

Seeking Balance:
Mental Health in a Changing World

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Introduction: The Birth of Medicine

Excellencies, Ladies and Gentlemen,

Welcome to Egypt. A land as old as time itself, but more pertinently for this audience, the land where medicine originated and in particular where the brain was first discovered, named and studied.

Here in Egypt, we have a different time scale. Imhotep came a century or two after King Narmer whose stela – dating from over 5000 years ago – recorded the unification of northern and southern Egypt, thereby creating the longest continuous human society with a central government within boundaries that have been recognized as “the land of Egypt” ever since. The vastness of that time scale is worthy of reflection. When Alexander the great came to Egypt, there was more distance in time between Alexander and the pyramid builders than there is between Alexander and us today!

So from the mists of time, there emerges the majestic figure of the ancient Egyptian Polymath Imhotep, known for having been the architect/engineer of the stepped Pyramid of Saqqara, precursor to all the great Egyptian pyramids that were

to follow. But Imhotep was also a medical doctor of great ability, and he was also deified by the ancients as the Egyptian God of Medicine. So it was in that land, as old as time itself, that something miraculous happened: Imhotep was the first recorded case of advancement based on intellectual merit rather than by birth or conquest. I would invite all who believe in the virtue of a merit based system to reflect on the time scale and on the significance of that advancement based on merit.

Imhotep who flourished almost 5000 years ago, is considered to be the author of a medical treatise which was handed down through the generations, and survives in a copy– the so-called Edwin Smith papyrus – which is between 3500 and 4000 years old. That document is remarkable for containing anatomical observations, diagnoses of ailments, and recommendations for cures, all of which are based on empirical observation and devoid of magical interpretations.

Thus, Imhotep should deservedly be considered the father of Medicine for having established that humans can study and understand both trauma and disease and can intervene to deal with it by surgery and herbs. It was under his tutelage that the exquisite combination of art and science that medicine represents was born. The study and understanding of both trauma and disease and the designation of treatment by surgery or herbs – the science part – was added to the skill of talking with the patient, the agility in handling the broken limbs and the dexterity of suturing – the art part. It is also interesting to note that in this earliest catalogue of interventions, the recommendations also include the cases where it is recommended not to intervene

However, the Edwin Smith Papyrus is also remarkable for something else of relevance to this particular conference: it is the first time that the word ‘brain’ appears in any language. Further, the papyrus describes realistic anatomical, physiological and pathological observations. It contains the first known descriptions of the cranial structures, the meninges, the external surface of the brain, the cerebrospinal fluid, and the intracranial pulsations.

The procedures described in the Edwin Smith papyrus demonstrate that the Egyptian level of knowledge of medicine surpassed that of Hippocrates, who lived 1000 years later than the papyrus, not to mention the original and much older text from which it was copied.

But that is not to say of course that the ancient Egyptian did not also believe in magic and resorted to incantations and other such formulae to complement what

their empirical studies and clinical observations had allowed them to diagnose as diseases and what to recommend as treatments. Again, in another very famous ancient medical Papyrus – the so-called Ebers Papyri – we have a much larger document, and it is considered the single most voluminous record of ancient Egyptian medicine known. The scroll contains some 700 remedies and magical formulas. But it is striking also for reflecting evidence of a long tradition of empiricism. For example, the Ebers papyrus suggested treatment for asthma to be a mixture of herbs heated on a brick so that the sufferer could inhale their fumes.

But of particular relevance to this conference is that Egyptians conceived of mental and physical diseases in much the same way. Disorders such as depression and dementia are covered not as spiritual conditions to be treated by magic only, but also as diseases to be treated by Doctors. These Mental disorders are detailed in a chapter of the Ebers Papyrus called the Book of Hearts. The descriptions of these disorders suggest that there was serious empirical observation that had gone in the study of these diseases.

So, Ladies and gentlemen ...

Once more welcome to Egypt the birthplace of medicine, the place where the brain was given a name and its components studied, and the home of the earliest students of mental health, the healers of millennia ago, who wanted to assist their fellow humans out of their misery by the application of that special combination of art and science that medicine remains to this day.

Alexandria: From Greece to Rome and Beyond

Leaving aside the evolution of medicine in non-western cultures such as Asia and particularly China – which deserves a separate lecture – we can trace the next chapters of the evolution of our concern with mental health to the Golden Greeks who flourished in the first millennium BC and who still dazzle us with their philosophy, science and art.

In ancient Greece, Asclepius was the god of medicine in ancient Greek religion and mythology. The staff of Asclepius, a snake-entwined staff, remains a symbol of medicine today.

Asclepius and his daughters represent the best about being and remaining healthy. his daughters are:

- Hygieia ("Hygiene", the goddess/personification of health, cleanliness, and sanitation),
- Iaso (the goddess of recuperation from illness),
- Aceso (the goddess of the healing process),
- Aglæa/Ægle (the goddess of beauty, splendor, glory, magnificence, and adornment), and
- Panacea (the goddess of universal remedy).

