

Psychological and Mental Health in Graeco-Roman Egypt: Selected Disorders and Diseases*

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ABSTRACT

The publication of the ancient Egyptian medical papyri starting from the 2nd half of the 19th century revealed their ingenuity in the field of medicine in almost all its specialties; their concern for mental and psychological health was on par with that of physical health. The ancient Egyptians perfectly balanced work and leisure, which had a positive impact on their health; their overall wellbeing is largely reflected on the level of civilizational superiority. Nevertheless, experiencing negative emotions, head injuries, or other physical problems was inevitable, which was adversely reflected on the psychological and mental health of the individuals. This study deals with a selection of disorders and diseases (Depression, Epilepsy, Paraphilia, Dementia, and Hysteria). It aims to tackle the concept and various methods of treatment of these disorders and diseases, whether medical or magical approaches, in Egypt during the Graeco-Roman Period and the mutual medical influence with the Classical world.

KEYWORDS

Psychological – Mental – Disorders – Graeco-Roman Egypt – Depression – Epilepsy – Paraphilia – Dementia – Hysteria.

INTRODUCTION

Contrary to the widespread concept that ancient Egyptians were persistently concerned about the afterlife and funerary equipment, they cared much more for their lives and for the feelings of happiness and joy

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through various kinds of entertainment. Only from the Middle Kingdom texts, ninety words were used that described happiness, of which (*ḡw-ib*) is the most common that literally means ‘the broadness of heart’;¹ even so, the Late Period sounds to include more words of happiness!² Such good feelings certainly had a beneficial effect on the physical and psychological health of the ancient Egyptians.³ They also realized the importance of having breaks and holidays amid their hard work, knowing that continuous work with no breathing time or rest periods may cause some chronic diseases,⁴ e.g., Deir El-Medina workmen were taking the two last days of the ten-day week off, and occasional free days during the working week, in addition to the official holidays and religious festivals.⁵

There were, however, other involuntary harmful emotions experienced by the individuals such as sadness, anger, stress, fear, hatred, shame, in addition to brain injuries and other physical problems, which may have negatively reflected on one’s psychological and mental health causing the onset of mental diseases and disorders such as depression, epilepsy, paraphilia, dementia, and hysteria.

Due to the arrival of Alexander the Great followed by the Ptolemaic period and Roman occupation, the Greek settlers increased, which necessitated a cohesion in all aspects of life. Egypt was well known to the Greeks few centuries before Alexander III’s conquest since the time of Psamtik I, who employed Carians and Ionians as mercenaries, and Amasis who permitted

¹ McDONALD 2020, 8.

² BALIGH 2014, 64.

³ For the effect of happiness on health, *see* VEENHOVEN 2008, 449-469.

⁴ KAMAL 1998, 315.

⁵ DAVID 2003, 214.

the Greeks to settle in Naucratis in the Delta. Therefore, Egyptian culture started to be open to the Greeks to obtain all beneficial information,⁶ of which the Egyptian medicine particularly had a prestigious reputation. The image of Egyptian medicine is clearly indicated in Homer's *Odyssey* being superior even over Greek medicine as regards physicians and drugs extracted from its fertile land.⁷ Later at the time of Herodotus, Egyptian medicine enjoyed greater recognition; he showed the specializations of the physicians (e.g., for eyes, for teeth, for stomach, and for hidden diseases) compared to the Greek physicians, who were mostly general practitioners; he also clarified the excellence and fame of the Egyptian physicians, who were in high demand worldwide.⁸ Ancient Egyptian medicine influenced Greek medical knowledge and practices transferring information and usage of drugs, remedies, in addition to a similar perception about what causes illness.⁹

The concept of happiness persisted in Egypt during the Graeco-Roman period starting with the establishment of the city of Alexandria, which reflected Aristotle's philosophy of *εὐδαιμονία* '*Eudaimonia*', which literally means 'good spirit' and generally translated as 'happiness'. Alexandria's construction fulfilled the role of political education in preparing people to become citizens, emphasized authority, and built a multicultural *polis* where people can form bonds with each other in communities. These features are connected to Aristotle's political theory and ultimately help *eudaimonia* become a reality through *polis* life.¹⁰

⁶ JAMES 2009, 33.

⁷ JOUANNA 2012, 8-9.

⁸ *Ibid.*, 10.

⁹ ROSSO 2021, 103.

¹⁰ ZHANG 2021, 236.

Nevertheless, the same psychological and mental illnesses, which were attested in ancient Egypt, continued to exist due to unvaried causes. Several examples of negative feelings dating to that period were documented as follows: The **traumatic loss of the beloved ones** was one example; the Egyptians were keeping the mummies at their houses for a while before burial as confirmed by Diodorus: a text inscribed on a mummy label of the daughter of Petarsmoutheus called Takhenmet stating a year and four months.¹¹ Another negative feeling attested was **envy**; such feeling was mentioned in Egyptian papyri dating to the Graeco-Roman period. P.Mich. VI 423-4 is a petition from Gemellus, dating to AD 197, written to the governor of the division of Herakleides in the Arsinoite nome, in which he presented a grievance that he had been attacked by intruders, who broke into his fields attempting to cast a spell there at the harvest time. Gemellus used the word ‘envy’ twice to emphasize the attackers’ negative feeling of jealousy and their desire to destroy his crops: “...*They wanted to encircle my cultivator with their envy... they threw the same (brephos) at me, wanting to encircle me too with their envy...*”.¹² In addition, **debt stress** was a feeling that had a negative impact on the psychological health: there were several papyri examples of fiduciary sale from Fayum dating to the 1st century AD (P.Ryl.II 160 c, PSI VIII 908, P.Ryl.dem.45 , P.Vind.dem & Greek, 6933 , PSI VIII 910= P.Mich. V 323, PSI VIII 911 = P.Mich.V 335, BGU.III 910), in which the creditor, who sought the property as a security for his capital, compelled the debtor to write a sale contract that shows the value of the property (house), through its description, higher than the loan amount.¹³ Furthermore, **fear** was another negative feeling among

¹¹ OMRAN 2019, 35.

¹² ROWLANDSON 1998, 142-143; DANIEL 2016, 389-391.

¹³ GENDY 1990, 87-89.

the Egyptians; the Ptolemaic rulers depended on spreading fear to guarantee their full control. In the Temple of Haroeris and Sobek at Kom Ombo, King Ptolemy Philomator has the title of ‘lord of fear’: *nb snd m t3wy h3st* (*Lord of fear in the Two lands and the foreign countries*). In other scenes, the king’s fear is conveyed as a part of the divine gift (e.g., Hathor puts it in the Sun-Folk [*hnmmt*]; Haroeris puts it in the common people’s hearts; Sobek puts it in the Two Lands and the foreign countries).¹⁴

DEPRESSION (*hw3 h3ty*):¹⁵

The word ‘depression’ is derived from the Latin verb ‘deprimere’, which means ‘to press down’; it started to be used in the 18th century.¹⁶ It is defined as a mental disorder that is causing depressive, hopeless, guilty, and low self-esteem symptoms, as well as changes in appetite, sleep patterns, and energy levels. Such disorder can become chronic or recurrent causing the sufferer to become dysfunctional in everyday tasks. Psychotherapy can treat mild cases, whereas the moderate and severe cases require pharmacological treatment.¹⁷

In ancient Egypt, depression is interpreted as ‘illness/sadness of heart’,¹⁸ which is well described in Ebers Papyrus ‘Prescription 855w’: “... *his heart is shrouded in darkness ... his heart (ib) is narrowed ...*”.¹⁹ Its cause may have been biochemical or psychological. The latter case may have resulted from one’s surrounding environment²⁰ such as decline in kingship,

¹⁴ EICKE 2020, 43. For the word “*hnmmt*”, see SERRANO 1999, 353-368.

¹⁵ CHANTRAIN 2023, 26.

¹⁶ GLAS 2003, 2.

¹⁷ BERNARD 2018, 6.

¹⁸ HSU 2020, 54.

¹⁹ GHALIOUNGUI 1987, 221.

²⁰ HSU 2020, 57.

weakness of government, famine and scarcity of crops, chaotic state, and disorder, or from one's inner feelings (e.g., fear, pain, and despair).²¹ There were instructions stated by the Egyptians to avoid such illness, for instance the instruction of Ptahhotep, who warns against choosing a woman based on the beautiful body²², "*One may be deceived by an exquisite body, but then it suddenly turns to misery*".²³

There were various methods of treatment practiced in ancient Egypt such as fumigations consisting of herbs and minerals, performing rituals accompanied with spells and incantations out of believing of a demonic factor causing the mental illness, as well as psycho-therapeutic techniques like sleeping in temples expecting a miraculous cure by the god.²⁴ As for linking the feeling of depression to the heart contrary to the contemporary linkage to a malfunction in the brain, modern studies revealed that depression is related to cardiovascular disease, patients of which were found to be at a risk of developing emotional disorders. Thus, ancient Egyptian physicians were not mistaken when they were healing patients suffering from depression and emotional disorders.²⁵ Ebers Papyrus pointed out to several prescriptions for its treatment (e.g., 'Prescription 197' that recommended blood stone of Elephantine, red grain, carob and honey for healing the depression.²⁶

²¹ *Ibid.*, 59, 61-62, 69, 75.

