

MENTAL ILLNESS THROUGHOUT HISTORY: A REVIEW ON THE DIFFERENCES BETWEEN THE CONTEMPORARY WORLD-VIEW AND THE ANCIENT GREEK WORLD

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Abstract (English)

Since the dawn of human Society, Thought has taken a fundamental role in Society. The ancient Greek world created the basis of modern Medicine. This concept is evident in Psychiatry and every field of Medicine and Surgery, not just in terms of the vocabulary and scientific nomenclature but also in the method of investigation and pathology management. This overview aims to evaluate and enhance evidence derived from the current scientific literature that the Ancient Greek world has significantly influenced modern Medicine. Furthermore, we aimed to highlight differences in the treatment and awareness in the past compared with the Modern world. The perception of disease was profoundly different from today due to the lack of scientific knowledge in ancient times. This article has extensive use of primary sources and original texts to analyze the influence of Greek thought on modern Psychiatry. In light of these results, it is essential to highlight the richness of Greek culture regarding medical knowledge, and above all, the observation of mental disease and patient care.

Abstract (Italian)

Fin dagli albori della società umana, il Pensiero ha assunto un ruolo fondamentale nella Società. Il mondo greco antico ha creato le basi della Medicina moderna, e questo è chiaro anche in Psichiatria e in ogni campo della Medicina e della Chirurgia, non solo per quanto riguarda il vocabolario e la nomenclatura scientifica, ma anche riferendosi al metodo di indagine e alla gestione della patologia. Questa panoramica ha lo scopo di valutare e valorizzare le evidenze derivanti dalla letteratura scientifica attuale che il mondo greco antico ha esercitato un'influenza significativa sulla Medicina moderna. Inoltre, abbiamo voluto evidenziare le differenze nel trattamento e nella consapevolezza nel passato rispetto al mondo moderno. La percezione della malattia era profondamente diversa da oggi a causa della mancanza di conoscenze scientifiche nei tempi antichi. Questo articolo fa ampio uso di fonti primarie e testi originali nell'analisi dell'influenza del pensiero greco sulla psichiatria moderna. È essenziale, alla luce di questi risultati, evidenziare la ricchezza della cultura greca per quanto riguarda le conoscenze mediche e, soprattutto, l'osservazione della malattia mentale e la cura dei pazienti.

Keywords: mental illness, ancient greece, psychiatry, psychosis, culture

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Introduction

Since the dawn of human Society, Thought has assumed a fundamental role in Society. Clinical implications of alteration of the mind are crucial for maintaining a global state of well-being. Nosographic classifications and descriptions currently in use have a structure firmly based on epidemiology evidence and a rigorous, verifiable, and replicable scientific method. It is also clear that since the time of most Ancient civilizations, the observation and evaluation of the alterations of thought led to creating a collective consciousness based on mass culture with repercussions on the person's state of health.

The Ancient Greek world created the basis of modern medical knowledge, and this is clear in Psychiatry and each field of Medicine, not just in terms of the vocabulary and scientific nomenclature but also referring to the method of investigation and pathology management.

Ancient fathers of Medicine, starting from Hippocrates, Galen, and Areteus of Cappadocia, still affect the actions of every physician, and their beliefs continuously influence health care.

Hypothesis

This overview aims to evaluate and enhance evidence derived from the current scientific literature that the Ancient Greek world has significantly influenced modern Medicine. Furthermore, we aimed to highlight differences in the treatment and awareness in the past compared with the Modern world.

Methods and Materials

We carried out a review of ancient Greek literature with no time limits through the Diogenes database. We searched for the main categories of mental disorder

and their treatment, starting from the abstracts. The papers were then reviewed and discussed. Furthermore, the results have been compared with the modern conceptions of Medicine, using Medline and PubMedCentral (via PubMed), PsychINFO, Cochrane Library, SciELO and LILACS, Web Of Knowledge, Scopus.

