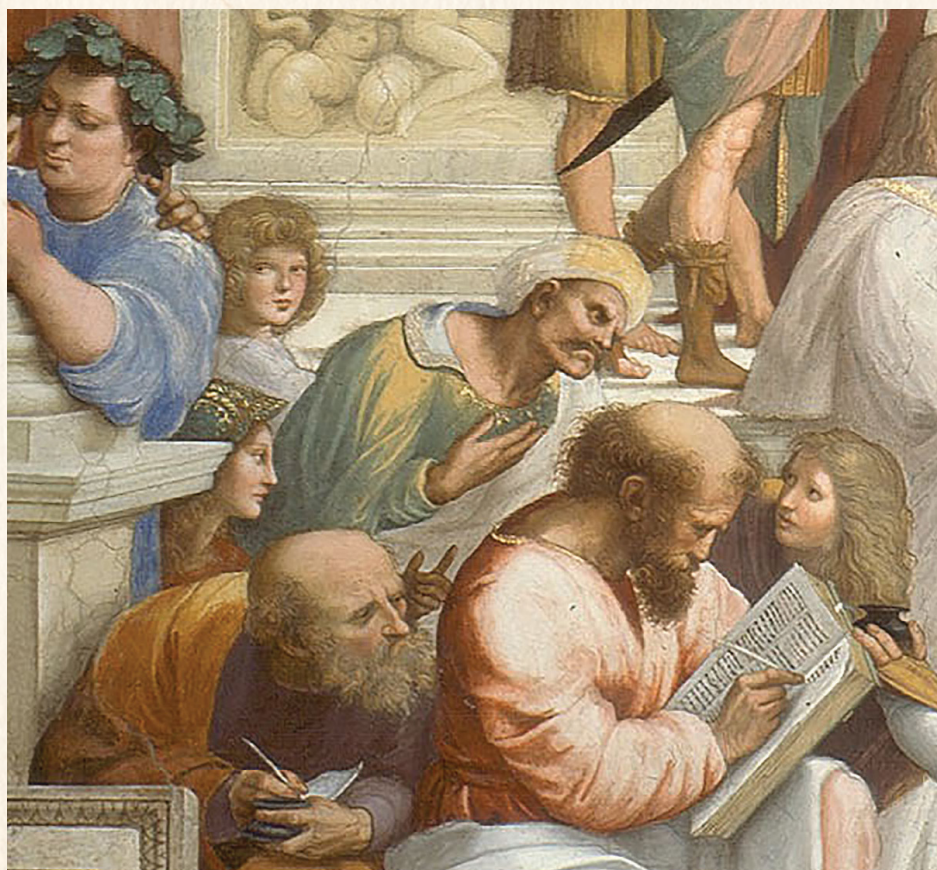


Image: Ibn Rushd (Averroes) - detail cropped from the "The School of Athens" by Raffaello Sanzio, 1511. PD-Old-100 Wikimedia Commons.

was considered to be a Jewish physician, an error that the prestigious *Bibliotheca Arabico-Hispanica* (1760) by Casiri perpetuated.

He was in no doubt an extraordinary clinician, eminently practical compared to the more philosophical and theoretical approach of Ibn Rushd (Averroes). He was the author of a number of medical treatises, of which *Kitab al-Taysir* or *Book that facilitates therapeutics and regime* stands out. The author wrote this text unwillingly as it seems it was an imposition of the caliph al-Mumin. Some, however, believe he was encouraged to write it by Ibn Rushd (Averroes), who affirms in his *Kulliyat; The book of general medicine*, that the *Taysir* was the best for anyone who wants to study treatises on therapeutics. There is disagreement as to whether the Cordobese physician was a disciple of Ibn Zuhr (Avenzoar) or not. They surely knew each other and maintained a difficult relationship hovering between competition and mutual admiration, tempered by an age difference of thirty years. Ibn Zuhr (Avenzoar) disagreed with the philosophical speculation, common amongst physicians of the time, preferring the way of experimentation and dedicating a good part of his time to surgery - an

uncommon practice. He refused to teach logic to his students of medicine and in his *al-Taysir* he harshly criticises the Sophists.

Ibn Zuhr (Avenzoar) was ahead of his time. In his writings he describes the scabies parasite, mediastinal tumours and the pericardial abscess that he apparently suffered from himself and treated. He also dealt with intestinal erosions, paralysis of the pharynx and inflammation of the middle ear. He was one of the first to recommend tracheotomy and artificial feeding via the oesophagus or the rectum. He corrected Galen anatomically, strengthening the view that, rather than relying on mere observation he must have done dissections on animal or human corpses - something that was forbidden at the time. In his works he alludes to the importance of nutrition in the prevention and treatment of illness, with detailed prescriptions and practical advice on the correct preparation of food. There were even ecological reflections on the influence of foul air from bogs on health.