²² O'DELL 2008, 210.

²³ SIMPSON 2003, 138.

²⁴ HSU 2020, 80-81.

²⁵ BOU KHALIL & RICHA 2014, 275.

²⁶ CARPENTER et al. 1998, 4-6.

In ancient Greece, Pythagoras (6th cent. BC) recommended Cauliflower and Scilla against depression.²⁷ As far back as the 5th century BC, Hippocrates was pioneer in describing ‘Depression’ or ‘Melancholia/Melancholy’,²⁸ which is classified as a subtype of a severe major depression.²⁹ He stated in his book *Aphorisms*: “*If fear and sadness last a long time, such a state is melancholy*”. In terms of psychopathology, depression (*dysthymia*) and fear (*phobos*) are considered the major symptoms of Melancholia, which is classified as subtype of madness;³⁰ Other symptoms may have included prolonged food aversion, hopelessness, insomnia, restlessness, and irritability. It was thought to be brought on by an excess of ‘black bile’, which is the exact English translation of the Greek term Melancholia.³¹ Hippocrates also founded the theory of the four main humours of human body, one of which is the black bile while the other three are blood, phlegm, and yellow bile; the wellbeing of the human body is dictated by their balances and imbalances.³² Treatments like bleeding and purging were used to get rid of the black bile that contaminates the blood. For two millennia, such definition and medical approach were not altered.³³ In the 4th century BC, the Greek philosopher Aristotle linked melancholy with imagination, and consequently with genius in an indirect way; he saw the great men of art, philosophy and poetry as being melancholic with a complex blend of skeptical thinking and perplexity.³⁴ Like Hippocrates, Aristotle claimed that melancholy could be alleviated by wine, aphrodisiacs, and music, and

²⁷ TZEFERAKOS & DOUZENIS 2014, 2.

²⁸ BOURIN 2020, 010.

²⁹ American Psychiatric Association 1980, 375.

³⁰ AHONEN 2014, 19.

³¹ COLP 1988, 167.

³² AHONEN 2014, 19.

³³ COLP 1988, 167. For the concept of ‘black bile’, see SAHER et al. 2021, 106-113.

³⁴ BOURIN 2020, 011.

that mental disorders were not brought on by "evil spirits" but rather by impairments in the body.³⁵

Also, medicinal plants like Lemon Balm (*Melissa officinalis*) had been used in ancient Greece, records of which date back to Dioscorides (40–90 AD). Its name is derived from the Greek words: *melissa* meaning bee and *meli* meaning honey. It was used for a variety of disorders and diseases such as depression, epilepsy, and hysteria.³⁶

Rufus of Ephesus (1st - 2nd century AD) recommended several prescriptions, primarily from plants to remove the black bile from the body. In (*On Melancholy*), Rufus recorded two recipes for healing melancholy for the purpose of evacuating the black bile. In the first recipe, he recommended drinking daisy mixed with melicrate (hydromel), whereas in the second, he prescribed grinding lovage and mint mixed with melicrate and aloe. Rufus gave another recipe in the spring season, in which he recommended taking epithymum early in the morning, pointing out that if the plant is pounded, it should be dissolved with concentrated unfermented wine.³⁷

For healing hypochondriacal melancholia and its array of gastrointestinal symptoms, Rufus recommended measures to ease the stomach, fostering a good digestion, and using little cathartics. Also, heat therapy should be applied to the hypochondriac areas of the patients. Oribasius (4th cent. AD) suggested poultices and fermentations made from a mixture of different

³⁵ NIKOLOVA et al. 2018, 18.

³⁶ PAPOTI et al. 2019, 1-2.

³⁷ ABOU-ALY 1992, 256-258.

medications that are supposed to reduce flatulence and ease gastrointestinal discomfort.³⁸

Sadness associated with depression were recorded in Egypt during the Graeco-Roman period. A Greek papyrus from Alexandria *BGU IV 1131.27-28* (= olsson 1925 no. 9) dating to AD 18 pointing out to a case that most probably suffering from depression: “*if it would be possible to write you tears, I would have described (my misery) with my tears*”.³⁹ Another case is a Greek letter (*P. Petaus 29*) dating to AD 175-200 that shows a wife’s grief due to maltreatment of her mother-in-law; this case most likely experienced depression as she threatened in a letter to her father to commit a suicide if the woman’s behaviour towards her did not change for another month.⁴⁰

Among the treatment methods used for depression in Graeco-Roman Egypt is incubation or therapeutic dreams. ‘Incubation’ is a term derived from the Latin word ‘*incubare*’ meaning ‘to lie down upon’.⁴¹ This treatment was based on the manifestations of dreams influenced by the temple’s religious atmosphere and the belief in the supernatural divine abilities and the recommended protocols of the temple’s divine healers.⁴² By spending the night in the temple, the Egyptians expected to receive dreams including messages or answers from the gods to help them to resolve their problems.⁴³ The temple priests would then decipher these dreams, and the patient was treated appropriately based on their interpretation. Dreams

³⁸ JACKSON 2008, 453.

³⁹ CLARYSSE 2017, 63.

⁴⁰ *Ibid.*, 82-83.

⁴¹ CHOKROVERTY & BILLIARD 2015, 14.

⁴² OKASHA & OKASHA 2000, 422.

⁴³ AHMED 2020, 534.

healing was especially assigned to the goddess Isis, though other gods and deified figures shared this ability.⁴⁴ Isis provided pilgrims with consultations on cure and healing during the Ptolemaic era in Abydos.⁴⁵ Also, an incubation oracle of the god Serapis began in the temple of Osiris at Abydos in the early Ptolemaic period. Other popular healing areas are the Serapeum of Saqqara, where the priests of the deified Imhotep were in charge of interpreting dreams for people seeking cure, and Deir El-Bahari upper chapel of the deified Imhotep and Amenhotep son of Hapu. In addition, ostraca from the archive of the scribe Hor (2nd century BC) in north Saqqara revealed the role of the god Thot in the oracles through dreams related to healing.⁴⁶ There are magical spells dealing with incubation: e.g., (PGM I. 262-347) is an invocation of Apollo to summon a daimon from the Underworld, and when he shows up, he is to be asked about any inquiries: dreams transmission, dreams revelations, dreams interpretation, as well as about the cause of the disease.⁴⁷

Individuals also relied largely on magical spells in the hope of recovery such as PGM IV. 1331-89 and PGM VII. 348-58. Firstly, PGM IV.1331-89 (The Powerful spell of the Bear which accomplishes anything): Combine the fat from a black bull, a black ass, a dappled she-goat, and Ethiopian cumin, then present the mixture to the bear along with phylactery hairs from the above mentioned animals that you have wrapped into a cord and worn as a diadem. Apply fat to your lips, anoint your entire body with oil or storax, and submit your request while grasping an Egyptian onion... And say aloud the following formula: "*I call upon you, holy, very-*

⁴⁴ SWANEPOEL 2009, 136; MAGIE 1953, 166-167.

⁴⁵ BAYOUMY 2022, 6.

⁴⁶ *Ibid.*, 6-7, 9.

⁴⁷ BETZ 1986, 11.

powerful... assistants of the great god, the powerful chief daimons, you who are inhabitants... of the depth, of earth, dwelling in the recesses of heaven... watchers of things not to be seen... lords of Fate... grievors of the heart... adverse daimons, iron-hearted... gladdening the heart... unconquerable".⁴⁸ Secondly, PGM VII. 348-58 (Divination by means of a boy): Speak after placing him on the ground and a boy with dark skin will show up. Formula: "*I call upon you, inhabitants... of the depth, of earth... grievors of the heart, adverse daimons, ironhearted ones ...*".⁴⁹

The two above mentioned spells are calling upon the guardian figures/demons/supernatural beings of the Underworld and stating some of their traits (e.g., 'grievors of the heart' stated in both spells; 'gladdening the heart' mentioned in spell PGM IV. 1331-89) to act as mediators between the gods and human beings. Though they are endowed with certain abilities, they are assigned particular tasks that are to be carried out according to the gods' will.⁵⁰ Apparently, they believed that such beings have the power to relieve the heart from its illness.

Another method of treatment was seeking the gods; an example is SB 5.8027. It is a letter from Tarem written in Greek addressing her father in the Arsinoite nome dating to the 2nd to 3rd century AD,⁵¹ in which she acknowledged the healing power of the god:⁵² "*... We are thankful to the gods that he has recovered his mind and his health*".

⁴⁸ *Ibid.*, 63-64.

⁴⁹ *Ibid.*, 127.


⁵⁰ RUCARELLI 2010, 86.

⁵¹ BAGNALL & CRIBIORE 2015, 373.

⁵² ABDEL HAMEED et al. 2020, 39.