What a lovely household.

But it is from the most famous practicing physician of the Age of Pericles, Hippocrates of Kos, who was born in 460 BC, and died in 370 BC, that we trace the ethical oath that all doctors repeat to this day.

But that brings us back to the land of Egypt. For less than half a century after the death of Hippocrates, Alexander the Great (356 BC- 323 BC), pupil of Aristotle, would conquer the known world of his time and found the city of Alexandria. His successors the Ptolemies would turn it into the intellectual capital of the world.

So between the decline of splendid Greece and the rise of mighty Rome, there is the glorious period of the dazzling new capital of learning and knowledge on the shores of the Mediterranean: Hellenistic Alexandria, with its magnificent lighthouse and its famous ancient library. Alexandrian medicine would bring the best of the Egyptian and Greek traditions together to create a very important school of medicine.

Herophilus, who was one of the greatest figures in Alexandrian medicine and who established his own school of medicine, was a pioneer of functional physiology, and produced a very large amount of anatomical writings. He correctly identified that it is the brain that is the controlling organ of the body, and not the heart as Aristotle had said. He carried out pioneering work on the anatomy of the brain and nervous system, and is credited with the identification of the dura mater and pia mater, two of the brain's membranes; and with tracing the connections between the spinal cord, nerves, and the brain.

So important was the Alexandrian school, that even long after it had started its gradual decline, Galen, the famous Roman physician, came to study for a while in Alexandria before practicing in Rome. His teachings and writings – which incorporated much of the Alexandrian Knowledge – survived well into the

sixteenth century and formed the basis of more modern medical practices during the Renaissance.

The Golden Ages and the Dark Ages:

Europe was to sink into the so-called dark ages of the medieval period where learning remained confined to a few beacons among the monasteries with an emergence of some universities and learned societies in the later middle ages. But in the east, the golden Ages of Islam were to flourish.

The sun of Islam burst out of Arabia and soon covered the world from Andalusia in Spain through Morocco to Egypt and eastward to parts of India while stretching north to Central Asia and south to Sudan and eastern and western Africa. The Arabs who carried Islam into the world were very soon a minority among Muslims of all ethnicities and races. In those vast lands, under a largely tolerant and open system of governance, Science would flourish. In fact, after the destruction of the ancient Library of Alexandria, and the murder of Hypathia at the hands of a zealot Christian mob in 415 CE, it was in the early 9th century that much of the knowledge of the ancient world was re-collected in Baghdad's House of Wisdom and translated into Arabic.

Indeed, throughout the dark ages it was the Muslims who held up the torch of rationality and reason, while Europe was in the throes of bigotry and intolerance. And here all of you, scholars and medical practitioners alike may be interested in this amazing story:

We are at the beginning of the ninth century and the Abbasid Empire stretches from Morocco to India, and from central Asia to the Sudan. The capital is Baghdad. The new Caliph Al-Maamoun, son of the legendary Caliph Haroun Al-Rasheed of Arabian Nights fame, would give a big push to the project of the House of Wisdom. He actually offered that anyone who would translate an ancient manuscript into Arabic would receive its weight in gold. Soon, from all over the vast empire manuscripts were being collected and translated. Soon the Vizier, Al-Maamoun's minister of Finance, said that: "The scholars are cheating: they are using big letters and thick paper in order to increase the gold they will receive". To which Al-Maamoun replied: "let them be, for what they give us is infinitely more valuable than the gold we give them".... All scholars must aspire to have rulers with such priorities!

As a result of that enormous program of translation Arabic became the language of knowledge and science within less than a century. But the program also helped gather the remnants of all the copies of manuscripts from the Great Ancient Library of Alexandria that remained anywhere in the vast Abbasid empire. These were gathered back into the house of Wisdom in Baghdad as their owners rushed to have them translated and get their weight in gold. The Arabic translations were copied many times over and they traveled far and wide in the Empire and found their way to Europe through Spain and Sicily and other points.

Ah! But not all societies in the middle ages were so sympathetic to learning and books. Baghdad, with its fabulous House of Wisdom, was destroyed by Hulagu and his Mongol armies in 1258 CE.

In that world, centuries before Bacon, Descartes and Galileo, Ibn Al-Haytham (10th C) laid down the rules of the empirical approach, describing how the scientific method should operate through observation, measurement, experiment and conclusion:

“We start by observing reality ... We then proceed by increasing our research and measurement, subjecting premises to criticism, and being cautious in drawing conclusions... In all we do, our purpose should be ... the search for truth, not support of opinions” .