Ibn Zuhr's (Avenzoar) death was caused by a *naghla*, a tumour, on his back between his shoulder blades, similar to the one that caused the death of his father, Abu al-Ala Ibn Zuhr. He was buried in Seville.

CONCEPT OF PHYSICAL EXERCISE AND HEALTH

Ibn Zuhr (Avenzoar) in his *Kitab al-Taysir* or *Book that facilitates therapeutics and regime* argues that moderate exercise, whether on foot or on horseback, was good for maintaining health.

In another text of his, *Kitab al Agdiya* or *Treatise on food*, he gives more details. Exercise depends on the type of breathing, being either strong or weak. It should be done preferably before breakfast. When breathing gets very fast one must stop and eat immediately. Finally, he agrees with Galen that the best exercise is done with a small ball.

Ibn Rushd in his *Kitab al Kulliyat* (*The book of general medicine*), gives a more extensive description. He talks about physical exercise in book VI titled '*Book of the preservation*' of health. Ibn Rushd divides it into four parts: physical exercise, massages, bathing and sleeping.

The introduction describes the benefits of physical exercise, including purifying the body, "Waste is expelled by means of physical exercise, massages and bathing. It is also expelled with the use of medicine, especially in the case of complexions that have no equilibrium."

The classical works of Hippocrates and Galen were translated into Arabic and well-known by the physicians of Al-Andulas, especially in the 12th century, significantly influencing their understanding of physical exercise and health

The section on physical exercise begins with a definition of exercise: “We say that exercise, in general, consists of the voluntary movement of the limbs”. He continues to describe the different types of exercise: total “which are the movements common to all animals” and partial “the voice is the exercise of the lungs and standing up and sitting down are exercises of the spine.”

Exercises can be intense or mild, fast or slow. Ibn Rushd (Averroes) described resistance exercises, “such as the lifting of rocks and other things” and exercises in power, “sometimes they join together in the exercise of speed and strength, as is the case of javelin throwers.”

Intense exercise “weakens the body” and mild exercise “does not eliminate everything that should be eliminated and as such a surplus is accumulated in the organs that causes the body to fatten”. He suggested the best time for physical exercise is in the expulsive phase and at all times physical activity must be adjusted to temperament. For example, if the person’s complexion is hot and dry “exercise should be done with precaution as their bodies tend to dry and produce yellow bile. In this case exercise will be mild, such as slow walking or horse riding.”

For Ibn Rushd (Averroes) the ideal exercise to maintain health is one that fulfils its purifying and toning function “hardening the limbs” in his words. In order to do this, exercise should be a balance between “intensity and calm, speed and slowness” and he recommends “playing with a small ball or something similar”, in agreement with Ibn Zuhri (Avenzoar) and Galen. One should continue with this game until the body starts to sweat and then immediately stop, before there is a change of colour to the face and the ability of movement is reduced. He warns about the health risks of malpractice in physical activity. “An activity that is difficult to endure due to the physical effort involved, as well as the practice of inadequate exercise, can cause illness.”

Kulliyat has practical advice on physical exercise for children and adolescents. From the age of 3, when the child can walk, he should carry out a number of physical exercises in order to induce tiredness. These exercises should avoid hardening the body, as this would impede natural growth.

Ibn Rushd (Averroes) contradicts Hippocrates who argued that warm bodies should rest and not move at all; the complete lack of exercise is detrimental to health. As such, he compares sedentariness to being

in prison: “Exercise is very healthy and the traces of a lack of exercise are visible in those that are imprisoned, with their yellow faces, dishevelled look and the alteration of all their natural functions. And this is not exclusive to men but occurs to all animals in captivity, such as caged birds and others.”

SPORT IN AL-ANDALUS

The word sport appears for the first time in a poem by Guillem de Aquitania written in 1117, with a meaning of delight, fun and recreation. When used in the context of Al-Andalus, the word sport means a game or pastime rather than something regulated, organised and measured.

The first Muslims of the Arab Peninsula describe games or sports. Racing is included amongst the different ways of travelling and even pilgrimaging. As such we have the news that Ibn Badr de Hudhayfah “in one night came across as many people as he would have done in eight nights by walking.”

Arab children learnt to ride a horse from the age of 8. Legend has it that all Arab thoroughbreds are descended from the Prophet Muhammad’s five favourite mares.