EPILEPSY:

Epilepsy is defined as a disorder of the brain characterized by repetitive, unprovoked seizures, with or without loss of consciousness, because of an anomalous high or synchronized activity of the neurons in the brain.⁵³

Epilepsy was attested in ancient Egypt. It was most probably referred to as *nsy(.t)* .⁵⁴ The demon (*nsy*) and his female counterpart (*nsy.t*) could have had a negative effect on different body parts⁵⁵ and may have caused fevers⁵⁶ that could be fatal.⁵⁷

The earliest text reporting epileptic convulsions was Edwin Smith Surgical Papyrus dating to 1700 BC (cases 4, 7, 29, 40, 42);⁵⁸ in case 4 that describes a man with a gaping head wound, the Egyptians interestingly recorded an instance, in which a physiologic reaction was triggered by direct brain stimulation: when the wound is palpated, the man shudders exceedingly.⁵⁹ It is also recorded in Ebers and Brooklyn Papyri.⁶⁰

The word ‘epilepsy’ was originated from the Greek verb ‘*epilambanein*’ (ἐπιλαμβάνειν), which means ‘to seize’, ‘possess’, ‘take hold of’, or ‘attack’.⁶¹ Due to the initial belief in the disease's divine origin, it was

⁵³ American Psychiatric Association. *Epilepsy*. Available at: <https://dictionary.apa.org/epilepsy> (accessed September 22, 2022); FODJO 2020, 1.

⁵⁴ BORGHOUTS 1978, 104 (n. 127), 35-37.

⁵⁵ HAMMAD 2018, 13.

⁵⁶ SZPAKOWSKA 2009, 801.

⁵⁷ HAMMAD 2018, 13.

⁵⁸ MAGIORKINIS et al. 2011, 131.

⁵⁹ KACULINI et al. 2021, 2.

⁶⁰ GHALIOUNGUI 1987, 192; GOLDING 2020, 233-234.

⁶¹ BALOYANNIS 2013, 2.

referred to as the “sacred disease”. It was believed that the Moon goddess, Selene, who was called ‘Luna’ by the Romans, was punishing the sinners ‘lunatics’ by casting a poisonous miasma on them, which causes epilepsy.⁶² Since epilepsy was interpreted as a bad omen from the gods, the Senate proceedings during the Roman period were suspended or put off whenever a member had been struck by epileptic seizure.⁶³

The first Greek physician to reject such religious connection was Alcmaeon of Croton (6th century BC) believing that the brain is the seat of mental functions; i.e., the source of memory and thoughts, and that epilepsy is a brain's disease.⁶⁴ However, studying epilepsy was first approached scientifically by Hippocrates, who made suggestions about potential causes and treatments.⁶⁵

As for treatments, the Ebres Papyrus recorded four prescriptions 752, 753, 754 and 756 relied on sedative substances for relieving the cramps such as wine, fermented vegetable and sweet beer.⁶⁶

During the Late Period, a prescription to drive out epilepsy is mentioned in Brooklyn Papyrus (Prescription 43c),⁶⁷ in which the roots of the snakewood plant – brought from the Eastern Desert – was crushed in wine or sweet ointment to be swallowed by the patient, whereas the plant’s leaves and stems were crushed in moringa oil to cover the body of the patient.

⁶² MOOS et al. 2023, 85; MAGIORKINIS et al. 2011, 132.

⁶³ MAGIORKINIS et al. 2011, 133.

⁶⁴ BALOYANNIS 2013, 2.

⁶⁵ MAGIORKINIS et al. 2011, 133.

⁶⁶ GHALIOUNGUI 1987, 192.

⁶⁷ GOLDING 2020, 233-234.

The Egyptian physicians used trephine for curing mental disorders like epilepsy and for the release of negative spirits or demons.⁶⁸ Papyri did not mention this method, yet there are few examples of trepanned skulls. One example was found in a deep pit at El-Lisht (certainly attributed to one of the 12th dynasty noble families) by the Czech anthropologist Hrdlicka, who notified James Breasted of his discovery.⁶⁹ Another example is the trephined skull of princess Horsiesnest Meritamun from the 25th dynasty that shows perfect healing edges indicating that she lived after the surgery⁷⁰ (Fig. 1).

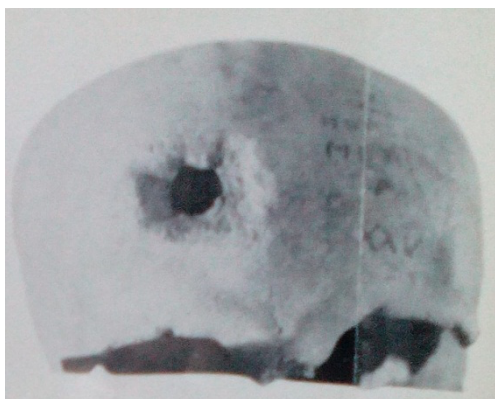


Fig. 1. The skull of Princess Horsiest-Mert-Amon is displayed at Museum of Anatomy Department Faculty of Medicine, Cairo University. After GHALIOUNGUI 1965, pl. IX(b).

In ancient Greece, Pythagoras (6th century BC) stressed the value of one of the medical herbs “Anis” for epilepsy.⁷¹ In *Naturalis Historia*, Pliny said that Pythagoras confirms that people will never experience an epileptic attack if they are holding that plant in their hand; therefore, as much as possible of that herb should be planted close to the house.⁷² The anise plant, *pimpinella anisum*, has been used as diuretic, stomachic, expectorant,

⁶⁸ SULLIVAN 1998, 113.

⁶⁹ NUNN 1996, 169; COLLADO-VÁZQUEZ & CARRILLO 2014, 435.

⁷⁰ GHALIOUNGUI 1965, 92-93; RICE 1999, 71.

⁷¹ TZEFERAKOS & DOUZENIS 2014, 2.

⁷² BOSTOCK & RILEY 1856, 273.

spasmolytic,⁷³ and carminative agent.⁷⁴ The seeds have a strong fragrant flavour that is both fennel-like and reminiscent of liquorice. In addition, its fruits contain an essential oil.⁷⁵ *Paeonia officinalis* plant was also recorded for treating epilepsy since Hippocrates' time (470-377 BC); its seeds and roots were usually used.⁷⁶ Hellebore was one of the notable herbal remedies widely attested in the 5th cent. BC in the Graeco-Roman world; whether alone or as a component of medicinal mixtures, it was linked with a variety of usages, among which is curing epilepsy.⁷⁷ Pliny said that hellebore was taken to enhance the cognitive function and is recognized as a cure for epilepsy.⁷⁸ Furthermore, Dioscorides's accounts (c. 40-90 AD) demonstrated that black hellebore was a widely used epilepsy remedy.⁷⁹

Diocles of Carystus (c. 375 BC – c. 295 BC), who was next in age and fame to Hippocrates in Greece as Pliny said,⁸⁰ implemented a variety of remedies for epilepsy, including phlebotomy,⁸¹ which is a Greek word (*phlebos* meaning vein; *temnein* meaning to cut).⁸² A papyrus including medical text that was attributed to Diocles had been found in Egypt.⁸³ Worthy of note is

⁷³ BOULOS 1980, 187.

⁷⁴ ESTES 1993, 140.

⁷⁵ MANNICHE 1989, 135.

⁷⁶ AHMAD et al. 2012, 85.

⁷⁷ Many non-medical and non-scientific Greek and Latin sources describe hellebore as a remedy for insanity and neurological disorders; The first record of its usage was Aristophanes' play 'The Wasps', which was performed in Athens in 422 BC. OLIVIERI et al. 2017, 198-199.

⁷⁸ OLIVIERI et al. 2017, 199.

⁷⁹ BRILLATZ et al. 2020, 2.

⁸⁰ Pliny the Elder, *The Natural History* 26.6. Available at:

<http://www.perseus.tufts.edu/hopper/text?doc=Plin.+Nat.+26.6&redirect=true> (accessed November 2, 2022).

⁸¹ MAGIORKINIS et al. 2011, 133.

⁸² PARAPIA 2008, 490.

⁸³ JAEGER 1940, 401.

that the earliest practice of bloodletting was in ancient Egypt⁸⁴ dating back to 1550 BC,⁸⁵ which was performed by scarification.⁸⁶ It is recorded in the Ebres Papyrus in (Prescription 501) “*Then you should make the physician's incisions...*”⁸⁷ Furthermore, there are several types of knives recorded in the medical papyri: The Ebres Papyrus recorded (*dwt*)-Knife (Prescription 867) for dealing with the bleeding lesions;⁸⁸ (*Hpt*)- Knife (prescription 767) to deal with the ears, as well as (*swt*)-reed as a knife (prescription 876).⁸⁹ It is likely that the followers of Hippocrates in Alexandria used bloodletting as he recommended this method for treating epilepsy and other diseases based on his belief in the four components of human body (humours), of which Galen considered blood as being the most dominant, thus the practice of bloodletting gained great importance.⁹⁰

Praxagoras of Cos (second half of the 4th century BC), who was one of the earliest figures of Alexandrian medicine,⁹¹ recommended aggressive measures like cauterization, which together with incisions were previously avoided by Pythagoras.⁹² Aurelius Cornelius Celsus (c. 25 BC –AD 50) refers to epilepsy as *morbis comitialis*, and in the case of obstinate cases, recommends sexual relations with boys or the warm blood of fallen gladiators as a remedy.⁹³ Galen of Pergamun (AD 129–216), with whom Roman medicine reached its peak, studied in Alexandria prior to going to

⁸⁴ BASHIR & ABDARABO 2020, 839.