Results and Discussion

In the most archaic phase of Greek thought, which corresponds to the elaboration of Homeric poetry (8th century B.C.), we can recognize a very accurate perception of the functioning of body and soul. Generally, we do not conceive both components of man as a unity but as a set of separate organs having a particular function. Regarding the soul, the term "psyché" indicates the so-called "breath of life" that comes out of the mouth and, as such, makes the body come alive. Like the modern conception, Ancient cultures conceive "psyché" as a physical organ that lives in him while man is alive. The term "thymos" identifies the organ of the soul that is the seat of emotions, while "noos" is the one that perceives images, the seat of the intellect. The anomalous individuals' behavior is not explained as an inner quarrel's effect, as will happen in the more evolved phase of the Greek tragedy, but as the intervention of a force that acts on the psyché from the outside, a force often identified with a god.

Psychotic Disorders

One of the most well-known divinities is the goddess "Àte" ("blinding"), who leads man to commit acts of "hybris" (transgression), going beyond the sense of measure (Tab. 1). It is interesting to note how Homer, in the 19th book of the Iliad, describes it as a light divinity that hovers over men's heads, almost suggesting its ability to compromise their intellectual faculty. Another divinity linked to madness is the demon "Lyssa", able to arouse

hallucinatory delusions. Due to Lyssa, Heracles kills his wife and children. In the tragedy *Heracles* (vv. 931-934), Euripides describes the effects of his action with great attention to the external signs (Tab. 2).

The goddess "Athena", offended by the hero who disrespected her, overshadows his mind.

Ajax, caught in destructive fantasies, using harsh language and without restraint, slaughters innocent heads of cattle, mistaking them for the leaders of the Greeks. The depressive phase follows the agitation one, characterized by guilt and shame, fear of public derision, the conviction of being hated (persecution mania), and suicidal intentions. For his artistic purposes, Sophocles has masterfully used the medical culture of his time.

Torrey proposed that schizophrenia might have occurred less frequently in ancient times than today. Based on modern knowledge about mental disease, we can recognize a form of Psychosis in Heracles and Ajax's cases. However, while the absence of texts describing schizophrenia during the period examined in this study raises doubts on the evidence base used by those who believe that schizophrenia occurred in ancient times, it cannot be interpreted as proof of the absence of these disorders.

While Ancient Greece interpreted the psychotic pathology as a divine action, we are currently moving towards a neurobiological mechanism. Schizophrenia is a heritable psychiatric disorder involving impairments in cognition, perception, and motivation that usually manifests late in adolescence or early in adulthood. The pathogenic mechanisms underlying schizophrenia are unknown, but observers have repeatedly noted pathological features involving excessive loss of grey matter[] and reduced numbers of synaptic structures on neurons.

The Greeks believed that the act of *hybris* committed by an individual impacted his entire lineage, transmitting a hereditary stain called "miasma" to his descendants. We can find a striking example in the saga of the Atreids, a long history of fury and blood that involves generations dating back to Atreus and which has among the most celebrated exponents Agamemnon, killed by his wife Clytemnestra, on the way back from the Trojan War.

Considering that in archaic societies, the disease was often interpreted as the divine punishment of guilt, we cannot exclude that Greeks had already realized the existence of a law of genetic heredity in the transmission of certain diseases, even psychic ones, and had interpreted it according to the magical-religious thought of the time. The author of the Hippocratic Corpus recognized the genetic nature of some mental illnesses. If a person had epilepsy, he was likely to have children with the same vulnerability, and if a parent was phlegmatic, bilious, or splenic, some of his children might also have been.

In the more evolved phase of Greek tragedy, probably due to the influence of Hippocratic Medicine, there is a more rational description of mental illness, free from the intervention of external and divine forces.

The character of Orestes well represents this evolution, forced by the archaic conception of justice to kill his mother to avenge his father, Agamemnon.

In the *Eumenides* Aeschylus, the oldest tragedian, shows delusions that take over Orestes after his matricide by exteriorizing it with the image of Erynies (Furies), the terrible deities that persecute those who are guilty of a crime of blood. Instead, already in Sophocles' *Electra*, Orestes' suffering for his crime is wholly interior and translates into an auditory hallucination: the character sees and hears the rabid dogs of the furious Erinyes sent by his mother to avenge herself, while no one else perceives their presence.