The so-called *niqaf* was a type of unregulated fencing that was sometimes carried out in the way of a dance inside the mosque.

According to chronicles of the time, Al-Jumahi was a wrestler so strong that “if he had his foot on a cow’s hide and ten men tried to drag it away from him, the hide would be ripped apart.”

The high jump was known as *al-qafizi*. The participants had to jump over a piece of wood following certain rules, it seems.

The game of round stones consisted in digging a hole in the ground and then throwing stones at it from a distance. The winner was the one who managed to ‘pave’ the hole.

Arab adolescents swam non-competitively, something that was considered an important part of physical education, like riding and archery. Omar bin Al-Khattab, the second caliph, successor to the Prophet Muhammad, is attributed to having said: “Teach your son to swim, archery and horse-riding.”

In the context of Al-Andalus, the word sport means a game or pastime, rather than something regulated, organised and measured



Hunting was carried out with dogs and horses to keep both the horse and rider fit and ready for military action



These sports or games formed part of the Islamic culture arriving at the Iberian Peninsula and would have been part of the daily life of Al-Andalus.

There is hardly any concrete reference to sport in Andalusian society. We cannot even be sure that polo was an important sport in Al-Andalus despite the fact that it was considered in medieval times to be the 'game of kings'.

Arab-Andalusian literature contains beautiful texts on falconry and all the aristocracy of the time was obliged to be well versed in it. Al-Mutamid, the king of Seville, believed that the love of hunting was one of the natural qualities of noble men. Abd al-Rahman II spent many a week hunting deer in the hills of Sierra Morena and used falcons in the Guadalquivir valley to catch cranes. Hunting was carried out with dogs and horses to keep both the horse and rider fit and ready for military action.

We also know that the expression 'check mate' comes from the Arabic *al-shah mat*; 'the king is dead'. The game of chess that the Arabs inherited from the Persians and later exported to Al-Andalus and Christian Europe, is the quintessential royal game; not only because one plays for the king piece but also because it is supposed to be a mathematical metaphor of the mechanisms of life - the struggle on a board of squares between action freely taken and inevitable fate. Chess was a game played with passion in the courts of Al-Andalus. Witness to this are the texts of Alfonso X The Wise in his *Book of chess* and the accompanying illustrations. The game was played

according to Arab rules where the queen and the bishop are relatively weak pieces that can only advance square by square. In 12th century Seville there were other well-known games such as *nard* or dice and *qirg*, which was a type of draughts.

In Diderot and D'Alembert's famous *Encyclopédie* written throughout the 18th century with contributions from Montesquieu, Rousseau and Voltaire, one can read: "it was perhaps these Arabs that invented tournaments and on-foot combats." In Christian Spain, minstrel songs refer to these, relating incidents and praising their protagonists.

Johan Hizinga, a great Dutch philosopher of games, mentions in his book *Homo Ludens* that warfare was the only medieval sport and tournaments were simply a ceremonial preparation for it. Tournaments were a simulated battle with two teams whose objective was to knock down the most opponents. They used arms, lances or swords, that - in theory - were not allowed. This type of game had two variants, on foot or on horseback. The Muslims favoured horseback combat with short lances. The duels, probably also in Islamic society, were an exultation of the just, the strong and the brave; a way to have God by your side. In fact, in Christian society the combat between two knights on horseback with shields and lances were known as jousts, from the Latin 'juxta', meaning 'near'.

A popular game amongst the inhabitants of Al-Andalus was that of the wooden plank, where horses were also used. There is no evidence of it until Nazari times but its

origins were probably from earlier on. The riders, while galloping, had to throw sticks at a white plank of wood. Not until the decadence of the Cordobese Caliphate did horse-racing take hold in Al-Andalus.

Among the ball games we must not to forget to mention the Palm, also described by Alfonso X The Wise in the 13th century. The game took place in two fields of different sizes. The main objective of the game was to remain in the largest field in order to win the game more easily. At first the ball was hit by hand, later with a bat and finally with rackets made from gut string. A net separated both fields. According to some authors, ball games were mainly for common people.

Finally, although in a later period, it is interesting to remember the so-called Moorish Olympic Games of Purchena (Almería) organised by Aben Humeya in September 1569, according to Ginés Pérez de Hita, author of the *Civil wars of Granada*. Amongst the games recalled as Moorish sporting activities are wrestling, rock lifting, racing, archery and stone hurling.

Francisco Gallardo-Rodríguez, M.D.

Sport and Exercise Physician

Sato Sport-Santa Justa Sports Medicine
Centre Director.

Sevilla. Spain

Contact: f.gallardo.rodriguez@gmail.com