Medicine flourished in the Medieval Islamic World, and they also addressed Mental disorders as well as traditional diseases. We can cite among the most famous authors who wrote on mental disorders and/or proposed treatments during this period Al-Balkhi, Al-Razi, Al-Farabi, Ibn-Sina, Al-Majusi, Abu al-Qasim al-Zahrawi, and Ibn Rushd (Averroes). They wrote about fear and anxiety, anger and aggression, sadness and depression, and obsessions. Arab medical texts from this period contain detailed discussions of melancholia, mania, hallucinations, delusions, and other mental disorders. They were concerned with the links between the brain and disorders, while they also searched for spiritual/mystical meaning of the disorders.

Mental disorder was generally connected to loss of reason. And in the Islamic tradition, the mentally ill were considered incapable of running their own affairs, but fully deserving of humane treatment and protection. Indeed the Holy Qur'an states:

"Do not give your property which God assigned you to manage to the insane: but feed and clothe the insane with this property and tell splendid words to him" -- [Quran 4:5]

Muslims built the first psychiatric treatment hospital in the World. Within the first century of Islam, by order of the Umayyad Caliph Al-Walid ibn Abd al-Malik, it was founded in Baghdad in 705. Insane asylums were built in Fes in the early 8th century, Cairo in 800 and in Damascus and Aleppo in 1270. Insane patients were treated with baths, drugs, music and activities. In fact by some accounts, the physicians of the Islamic world would invent and use a variety of treatments, including occupational therapy, music therapy, as well as medication.

In the centuries to come, Latin translations of many scientific Islamic texts would play a major role in Europe. Together with works of Hippocrates and Galen, Ibn-Sina's (Avicenna's) *Al-Qanun Canon of Medicine* became the standard reference for medical science in Europe for centuries. But these Muslim progressive concepts to dealing with mental disorders would not come to Europe until the 19th century.

But before we leave these middle ages, which were dark for the people who lived in feudal Europe and golden for those who lived in far more tolerant and open Muslim empires, let us listen to the powerful voices of the scientists of the time.

Listen to the voice of Ibn Al-Nafis (13th C) on accepting the contrarian view, subject only to the test of evidence and rational analysis.

“When hearing something unusual, do not preemptively reject it, for that would be folly. Indeed, horrible things may be true, and familiar and praised things may prove to be lies.”

This was the practice in these golden years of Islam, while Europe mostly suffered in the dark ages, the inquisition was still to come, and Galileo, four centuries after ibn Al Nafis would be put on trial in 1633.

Likewise, you all know the difficulties that confronted Darwin and the supporters of the theory of evolution in western societies even as late as the 19th century. Well, listen to the words of one of the most respected scientists of islam, father of sociology, and important historian, judge and diplomat, listen to how Ibn Khaldun reflected on the world and arrived at his own theory of evolution in the 14th

century, some 500 years before Darwin and he was not attacked nor vilified for his having sidestepped the story of Adam and Eve :

One should then take a look at the world of creation. It started out from the minerals and progressed, in an ingenious, gradual manner, to plants and animals. The last stage of minerals is connected with the first stage of plants, such as herbs and seedless plants. The last stage of plants, such as palms and vines, is connected with the first stage of animals, such as snails and shellfish which have only the power of touch.

The word 'connection' with regard to these created things means that the last stage of each group is fully prepared to become the first stage of the newest group.

The animal world then widens, its species become numerous, and, in a gradual process of creation, it finally leads to man, who is able to think and reflect. The higher stage of man is reached from the world of power, in which both sagacity and perception are found, but which has not reached the stage of actual reflection and thinking. At this point we come to the first stage of man.

This is as far as our (physical) observation extends.

-- Ibn Khaldun (1332 – 1406)

This is the Muslim tradition that must be revived if the Arab World, Muslim and non-Muslim alike, will indeed join the ranks of the advanced societies of our time. Rejecting politicized religiosity, and reviving these traditions would promote the values of science in our societies... but that is for another discussion another day. Suffice to say that after the early years of the Ottoman Empire it quickly became an ossified structure and the gradual decline of the Muslim and Arab lands was to begin, while the torch would now pass to Europe.

Europe Ascendant, America Dominant

Following the European Renaissance and the scientific revolution, Europe would rule the world. The values of the Enlightenment would appear mostly in the late 16th and the 18th century and bring their fruits in the American and French revolutions and the subsequent reforms that would cover England and the rest of

Europe. The 19th century would see the full emergence of the modern state, whose seeds were found in the treaty of Westphalia. But when it came to mental health there was little improvement until the beginning of the 19th century when under the impetus of great reformers like Phillippe Pinel (1745- 1826) Bicêtre Hospital in France and William Tuke (1732-1822) in the United Kingdom, both advocates of Moral treatment of the insane, brought about a more humane and scientific outlook. Very gradually throughout the 19th and 20th centuries, our concept of mental health and the humane and scientific treatment of patients suffering from mental disorders would evolve towards its contemporary configurations.