In Euripides' *Orestes*, delusions appear

with the precision of medical terminology as an incurable disease with physical effects. Orestes defines his mental state as a "nosos" (disease) (Tab. 3), against which he seeks rest in his sleep, seen as a possibility of forgetting evils (vv. 211-216).

The association between sleep disruption and healthy brain function has a long history. Emil Kraepelin, one of the founders of modern psychiatry, noted in his first textbook in 1883 that abnormal sleep patterns and mental health are linked.

Orestes goes through a depressive phase, characterized by a sense of tiredness and squalor. He does not even have the strength to wash and asks his sister to clean the foam in his mouth (v. 220) and move his dirty hair from his face (vv. 223-224). After Orestes' depressive phase followed a recrudescence of psychotic delusion, where he is in the grip of hallucinations and sees the Erynies "with bloody eyes" (v. 255-257) coming upon him, he mistakes his sister for one of them (v. 264), while he breathes heavily and is not aware of his actions. (vv. 277 ff.)

Based on Ancient Greek and Roman literature, it is evident that although the general population probably had an awareness of psychosis, there was no evidence to meet a type of diagnostic criteria for schizophrenia in these societies. Greeks consider this phase of Orestes as a form of depression, but now we can recognize the depressive phase of Orestes as a negative symptom of a form of psychosis. Negative symptoms involve loss of function through damage to some brain areas. Furthermore, current literature considers psychotic negative symptom severity inverse correlation with functional connectivity between the right dorsolateral prefrontal cortex and the default mode network. Though the Ancient World understood a significant part of mental disorder under many aspects, this is distant from the current conception of biological Psychiatry.

There are some noteworthy examples in the Greek world regarding self-harm, the most important of which is undoubtedly that of Oedipus, who in Sophocle's Oedipus the King, after becoming aware of having stained himself with incest and parricide, blinds himself. Horrified by the consequences of his brutal gesture, Oedipus confesses to being the author, "autocheir", literally "by his hand" (v. 1331). He admits having reacted in this way as a consequence of "pathea" (sufferings, v. 1330) atrocious, involving "nous", the mind (v. 1346), interior suffering due to the inability to elaborate the action committed independently, the "mneme", the memory of evils (v. 1318). A recent systematic review of literature evidence that over half of quantitative studies found evidence to support the idea of self-harm as punishment,[] confirming a similar substantial behavior is paragoning modern and ancient world. Notwithstanding modern Medicine's progress, we still know relatively little about the deep motivation behind self-harm behavior. To the best of our knowledge, currently, we are unable to identify a systematic review of published research studies that report personal accounts of the non-suicidal reasons for self-harm offered by individuals who have harmed themselves.

Euripides, Hippolytus: obsessive thinking?

The protagonist, Phaedra, is tormented by her love for her stepson Hippolytus, a morbid passion that will lead her to try to seduce him and, once refused, to determine his death.

Confessing her inner torment to the choir, Phaedra recognizes that this compromises her thought process ("Phronousa", Gnomes v.391). It is an obsessive thought against which there is no remedy. Significantly, the term used to indicate such a remedy is "pharmakon" (drug), just as it is significant that a technical term of the medical language defines mental distress "noson", disease (v. 394).

Aelius Aristides' Sacred Speeches, written

in the 2nd century A.D., can be considered the first clinical case documented by a patient. The author, who has a mental disease, is probably identifiable with neurotic obsessiveness, as seen from the morbid attention he observes his bodily functions. He records the symptoms of the disease and the therapeutic path undertaken by Pergamon's Asclepeion with the practice of incubation. For about forty days, the patients stayed in the temple of Asclepius to receive healing from the god through dreams. Aelius Aristides, an illustrious rhetorician, searches for the causes of evil in oneiric activity, as will happen long afterward in Freudian psychoanalysis, and a healing tool in writing.

Addiction

Since the beginning of human history, people have recognized The self-therapeutic action of alcohol. (Tab. 4).