⁸⁵ PAPAVERAMIDOU et al. 2011, 1844.

⁸⁶ PARAPIA 2008, 490.

⁸⁷ GHALIOUNGUI 1987, 137.

⁸⁸ NUNN 1996, 166.

⁸⁹ MORKT & TYLDESLEY 2016, 128.

⁹⁰ THOMAS 2014, 72.

⁹¹ SERAGELDIN 2013, 399.

⁹² TZEFERAKOS & DOUZENIS 2014, 2.

⁹³ MAGIORKINIS et al. 2011, 134.

Rome to practice.⁹⁴ Galen agreed that therapeutic trepanation was necessary for some skull fractures for the purpose of releasing pressure.⁹⁵ Aretaeus of Cappadocia – one of the prominent medical scholars of the Graeco-Roman antiquity⁹⁶ who lived in Alexandria from the late 1st cent. to early 3rd cent. AD⁹⁷ – recommended trepanation for epilepsy after traditional approaches had been failed.⁹⁸ Also, magical Greek papyri mentioned remedies for curing epilepsy: PGM XCV. 7-13 pointed out to the possible use of the blind-rat or mole-rat (*Spalax lypblus*) as the remedy for the epilepsy;⁹⁹ PGM XCV. 14- 18 provided a remedy to be given thrice in the month for people suffering from epilepsy¹⁰⁰; PGM CXIV. 1-14 stated a spell for epileptic people to be protected from all evil deeds, demonic possession, and mute daimons.¹⁰¹

PARAPHILIA:

The term Paraphilia was first used in the early 1900s,¹⁰² the roots of which came from the Greek words: ‘*para*’ meaning ‘beside, aside’ and ‘*philos*’ meaning ‘loving’.¹⁰³ Paraphilia is defined as sexually stimulating fantasies, urges, or behaviours that are frequent and intense, lasting for a minimum period of six months, and usually involve: i) non-humans, ii) self-suffering/humiliation, or that of one’s spouse, iii) children or non-consenting individuals.¹⁰⁴ Paraphilia includes several types such as

⁹⁴ SERAGELDIN 2013, 396, 398.

⁹⁵ TULLO 2010, 168.

⁹⁶ TEKINER 2015, 508.

⁹⁷ TSOUCALAS & SGANTZOS 2016, 120.

⁹⁸ TULLO 2010, 169.

⁹⁹ BETZ 1986, 305 and n. 2, 306.

¹⁰⁰ *Ibid.*, 306.

¹⁰¹ *Ibid.*, 313.

¹⁰² BROWN et al. 2023, 429.

¹⁰³ MOSER & KLEINPLATZ 2020, 382.

¹⁰⁴ MCMANUS et al. 2013, 2.

homosexuality, pedophilia, zoophilia, and necrophilia. Homosexuality was scarcely attested in ancient Egypt; such behavior was mainly practiced against enemies as Egyptians believed that implanting semen into another man's body meant gaining power over him,¹⁰⁵ and was perceived as offensive and shameful.¹⁰⁶ One of the earliest stories is the various versions of the “Contendings of Horus and Seth”, of which a short version is a papyrus from Kahun, dating to the 12th dynasty, describing how Horus was sexually dominated by his uncle Seth who found his nephew desirable.¹⁰⁷ There were very few examples of homosexual activities for pleasure, of which a well-known example is the adventure of King Neferkare (Pepi II) of the 6th Dynasty and the General Saset, ¹⁰⁸ which is recorded on three documents dating to New Kingdom and Late Period (Papyrus Chassinat I [Papyrus Louvre E 25351], Wooden Tablet preserved at the Oriental Institute Chicago [OIC 13539], Ostraca Deir El-Medina [O.DeM 1214] preserved at the IFAO, Cairo).¹⁰⁹

There were several examples of homosexuality during the Graeco-Roman period. A Greek papyrus from Oxyrhynchus (P. Oxy. 42.3070) dating to 1st century AD documenting a letter from two men named Apion and Epimachus addressing a third man called Epaphroditus; the text is an indecent proposition from the two men informing the latter man that if he allows them to bugger him, they will stop beating him!¹¹⁰ Also, there is an account by Clement of Alexandria, in which he expressed his disdain at the

¹⁰⁵ MANNICHE 1977, 14.

¹⁰⁶ GERIG 2012, 34.

¹⁰⁷ BALIGH 2014, 60.

¹⁰⁸ GERIG 2012, 36-37.

¹⁰⁹ VAN DIJK 1994, 387.

¹¹⁰ MONTERRAT 1996, 136, 138.

kinaidoi's feminine characteristics and their denial of masculinity¹¹¹ stating that they were dressed in elegant transparent clothing, perfume-scented, chewing gum, and embellishing their hair like ladies.¹¹² There were other Greek documents mentioning *kinaidoi* or in some cases the word was not mentioned, yet comprehended through the behaviours and characteristics linked to them by historic writers: O.Camb. 1 (250 BC), P.Fouad I 68 (180 AD), P.Tebt. I 208 recto (95/62 BC), P.Col.Zen. II 94 (III BC), C.Ptol.Sklav. I 91 frag. 5 = SB III 7182, PSI V 483 (258/7 BC), P.Enteux. 26 (221 BC), P.Dubl. 14, P.Hibeh I 54 (245 BC).¹¹³ Furthermore, there is little evidence referring to the presence of female homosexuality during that period, of which (*Suppl. Mag. I no. 42.I-25*) is an example that is a love spell used by a woman named Sophia to draw the attention of another woman named Gorgonia; this papyrus was discovered in Hermopolis Magna dating back to the 3rd – 4th cent. AD.¹¹⁴

Pedophilic disorder is child sexual abuse, of which there is textual evidence dating to the Graeco-Roman period in Egypt. The Greek sources deal with boys' physical attractiveness stating that the boy is most desirable to an adult suitor when he is approaching puberty and starts to grow facial hair.¹¹⁵ In Alexandria, Callimachus described real events and situations; he says: "*There are boys, who play hard to get livelihood, mercenary boys, promiscuous boys*". P.Tebt. I 104. 16-22 is a marriage contract contains statements referring to the practice of (*Paedophilia*); this contract was between Philiscus and Apollonia at the Fayum town of Tebtynis in 92 BC.

¹¹¹ JULIUSSEN-STEVENSON 2008, 31 and n. 114; MONTERRAT 1996, 148.

¹¹² WILSON 1867, 284.

¹¹³ SAPSFORD 2015, 104-113, 115.

¹¹⁴ ROWLANDSON 1998, 361-362.

¹¹⁵ MAGALHÃES 2020, 109.

This contract included an article stating that Philiscus is not allowed to take a spouse other than Apollonia, nor is he allowed to maintain a concubine or a boy lover.¹¹⁶

Zoophilia is mostly evidenced in the imagination of the ancient Egyptians. A *Dream Book* – probably dating back to Ramesses III – anticipated the combination of man and pig, man and kitten, and man and jerboa. Herodotus narrated an odd rite that occurred in Mendes province about a woman who was being engaged in sexual activity with a male goat. As the he-goat was a sacred animal, this performance would have been religiously significant. According to Diodorus, the act of women exposing themselves in front of the new Apis bull strengthened its generative power; thus, the divine goat might indicate his virility. A *Demotic Dream Book* dating to the Roman Period deals with women's dreams; it records species of animals that engage in intercourse with women in dreams such as mouse, donkey, horse, wolf, lion, ram, goat, crocodile, snake, falcon, baboon, and ibis. There is also another context of the concept of engaging in sexual activity with an animal (esp. donkey), considering it as a curse: “*May a donkey copulate with his wife and his children*”.¹¹⁷

Necrophilia is another type of unnatural sexual practice attributed to the ancient Egyptians.¹¹⁸ Herodotus said that regarding the embalming process, the corpses of women of exceptional beauty and spouses of prominent figures were not given to the embalmers immediately after death, but rather after a period of 3 or 4 days since it has been reported that an embalmer

¹¹⁶ MONTERRAT 1996, 146, 155.

¹¹⁷ MANNICHE 1977, 15-16; SZPAKOWSKA 2013, 2221.