Prior to that time, conditions in the so-called lunatic asylums were basically beastly places of confinement and mistreatment, not to say outright abuse. Some of the more famous inmates of such facilities as Charenton, included the Marquis de Sade, whose visions were romanticized in such literary works as Peter Wiess' play and Peter Brooks' film Marat/Sade and Kaufmann's film Quills.

But in the 19th century, both our prevailing ideas and the way we think about issues were challenged by a number of giants including: Marx, who introduced a dynamic view as to how societies evolve, Darwin who removed man from the center of creation just as Copernicus had removed the earth from the center of the cosmos, and finally Freud who invited us to explore the unconscious, our inner self. On the shoulders of these Giants and others such as Pasteur and Koch who gave us the germ theory of disease, medicine and mental health would transform themselves in the 20th century.

I will not go over that history which you know only too well, and which covers the establishment of your disciplines and its evolving standards of practice. Rather let me skip to a few observations about our current approaches to mental health.

Envoi: Seeking Balance

In the final analysis the judgment that someone is suffering from a mental disorder is largely due to their inability to control their behavior to keep within certain boundaries of what are acceptable social norms. But social norms and what is acceptable behavior change over time.

Take the case of Homosexuality. Until recently it had been criminalized. Oscar Wilde (1854-1900) was imprisoned for it in 1895-1897, and Alan Turing (1912-1954), inventor of the computer, was convicted and subjected to a treatment of

chemical castration through estrogen injections that pushed him to commit suicide in 1954.

Then it was deemed a disease to be treated within the context of mental health's preoccupation with behavioral abnormalities or deviance and it was listed in the DSM, the new canon of mental health practitioners in psychiatry. But it was gradually downgraded and then dropped as a formal disease reflecting the evolving political climate of the times. Then it started being decriminalized and tolerated, and the armed forces of the US adopted a "Don't ask, don't tell" policy. Now it is publicly accepted and the Supreme Court of the United States has formally ruled in favor of same-sex marriage.

So not only do the values of a society evolve, but so do the standards of what constitutes acceptable social behavior. Thus much of what we do in the domain of mental health is promotion of a high level of satisfaction or at least compatibility between individuals and the prevalent norms of the societies they live in, and in treating those suffering from mental disorders, we try to help them remain within the acceptable boundaries close to the mean of expected behavior.

But ultimately, we have many who are considered in the mainstream, who behave atrociously towards their fellow citizens as happens regularly in the domains of market manipulations and the pursuit of profits. In fact, I am not alone in asking that we need serious inputs from psychology into economics to address such things as the role of "irrational exuberance" in producing wildly inflated stocks and bonds, and bubbles in real estate prices, which are bound to burst. How and why investors run in herds, which can produce bubbles and wide swings in financial markets, and much more. Nobel Prize winning economists Shiller and Akerlof, just published a book denouncing what we consider normal and rational market behavior (Phishin for Phools, 2015).

We do not have a proper definition of what it is to be in balance with society and when an inability to be – more or less – like the rest of the people, is due to real diseases that could put the person or others in real danger and requires treatment.

But it seems to me, as an outsider, that we may have gone too far in defining any deviance from the mean as a disease for which treatment should be prescribed. The vast expansion in the diagnosis and medication of children for ADD or ADHD is a case in point. Is it really reasonable to expect that so many of our children are suffering from disorders that require medication?

The entire web of social relations is being rapidly transformed by the new social media and conventional education is being challenged in all its aspects: from the skill sets that schools seek to impart, to the socialization function that they perform for society. We need to take a good hard look at all we do and the people who will have perhaps most to contribute to that review will be you, the practitioners and promoters of mental health.

They will help us better understand the transformations that we are living through, and they will help also to diagnose the social pathologies that societies like our own are being subjected to. Here in Egypt as in other parts of the Muslim and Arab Worlds, we the intellectuals who produce art and science must hold up mirrors to ourselves and to our societies and ask why is it that our societies have become such fertile ground for extremism and violence? We must overcome fear and open windows onto the rest of the world and seek out different and more open relations with the “other”. We must promote pluralism, dialogue and understanding, and cherish diversity and the enrichment it brings. We must help move the values of our societies to embrace not only the new technologies but also that vision of a more desirable future.

As we seek balance in our lives and within our societies, we must cherish our individuality. And it is mostly by contributions of non-conformists that society advances. Many of these are also “Hyper” maniacal personalities who love to challenge the status quo, either through art or other means. That is useful to remember.

So

Ladies and gentlemen,

Welcome once more in the land of Egypt where medicine was born and where the brain was given its name. We have come a long way from the time of Imhotep, and heard strong voices from times long past as we touched upon some of the milestones that brought us to the modern concepts of mental health. May your deliberations here be productive, and may you all go from success to success.

Thank you.