As we can read in the work of the lyric poet Alcaeus, the author defines wine as "pharmakon" against sadness, oblivion from affliction, and remedy against the thought of the precariousness of life. Ancient Greeks intended alcohol to be a helpful substance, so they used it in each social circumstance (symposium) and religious rite. In ancient Greece, the state of psychic exceptionality was linked to the sacred sphere and explained with the intervention of a deity, Apollo for prophetic inspiration, Dionysus for mystical ecstasy, Aphrodite for love, passion and the Muses for poetic inspiration. This exclusive communication with the god was perhaps perceived as a phenomenon involving man's interiority. The term widely used to define it was *éntheos*, "the god inside" (Plato Phaedrus 244b). Greeks used intoxicating substances in order to reach these altered states of consciousness. In Eleusis, during the celebrations of the Great Mysteries, the collective consumption of the *kykeon*, a mixture able

to produce hallucinogenic effects, took place. The *nepenthes* appears in Homer as "a drug that anger and pain calmed, oblivion of all pains" (Odyssey X 304-306); Helen pours this plant into the wine to relieve the pain of the presumed death Odysseus. This "pain-dissipating" plant has been identified as the opium poppy. Dionysus was considered the god of ecstasy, understood as a "going out of himself" (*ekstasis*). The ecstatic condition consisted of exasperated excitement, hallucinatory states, and mystical identification with the deity. It is probable that the consumption of psychoactive substances was part of Dionysian rites, in addition to wine, or conjugated to it. Fermented drinks based on barley or other cereals were also in everyday use.

The *Maenads*, the women who were the followers of Dionysus, probably abandoned themselves to the fury of the Dionysian rites thanks to the consumption of "sacred" drinks, where leaves, mushrooms, roots, or seeds of hallucinogenic plants macerated in the wine. Euripides described the effects in the tragedy *Bacchantes*: the women who perform the Dionysian rites are "*emmaneis*" (furious), have drool in their mouths, and rotate their distorted pupils devoid of wisdom. Referring to *Agave*, minister of the rite, who, in the grip of a hallucination, is about to dismember her son *Penteo*, the Greek text says: "*οὐ φρονοῦσ' ἄχρη φρονεῖν*", (not thinking as she should). With superhuman strength instilled by the god, the woman rips apart the flesh of her son, mistaken for a lion.

Currently, we can explain addictions on the neurobiology of the reward circuit. Forebrain dopamine circuitry has traditionally been studied by two largely independent study groups, respectively on Parkinson's disease, who study the nigrostriatal dopamine system that originates in the substantia nigra (SN), and on motivation and addiction, who studies the role of the mesolimbic and mesocortical dopamine systems that originate in the ventral tegmental area (VTA).

Conclusions

Based on collected evidence, it is clear that the deepest perception of the disease is different from today regarding its etiopathogenesis; it emerges how the lack of knowledge regarding the neural basis of the pathology has sometimes led the ancients to connote with guilt and sometimes religious or supernatural aspects the most evident epiphenomena of mental disorders. It should also be noted that ancient Greeks had already realized the existence of psychotic pathology and had tried to explain and cure it. The mental disease was interpreted as the intervention of an external, divine force in human life, often to punish someone for an act of hubris. Within an exceptional communication with gods, the solution was sought, obtained by consuming alcohol and hallucinatory substances or psilocybin mushrooms, intended as "pharmacy", pharmacological treatment. In a more advanced phase of Greek thought, corresponding to Euripides' tragedy, the influence of Hippocrates' studies can be recognized in a more rational description of mental illness. It is called with the medical term "nosos", "νόσος" as it is understood today.

Regarding the clinical aspects of the pathology, the ancient Greeks were not so far from the modern conception of mental disorders, identifying the abnormalities as such and often highlighting the longitudinal variations as in the case of bipolar disorder; this appears remarkably worthy, especially comparing their basic knowledge with the current ones, where unfortunately a widespread denial of the disease, sometimes leads to deny the very dignity of pathology to the patient, belittling the suffering and underestimating the consequences. It seems desirable to combine the ability of introspection and observation of the ancient world and modern neurobiological knowledge of pathogenetic mechanisms.

Table 1.