¹¹⁸ MANNICHE 1977, 16.

had been caught while having sex with a fresh dead body of a women and was condemned by his co-worker.¹¹⁹ There is a surviving work of the ancient Greek writer, Xenophon of Ephesus, that is the story of Anthia and Habrocomes dating to the 2nd century AD, in which necrophilia is attested. At the beginning of fifth/last book, Habrocomes travels from Egypt to Syracuse in pursuit of Anthia. There, he makes the acquaintance of a fisherman called Aegialeus, whose place of origin was Laconia. Aegialeus then tells him his tale, including how a Spartan girl named Thelxinoe captured his heart, and how the two of them fled together to prevent her from being compelled to wed someone else. Then, Aegialeus tells Habrocomes that Thelxinoe died not long ago, but he did not bury her in accordance with Greek customs. Rather, he mummified her corpse following the Egyptian traditions so as to keep her in their bed forever. Surprisingly, Habrocomes displayed no repulsion, but rather jealousy of Aegialeus instead of disgust, hoping to find Anthia, even as a dead body, and to experience the same pleasure that Aegialeus does.¹²⁰ There were very few references to sex with corpses in the Greek sources, from which it is comprehended that such behaviour was considered unnatural and unacceptable.¹²¹

As for treatments, ancient Egyptian physicians did not develop an explicit drug to treat sexual disorders, but they relied on advice and warnings

¹¹⁹ HERODOTUS, *The Histories* II, 89. 1-2, A. D. Godley (ed.), Cambridge, Harvard University Press, 1920. Available at: <https://www.perseus.tufts.edu/hopper/text?doc=urn:cts:greekLit:tlg0016.tlg001.perseus-eng1:2.89.1>;
<https://www.perseus.tufts.edu/hopper/text?doc=urn:cts:greekLit:tlg0016.tlg001.perseus-eng1:2.89.2> (accessed December 3, 2022).

¹²⁰ MAGALHÃES 2020, 223-224.

¹²¹ *Ibid.*, 34, 226.

against these practices such as in *The Teaching of Ptah-Hotep*, the 32nd maxim, which involves instructions to avoid copulating with a “woman-boy” and giving reasons, as well as in *The Book of the Dead*, (A20), in which the dead man is reciting one of the negative confessions saying that he was not engaged in sexual activity with a boy.¹²²

The Greeks and Romans, on the other hand, relied on issuing laws regulating these practices. In Plato’s Book I of the Laws (636c) stating that the pleasure felt through the male-female union is thought to originate from nature, whereas copulation of two persons of the same sex is perceived as being against nature.¹²³

According to the Greek laws, love between two males - whether adults or pederasts – is considered to be a sexual behaviour that is against both animal and human nature. A later section of the text reiterates this concept¹²⁴ (Plato’s Book I of the Laws [8.836c]) adopting a law that predates Laius, which prohibits sexual activity between people of the same sex citing an example from nature as an evidence, that is the behaviour of wild animals showing that males do not touch males as it is unnatural.¹²⁵

Also, an important text from ancient Athens is “Aeschines’ Against Timarchos”, which is a speech dating to 346/5 BC pointing out in part to a set of laws from Solon’s time protecting boys from sexual abuse stating that the boys’ teachers are required not to open the schools before sunrise

¹²² GERIG 2012, 36.

¹²³ Bury 1926, 41.

¹²⁴ MAGALHÃES 2020, 21.

¹²⁵ PLATO, *Laws*:

<https://www.perseus.tufts.edu/hopper/text?doc=urn:cts:greekLit:tlg0059.tlg034.perseus-eng1:8.836> (accessed December 6, 2022).

and to close them before dusk; no one is allowed to enter the school while the boys are inside except for certain relatives; anyone who violates these rules will be sentenced to death; no individual who has attained manhood is allowed entry to Hermaia contests; people are required to appoint *choregoi* who are aged over 40 . This law shows the concern of lawmakers to secure children. Therefore, they held school teachers responsible for the amount of time children spent in schools. Therefore, the law stipulates that the school must be opened after sunrise and before sunset, meaning that everything will occur in daylight. If a mistake is made, the perpetrator will be punished and his family's reputation will be destroyed. The law states that if another person attends the school, he or she may be punished with death. On the other hand, the law also put certain regulations as regards contact between old men and children in gymnasium setting a minimum age requirement for becoming a *chorego* as it was assumed that a man who is over 40 can better control himself and refrain from trying to seduce a child.¹²⁶


As regards Zoophilia, Plutarch's Gryllus condemns people who engage in sexual activity with animals, calling it a crime against nature and something that animals never do because they are not willing to have sex with other species. Athenaeus praises man who act civilized and refrain from bestial behaviour, like having sex with animals.¹²⁷

¹²⁶ MAGALHÃES 2020, 135-136.

¹²⁷ *Ibid.*, 207-208.

DEMENTIA:

It is a term that is generally used for the decline of memory and other cognitive abilities (e.g., executive function and language), occurring from various causes such as head injury and alcohol use disorder.¹²⁸

Ebers Papyrus recorded dementia symptoms in (*Prescription 227*) “...to remove poison “aaa” (ꜥꜥ) from the heart, remove fleeting forgetfulness and heart injury...”¹²⁹ According to this prescription, (*aaa-disease*) (ꜥꜥ) ¹³⁰ was dementia’s primary cause. (*aaa-disease*) (ꜥꜥ) was an evil spirit that took the shape of an incubus and used its poisonous sperm to impregnate its targeted victims while sleeping.¹³¹

The Greek philosopher, Pythagoras, recorded dementia. He identified six stages of human age, of which the last two were defined as a period of both mental and physical deterioration with the last phase coming as the individual gets closer to death; there are instances where brain reaches the degree of absurdity attested in early childhood.¹³²

As regards treatments, ancient Egyptian physicians recommended herbal substances along with honey and ocher, such as Ebers Papyrus *Prescription 227*: “...(ins.t)-plant 1/8; figs 1/8; celery (mꜣt.t) 1/16; ochre (stj) 1/32; valerian (šꜣšꜣ) 1/8; honey (by.t) 1/32; water 10 ro”.¹³³

¹²⁸ American Psychiatric Association. *Dementia*. Available at: <https://dictionary.apa.org/dementia> (accessed November 18, 2023).

¹²⁹ OKASHA & OKASHA 2000, 413, 418, 420.

¹³⁰ FAULKNER 1964, 38.

¹³¹ NUNN 2002, 63.

¹³² BERCHTOLD & COTMAN 1998, 174.

¹³³ GHALIOUNGUI 1987, 77.

During the Graeco-Roman period in Egypt, physicians recommended using magical spells, of which the following are two examples. The memory spell ‘PGM III. 410-23’ involves making a silver disk amulet engraved (Fig. 2) with an appeal to the moon goddess asking her to enter into the person’s mind and grant him memory.¹³⁴



(Fig. 2) A magical figure recorded in (PGM III. 410-23) to restore memory. After BETZ 1986, p. 29.

The spell PGM III. 424-66 greets Helios Mithras and asking him to grant the ritualist with foreknowledge and memory (e.g., knowing what in humans’ minds in advance) and to help him recall what he saw and heard while consulting the divinity or having a dream vision.¹³⁵ The memory spell PGM III. 467-78 asks the god Helios to enter into the ritualist’s heart and grant memory to his soul and eyes so that anything that was heard once would stick to his memory for the rest of his life.¹³⁶ The spell PGM I. 232-47 is a rite for memory written with myrrh-ink and provides a detailed recipe for that ink.¹³⁷

¹³⁴ BETZ 1986, 28-29.

¹³⁵ *Ibid.*, 29-30; DIELEMAN 2019, 298.

¹³⁶ BETZ 1986, 30-31.

¹³⁷ *Ibid.*, 9.

HYSTERIA:

The term ‘Hysteria’ is believed to have originated from the Greek word, ‘*hystera/hysteron*’ meaning (uterus), based on an erroneous early belief that this disorder was only suffered by women.¹³⁸ It is a mental disorder that is characterized by several sensory, motor, and psychic abnormalities.¹³⁹

The oldest record of the symptoms of hysteria is found as early as 1900 BC in Kahun Papyrus in Egypt. It describes abnormal behavioural changes in women (e.g., diffuse myalgias, persistent fatigue, and vision problems) believed to be resulted from a displacement of the uterus, referred to as ‘a wandering uterus’, moving upward into the abdomen causing a crowding of the other organs, which is the reason for such disturbances.¹⁴⁰ The Kahun Papyrus recorded a prescription for healing the wandering uterus: “*Case 2 A woman is ill from her uterus wandering*”. As a remedy, the author recommended the use of fumigation: “*you should treat her by fumigation with whatever she smells as roast*”.¹⁴¹ The Ebers Papyrus also recorded seven prescriptions (784, 789, 790, 791, 792, 793 and 795) for healing the wandering uterus,¹⁴² of which prescription 789 is an example: “*pine saw-dust (t3ḥ.t), added to dregs, a tile of d3jw-cloth is smeared (gs)with it; you let her sit on it.*”¹⁴³

¹³⁸ AMIN 2019, 24.

¹³⁹ SANJAY 2022. Available at: <https://www.icliniq.com/articles/emotional-and-mental-health/hysteria> (accessed December 25, 2022).

¹⁴⁰ OKASHA & OKASHA 2000, 418; MORRIS & DONOHOE 2004, 40.

¹⁴¹ COLLIER & QUIRKE 2004, 58.

¹⁴² GHALIOUNGUI 1987, 201, 203.

¹⁴³ *Ibid.*, 201; WRESZINSKI 1913, 192.

In 1965, Ilza Veith had compiled a comprehensive study about this matter in her work 'Hysteria, The History of a disease'. She compared several ailments from the Kahun Papyrus and summarized the content stating that these disturbances were thought to result from uterus' starvation or from the uterus upward displacement, and therefore the physicians focused their efforts on nourishing the starving organ or bringing it back to its location, thus as a measure to push it away from the upper part of the body, they were fumigating the parts with valuable scented materials, or alternatively, substances with unpleasant tastes and smells were swallowed or inhaled.¹⁴⁴ She then added that as a final measure, a magical remedy was utilized that is based upon the worship of Thot: burning a wax ibis over charcoal and directing the fumes to the vulva, believing that the god's image had the power to entice back the wandering organ. The god Thot was particularly used as he was regarded as the author of all medical literature and acted as gods' physician and protector of ill people, thus combining a magico-religious element with the medical treatment.¹⁴⁵

Two professors from Ontario University have investigated this issue and found out that all the symptoms previously thought to result from the wandering of the uterus are in fact symptoms for a variety of illnesses such as childbirth fever causing wide-ranging complications in the body in addition to other local changes linked to the uterus (e.g., vulval changes and back pain). They also added that, during pregnancy, a type of oedema can occur causing a swelling in the leg or eyelids.

¹⁴⁴ VEITH 1965, 3.

¹⁴⁵ *Ibid.*, 5-6.

Eventually, they emphasized that papyri interpretations are naturalistic and may not have originally included a wandering uterus because ancient Egyptian physicians were highly perceptive.¹⁴⁶

As for the Greek tradition, Hippocrates (5th century BC) is credited with coining the term “*Hysteria*” first. He also held the view that the uterus’ movement is the cause of that,¹⁴⁷ ‘wandering uterus’; it was thought that due to its restlessness, the uterus ends up causing pains and discomfort in other parts of the body until it rests.¹⁴⁸ Bednarski quotes a passage from Hippocrates’ *Places in Man* saying that all women’s diseases were caused by the uterus when it moves from its normal place.¹⁴⁹ He also distinguished between compulsive movements of epilepsy resulting from brain disorders, and the hysteria movements of uterus in the body. He went further to describe an affected uterus as being inflicted by means of stagnant and toxic humors, which were never expelled from the uterus due to insufficient sexual activity. Hippocrates claims that since the female body is cold and wet, putrefaction of the humors is likely to occur, resulting in sickness, particularly in case it is deprived of the healthy benefits of sex and conception.¹⁵⁰

The Hippocratic treatment of hysteria followed a very similar approach to that of the ancient Egyptians recorded in their papyri and were both intended to attain the same goal. Two forms of fumigation were employed to entice the uterus into a downward location in conditions

¹⁴⁶ MERSKEY & POTTER 1989, 753.

¹⁴⁷ TASCA et al. 2012, 111.

¹⁴⁸ BEDNARSKI 2000, 12-13.

¹⁴⁹ *Ibid.*, 14 after Hippocrates *Places in Man*, XLVII, 347.

¹⁵⁰ TASCA et al. 2012, 111.

diagnosed as "suffocation of the womb": those containing malodorous substances to be inhaled and those with sweet-scented aromas to be applied below. Caraway-flavored wine was recommended in cases, in which the uterus had been pushing on the intestines. This was to be followed by a hot bath and then cooling drinks. In case it was thought that uterus dislocation resulted from amenorrhea, medicated pessaries made of wool or linen strips were placed into the vagina; such remedy was not advised for virgin females. It was believed that old unmarried women and widows, including those who had given birth, were especially susceptible to hysterical illnesses brought on by irregular menses; these women were advised to get married as the fastest way to recovery.¹⁵¹ Yet Hippocrates' medicine denied Asclepius's healing miracles; patients suffering from hysteria were sleeping in *asclepeia* and were cured upon awakening after dreaming of the god of medicine holding a serpent-entwined rod.¹⁵²

Both Roman medical authors, Celsus (1st century BC) and Aretaeus (2nd century AD), adopted the Hippocratic notion of the wandering womb into the abdomen causing various problems. According to Celsus, patients may occasionally be deprived of all senses in a manner similar to that of an epileptic seizure; however, the hysterical case is different, that is, there is a deep sleep rather than the turned eyes, convulsions, or the foam pouring from the mouth. On the other hand, Soranus (2nd century AD) and Galen (2nd century AD) denied the concept of the 'wandering uterus' even though they recognized that the womb was the source of the hysterical symptoms. The disease may present itself in many ways: extreme emotionality as well as other physical symptoms including "dizziness, paralyses, and respiratory

¹⁵¹ VEITH 1965, 13.

¹⁵² GÓMEZ 2022, 169-170.

distress”. There is also widely observed feeling of a ball in the throat that restricted breathing causing a sense of suffocation, which is referred to as “*globus hystericus*”.¹⁵³ Galen's protocols for healing hysteria included purges, using herbs such as hellebore, valerian, mint, laudanum, belladonna extract, as well as recommending marriage or avoiding stimuli that might arouse young ladies.¹⁵⁴

It should be mentioned that the treatments of hysteria witnessed a breakthrough under Soranus,¹⁵⁵ whose writings establish him as the greatest obstetrician and gynecologist of Classical times and who was said to have studied in Alexandria and then settled at Rome.¹⁵⁶ He denied some ideas and treatments presented through Hippocratic tradition¹⁵⁷ and displayed a new perspective on the discussion of hysteria.¹⁵⁸ He stated that the difficulties of childbearing are the root cause of women's disorders; avoiding sexual activity promotes recovery; and remaining virgin for life is ideal for women. He added that the body suffering from hysteria should be dealt with cautiously; exercise, massages, and hot baths are the most effective measures to avoid such women's disorders, whereas fumigations, cataplasms, and compressions are ineffective.¹⁵⁹

In Graeco-Roman Egypt, the Alexandrian medical school witnessed advances in anatomy. Herophilus the anatomist, who spent most of his life in Alexandria (3rd century BC), identified the ovaries and the Fallopian

¹⁵³ SCULL 2011, 14.

¹⁵⁴ TASCA et al. 2012, 111.

¹⁵⁵ *Ibid.*, 111.

¹⁵⁶ VEITH 1965, 25.

¹⁵⁷ GILMAN et al. 1993, 40.

¹⁵⁸ VEITH 1965, 28.

¹⁵⁹ TASCA et al. 2012, 111.

tubes and more significantly was the first to describe the ligaments, or membranes, that is firmly holding the womb in the abdomen; such finding would have refuted the belief that the womb is wandering throughout the body.¹⁶⁰ A medical papyrus from Egypt dating to the 3rd or 2nd century BC includes the case of hysterical suffocation and gives a recipe prescribing dried otters' kidneys to be served in aromatic wine. The mention of otters' kidneys indicates that the recipe is Greek in origin rather than Egyptian.¹⁶¹ Another papyrus dating between 260 and 230 BC is related to a “hysterical woman”, yet it is too fragmented to reconstruct the recipe, and even less readable papyrus dating to the early 1st century BC, but its reconstruction includes the terms *hysterikai* and *hysterikais*.¹⁶²

In addition to the traditional treatments, magical spells were used to treat hysteria, e.g., the spell PGM VII. 260-71¹⁶³ against the ascent of the uterus dating to the 3rd century AD. It consists of numbered verses that are randomly extracted from the Iliad and Odyssey and arranged in groups of six; it is a form of divination that is comparable to the *Predictions of Astrampsychos*.¹⁶⁴ In accordance with the spell's instructions, the woman should wear the charm, which is written on a tin tablet,¹⁶⁵ tying it on with seven-coloured threads:¹⁶⁶ it addresses the uterus recognizing its animalistic wild behaviour,¹⁶⁷ i.e., dog, asking it to calm down and to return to its place.¹⁶⁸

¹⁶⁰ GILMAN et al. 1993, 35-36.

¹⁶¹ ROBERTS 1938, 165-168, (no. 531).

¹⁶² GILMAN et al. 1993, 36.

¹⁶³ BETZ 1986, 123-124.

¹⁶⁴ ROWLANDSON 1998, 339 (no. 266).

¹⁶⁵ *Ibid.*, 340.

¹⁶⁶ BONNER 1950, 82.

¹⁶⁷ BJÖRKLUND 2016, 162.

¹⁶⁸ For the spell, see BETZ 1986, 123-124.

CONCLUSIONS

The substantial corpus of medical documents survived from ancient Egypt revealed that they pioneered medicine including mental diseases diagnosis and treatment. The Egyptians' concern for treating the mental diseases was much the same as the physical illnesses. The most prominent physicians of the Graeco-Roman world in antiquity (e.g., Hippocrates, Praxagoras, Herophilus, Soranus, Aretaeus, and Galen) took their share of medical study and/or practice in Egypt; most of their concepts on diseases and treatment approaches were based on the ancient Egyptian medical tradition. In the Graeco-Roman period, the Egyptians followed the same approaches, whether medical or magical, based on the Egyptian medical repertoire in keeping up with the important advances of the Classical world in that field. Their magical spells usually provide explicit instructions to be followed while reciting the formula. As regards depression, magical spells were used seeking demons' assistance through their supernatural abilities. They were also seeking the gods, praying and going to sleep temples/*sanatoria* practicing dream incubation hoping to be cured from their medical condition, particularly the psychological and mental problems. It is likely that they practiced measures like bloodletting, trepanation, and cauterization for epileptic cases, for which also certain remedies were prescribed as well as usage of magical spells. As for paraphilic disorders, the Egyptians relied on advice and instructions, whereas the Greeks issued certain laws to minimize such practices. For dementia, they used herbal substances as well as magical spells for memory. Finally, cases suffering from hysteria were treated with the use of fumigation, certain recipes, and magical spells against the ascent of the uterus.