πρέσβα Διὸς θυγάτηρ Ἄτη, ἥ πάντας ἀᾶται,
οὐλομένη· τῆ μὲν θ' ἀπαλοὶ πόδες· οὐ γὰρ ἐπ' οὔδει
πίλναται, ἀλλ' ἄρα ἦ γε κατ' ἀνδρῶν κράτα βαίνει
βλάπτουσ' ἀνθρώπους· κατὰ δ' οὔν ἕτερόν γε
πέδησε

Zeus' eldest daughter is Ate, who blinds everyone,
cursed; her feet are light: she is not resting on the
ground, but instead, she walks over the heads of
men, she gets one of them.
(Hom. XIX 91-94)

Table 2.

ὁ δ' οὐκέθ' αὐτὸς ἦν,
ἀλλ' ἐν στροφαῖσιν ὀμμάτων ἐφθαρμένος
ρίζας τ' ἐν ὄσσοις αἵματῶπας ἐκβαλὼν
ἄφρον κατέσταζ' εὐτρίχος γενειάδος.

And he was not anymore
who was just before, but he twisted his eyes,
already delirious, and bloody the globes
Pupils protruded, and a drool
dropping down, down his vile chin

Table 3.

ὦ φίλον ὕπνου θέλγητρον, ἐπίκουρον νόσου,
ὡς ἡδύ μοι προσήλθες ἐν δέοντί τε.
ὦ πότνια Λήθη τῶν κακῶν, ὡς εἰ σοφῆ
καὶ τοῖσι δυστυχοῦσιν εὐκταία θεός.
πόθεν ποτ' ἦλθον δεῦρο; πῶς δ' ἀφικόμην;
ἀμνημονῶ γάρ, τῶν πρὶν ἀπολειφθεῖς φρενῶν

O relief of the disease, o dear balsam
Of sleep, how sweet to me didst thou come
and appropriate! O Venerable Oblivion
of evil, how provident you are Nume,
worthy that the unhappy turn to you.
Whence did I ever come here? How did I get here?
I do not remember: I lost my old wisdom.

Tab. 3

Table 4.

πῶνομεν· τί τὰ λύχν' ὀμμένομεν; δάκτυλος ἀμέρα·
κῆδ' ἴδ' ἄφρον· κολίχωναις μεγάλαις ἴστασι κίχωναις·
οἶνον γάρ Σεμέλας καὶ Διὸς υἱὸς λαθικάδεον
ἀνθρώποισιν ἔδωκε· ἕγχε· κῆρνας ἕνα καὶ δύο
πλήγαις κῆκ κεφάλαις, ἅ δ' ἄτερα τῶν ἄτερων κολίξ
ἀθήτω

Let us drink! Why are we waiting for the lamps? One finger is this day.
Put down the big, colorful cups, man.
As a forgetfulness of toil, the son of Zeus and Semele
gave the men the wine. Mix one part and two parts of water
and pour out full cups to the brim, and one cup runs away
the other fr. 335 V.

Resumo

Ekde la krepusko de la homa socio, penso ludis fundamentan rolon en la socio. La antikva greka mondo kreis la bazon de moderna medicino. Ĉi tiu koncepto estas evidenta en psikiatrio kaj ĉiu kampo de medicino kaj kirurgio, ne nur laŭ la vortprovizo kaj scienca nomenklaturado, sed ankaŭ en la metodo de enketo kaj patologio administrado. Ĉi tiu superrigardo celas taksi kaj plifortigi ekonomojn derivitajn de la nuna scienca literaturo, ke la antikva greka mondo signife influis modernan medicinon. Krome, ni celis reliefigi diferencojn en la traktado kaj konscio en la pasinteco kompare kun la moderna mondo. La percepto de malsano estis profunde malsama ol hodiaŭ pro la manko de scienca scio en antikvaj tempoj. Tiu ĉi artikolo havas ampleksan uzon de ĉeffontoj kaj originaltekstoj por analizi la influon de greka penso sur moderna psikiatrio. En lumo de ĉi tiuj rezultoj, estas esence reliefigi la riĉecon de greka kulturo koncerne medicinan scion, kaj ĉefe, la observadon de mensmalsano kaj pacienca prizorgado.

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