REFERENCES

- ABDEL HAMEED, A. A., ABDALLA, A. O., & SOLIEMAN, N. M. (2020), The Presence of Gods and Goddess in People's Life in Greco-Roman Egypt. *Journal of the Faculty of Tourism and Hotels-University of Sadat City*, 4(1/2), pp. 37-56.
- ABOU-ALY, A. M. (1992). *The Medical Writing of Rufus of Ephesus*. London: Universty College London (United Kingdom).
- AHMAD, F., TABASSUM, N., & RASOOL, S. (2012). Medicinal Uses and Phytoconstituents of Paeonia Officinalis. *International Research Journal of Pharmacy* 3(4), pp. 85-87.
- AHMED, H. M. (2020). The Motivating Drives behind Dreams and Nightmares in Ancient Egypt According to Freud's Theory. *Bulletin of the Center Papyrological Studies* 37(2), pp. 527-545.
- AHONEN, M. (2014). *Mental Disorders in Ancient Philosophy. Studies in the History of Philosophy of Mind* 13. Cham: Springer.
- American Psychiatric Association. *Dementia*. Available at: <https://dictionary.apa.org/dementia> (Accessed on 18 November 2023).
- American Psychiatric Association. (1980). *Diagnostic and Statistical Manual of Mental Disorders* (3rd ed.). Washington D.C.
- American Psychiatric Association. *Epilepsy*. Available at: <https://dictionary.apa.org/epilepsy> (Accessed on 22 September 2022).
- AMIN, N. (2019). Overview of Hysteria; Introduction, Review, Causes, Signs And Symptoms, Complications And Management. *Journal of Neurological, Psychiatric and Mental Health Nursing* 1(1), pp. 23-26.
- BAGNALL, R. S., & CRIBIORE, R. (2015). *Women's Letters from ancient Egypt 300 BC- AD 800*. Michigan: University of Michigan press.
- BALIGH, R. (2014). Emotions and Deities in Ancient Egypt. *The Conference Book of the General Union of Arab Archeologists* 17(17), pp. 49-83.
- BALOYANNIS, S. J. (2013). Epilepsy: A Way from Herodotus to Hippocratis. *Epilepsy, Art and History* 28(2), p. 303; <https://doi.org/10.1016/j.yebeh.2012.04.003> (Accessed on 12 October 2022).
- BASHIR, B., & ABDARABO, A. (2020). Auditing of the phlebotomy system in medical laboratories in Port Sudan City, Sudan. *Eastern Mediterranean Health Journal* 26(7), pp. 839-845.
- BAYOUMY, T. F. (2022). Oracular Gods in Ancient Egypt. *Journal of Association of Arab Universities for Tourism and Hospitality (JAAUTH)* 22(2), pp. 1-19.

- BEDNARSKI, A. (2000). Hysteria Revisited, Women's Public Health in Ancient Egypt. In A. McDonald, & C. Riggs (Eds.). *Current Research in Egyptology 2000* (pp. 11-18). BAR International Series 909: The Basingstoke Press.
- BERCHTOLD, N. C., & COTMAN, C. W. (1998). Evolution in the Conceptualization of Dementia and Alzheimer's Disease: Greco-Roman period to the 1960s. *Neurobiol. Aging* 19(3), pp.173-189.
- BERNARD, J. E. R. (2018). Depression: a review of its definition. *MOJ Addiction Medicine & Therapy* 5(1), pp. 6-7.
- BETZ, H. D. (Ed.). (1986). *The Greek Magical Papyri in Translation, Including the Demotic Spells* I. Chicago.
- BJÖRKLUND, H. (2016). Classical Traces of Metamorphosis in the Byzantine Hysteria Formula. *Dumbarton Oaks Papers* 70, pp. 151–66.
- BONNER, C. (1950). *Studies in Magical Amulets. Chiefly Graeco-Egyptian*. Ann Arbor.
- BORGHOUTS, J. F. (1978). *Ancient Egyptian Magical Texts*. Leiden.
- BOSTOCK, J., & RILEY, H. T. (Trans.). (1856). *The Natural History of Pliny IV*. London.
- BOU KHALIL, R., & RICHA, S. (2014). When affective disorders were considered to emanate from the heart: the Ebres Papyrus. *American Journal of Psychiatry* 171, p. 275.
- BOULOS, L. (1980). *Medicinal Plants of North Africa*. Cairo.
- BOURIN, M. (2020). History of Depression through the Ages. *Archives of Depression and Anxiety* 6, pp. 010-018.
- BRILLATZ, T., JACMIN, M., VOUGOGIANNOPOULOU, K., PETRAKIS, E. A., KALPOUTZAKIS, E., HOURIET, J., PELLISSIER, L., RUTZ, A., MARCOURT, L., QUEIROZ, E. F., CRAWFORD, A. D., SKALTSOUNIS, A.-L., & WOLFENDER, J.-L. (2020). Antiseizure Potential of the Ancient Greek Medicinal Plant *Helleborus odoratus* subsp. *cyclophyllus* and Identification of Its Main Active Principles. *Journal of Ethnopharmacology* 259, pp. 1-14; <https://doi.org/10.1016/j.jep.2020.112954> (Accessed on 24 September 2022).
- BROWN, A., BARKER, E. D., & RAHMAN, Q. (2023). Psychological and Developmental Correlates of Paraphilic and Normophilic Sexual Interests. *Sexual Abuse: A Journal of Research and Treatment* 35(4), pp. 428-464.
- Bury, R. G. (Trans.). (1926). PLATO: *Laws*. Cambridge: Harvard University.
- CARPENTER, S., RIGAUD, M., BRAILE, M., PRIEST, T. J., PEREZ, L., & FERGUSON, J. B. (1998). *An Interlinear Transliteration and English Translation of Portions of The Ebres Papyrus. Possibly Having to do with Diabetes Mellitus*. Bard College: Annandale-on-Hudson NY, USA.

- CHANTRAIN, G. (2023). Sadness, Anxiety and Other Broken Hearts: The Expression of Negative Emotions in Ancient Egyptian. In Sami Uljas (Ed.), *Proceedings of the Crossroads VI: Between Egyptian Linguistics and Philology*.
- CHOKROVERTY, S., & BILLIARD, M. (Eds.). (2015). *Sleep Medicine: A Comprehensive Guide to its Development, Clinical Milestones, and Advances in Treatment*. Springer.
- CLARYSSE, W. (2017). Emotions in Greek Private Papyrus Letters. *Ancient Society* 47, pp. 63-86.
- COLLADO-VÁZQUEZ, S., & CARRILLO, J. M. (2014). La trepanación craneal en Sinuhé, el Egipcio. *Neurología* 29, pp. 433-440.
- COLLIER, M., & QUIRKE, S. (2004). *The UCL Lahun Papyri: Religious, Literary, Legal, Mathematical and Medical*. BAR.
- COLP, Jr. R. (1988). Review article of “Melancholia and Depression: From Hippocratic Times to Modern Times by Stanley W. Jackson”. *Journal of the History of Biology*, Spring 21(1), pp. 617-618.
- DANIEL, R. W. (2016). P.Mich. VI 423-424 without Magic. *Zeitschrift für Papyrologie und Epigraphik* 200, pp. 389-397.
- DAVID, R. (2003). *Handbook to Life in Ancient Egypt*. Manchester.
- DIELEMAN, J. (2019). The Greco-Egyptian Magical Papyri. In D. Frankfurter (Ed.), *Guide to the Study of Ancient Magic*. Leiden; Boston: Brill, pp. 283-321.
- EICKE, S. (2020). History of Horror: A Diachronic Overview of Fear(s) in Ancient Egyptian Texts. In Sh.-W. Hsu, & J. L. Raduà (Eds.), *The expression of Emotions in Ancient Egypt and Mesopotamia* (pp. 25-51). Culture and History of the Ancient Near East 116. Brill.
- ESTES, J. W. (1993). *The Medical Skills of Ancient Egypt*. USA: Science History Publications.
- FAULKNER, R. O. (1964). *A Concise Dictionary Middle Egypt*. Oxford.
- FODJO, J. N. S. (2020). Definition, Classification, and Burden of Epilepsy. In S. Misciagna (Ed.), *Epilepsy – Update on Classification, Etiologies, Instrumental Diagnosis and Treatment*. IntechOpen. Available at: <https://www.intechopen.com/chapters/73156> (Accessed on 30 September 2022).
- GENDY, I. A. (1990). *Economic Aspects of Houses and Housing in Roman Egypt*. PhD Thesis, University College of London, London.
- GERIG, B. L. (2012). Homosexuality in Ancient Egypt. In B. L. GERIG, *Jonathan and David. A Love Story. A Survey of Commentary Interpretation, Textual Evidence, and Historical Background* (pp. 33-43); <https://epistle.us/hbarticles/jondavealovestory.pdf>. Available at:

- <https://epistle.us/hbarticles/ancientegypt1.html> (Accessed on 28 November 2022).
- GHALIOUNGUI, P. (1965). *Magic and Medical Science in Ancient Egypt*. New York.
 - GHALIOUNGUI, P. (1987). *The Ebers Papyrus: A New English Translation, Commentaries and Glossaries*. Academy of Scientific Research and Technology.
 - GILMAN, S. L., KING, H., POTTER, R., ROUSSEAU, G. S., & SHOWALTER, E. (1993). *Hysteria Beyond Freud*. University of California Press.
 - GLAS, G. (2003). A conceptual history of anxiety and depression. In J. A. den BOER, & A. SITSEN (Eds.), *Handbook on Anxiety and Depression* (pp. 1-48). Marcel Dekker: New York/Basel/Hong Kong (2nd ed.).
 - GOLDING, W. R. J. (2020). *Brooklyn Papyrus (47.218.48 and 47.218.85) and its Snakebite Treatments*. PhD Thesis, University of South Africa.
 - GÓMEZ, M. A. (2022). From Delphi to the Prefrontal Cortex: A Historical Journey through the Theories of Hysteria. *Neurosciences and History* 10(4), pp. 167-177.
 - HAMMAD, M. B. (2018). Demonic Beings in Ancient Egypt. *International Academic Journal of the Faculty of Tourism and Hotel Management* 4(1), pp.1-27.
 - HERODOTUS. *The Histories* II, 89. 1-2. A. D. Godley (Ed.). (1920). Cambridge: Harvard University Press. Available at:
<https://www.perseus.tufts.edu/hopper/text?doc=urn:cts:greekLit:tlg0016.tlg001.perseus-eng1:2.89.1;>
<https://www.perseus.tufts.edu/hopper/text?doc=urn:cts:greekLit:tlg0016.tlg001.perseus-eng1:2.89.2> (Accessed on 3 December 2022).
 - HIPPOCRATES, *Places in Man*, XLVII.
 - HSU, SH.-W. (2020). I Wish Could Die: Depression in Ancient Egypt. In Sh.-W. Hsu, & J. L. Raduà (Eds.), *The Expression of Emotions in Ancient Egypt and Mesopotamia* (pp. 52-87). Culture and history of the ancient Near East 116. Brill.
 - SANJAY, M. N. (2022). Hysteria – Types, Causes, Diagnosis, and Treatment. Available at: <https://www.icliniq.com/articles/emotional-and-mental-health/hysteria> (Accessed on 25 December 2022).
 - JACKSON, S. W. (2008). A History of Melancholia and Depression. In E. R. Wallace, & J. Gach (Eds.), *History of Psychiatry and Medical Psychology: with an Epilogue on Psychiatry and the Mind-Body Relation* (pp. 443-460). New York: Springer.
 - JAEGER, W. (1940). Diocles of Carystus: A New Pupil of Aristotle. *The Philosophical Review* 49(4), pp. 393-414.

- JAMES, G.G. M. (2009). *Stolen Legacy: Greek Philosophy is Stolen Egyptian Philosophy*. *The Journal of Pan African Studies*. Retrieved from: <https://www.jpanafrican.org/ebooks.htm> (Accessed on 10 September 2022).
- JOUANNA, J. (2012). Egyptian Medicine and Greek Medicine. In Ph. van der Eijk (Ed.), *Greek Medicine from Hippocrates to Galen* (pp. 3-20). *Studies in Ancient Medicine* 40.
- JULIUSSEN-STEVENSON, H. (2008). *Performing Christian Female Identity in Roman Alexandria*. M.A. Thesis, Faculty of the Graduate School of the University of Maryland.
- KACULINI, C. M., TATE-LOONEY, A. J., & SEIFI, A. (2021). The History of Epilepsy: From Ancient Mystery to Modern Misconception. *Cureus* 13(3). doi:10.7759/cureus.13953.
- KAMAL, H. (1998). *Al-Ṭeb Al-Masrī Al-Qadīm*, Third Edition, Cairo.
- MAGALHÃES, J. M. (2020). *Para-philiias Transgressive sex in Ancient Greece*. PhD diss., University of Roehampton.
- MAGIE, D. (1953). Egyptian Deities in Asia Minor in Inscriptions and on Coins. *American Journal of Archaeology* 57(3), pp. 163-187.
- MAGIORKINIS, E., DIAMANTIS, A., & SIDIROPOULOU, K. (2011). Hallmarks in the History of Epilepsy: From Antiquity till the Twentieth Century, *INTECH* Open Access Publisher, pp. 131-156. Available at: <https://www.intechopen.com/chapters/21744> (Accessed on 2 October 2022).
- MANNICHE, L. (1977). Some aspects of ancient Egyptian sexual life. *Acta Orientalia* 38, pp. 11-23; <https://doi.org/10.5617/ao.5136> (Accessed on 26 November 2022).
- MANNICHE, L. (1989). *An Ancient Egyptian Herbal*. University of Texas Press.
- MCDONALD, A. (2020). Emotions. In A. Austin, & W. Wendrich (Eds.), *UCLA encyclopedia of Egyptology*. Los Angeles. Available at: <https://escholarship.org/uc/item/1t5224vj>.
- MCMANUS, M., HARGREAVES, P., & LEE, R., ALISON, L. J. (2013). Paraphiliias: Definition, Diagnosis and Treatment”, *F1000Prime Reports* 5(36), pp. 1-6.
- MERSKEY, H., & POTTER, P. (1989). *The Womb Lay Still in Ancient Egypt*. *The British Journal of Psychiatry* 154(6), pp. 751-753.
- MONTSERRAT, D. (1996). *Sex and Society in Graeco-Roman Egypt*. Routledge.
- MOOS, W. H., FALLER, D. V., GLAVAS, I. P., KANARA, I., KODUKULA, K., PERNOKAS, J., PERNOKAS, M., PINKERT, C. A., POWERS, W. R., SAMPANI,

- K., STELIOU, K., & VAVVAS, D. G. (2023). Epilepsy: Mitochondrial connections to the 'Sacred' disease. *Mitochondrion* 72, pp. 84-101.
- MORKT, R., TYLDESLEY, J. (2016). *Mummies, Magic and Medicine in Ancient Egypt*. Manchester.
- MORRIS, J. G., & DONOHOE, M. T. (2004). The History of Hysteria. *The Pharos of Alpha Omega Alpha-Honor Medical Society* 67(2), pp. 40-43. Available at: https://www.researchgate.net/publication/8494508_The_history_of_hysteria (Accessed on 22 December 2022).
- MOSER, C., & KLEINPLATZ, P. J. (2020). Conceptualization, History, and Future of the Paraphilias. *Annual Review of Clinical Psychology* 16, pp. 379-399.
- NIKOLOVA, P., STOYANOV, Z., DONCHEVA, D., & TRENDAFILOVA, S. (2018). Wine as a Medicine in Ancient Times. *Scripta Scientifica Pharmaceutica*, 5(2), pp. 14-21.
- NUNN, J. F. (1996). *Ancient Egyptian Medicine*. London: British Museum Press.
- NUNN, J. F. (2002). *Ancient Egyptian Medicine*. Norman, OK: University of Oklahoma Press.
- O'DELL, E. J. (2008). *Excavating the Emotional Landscape of Ancient Egyptian Literature*. Brown University.
- OKASHA, A., & OKASHA, T. (2000). Notes on the Mental Disorders in Pharaonic Egypt. *Hist.Psychiatry* 11(44), pp. 413-424.
- OLIVIERI, M. F., MARZARI, F., KESEL, A. J., BONALUME, L., & SAETTINI, F. (2017). Pharmacology and Psychiatry at the Origins of Greek Medicine: The Myth of Melampus and the Madness of the Proetides. *Journal of the History of the Neurosciences* 26(2), pp. 193-215.
- OMRAN, W. (2019). Transporting the Deceased by the Wheeled Cart in the Greco-Roman Tombs. *Journal of Association of Arab Universities for Tourism and Hospitality* 17(2), pp. 32-49.
- PAPA VRAMIDOU, N., THOMAIDIS, V., & FISKA, A. (2011). The Ancient Surgical Bloodletting Method of Arteriotomy. *Journal of Vascular Surgery* 54 (6), pp. 1842-1844; doi:10.1016/j.jvs.2011.05.100.
- PAPOTI, V. T., TOTOMIS, N., ATMATZIDOU, A., ZINOVIADOU, K., ANDROULAKI, A., PETRIDIS, D., & RITZOULIS, CHR. (2019). Phytochemical Content of *Melissa officinalis* L. Herbal Preparations Appropriate for Consumption. *Processes* 7(2), 88, pp. 1-16; <https://doi.org/10.3390/pr7020088> (Accessed on 5 October 2022).
- PARAPIA, L. A. (2008). History of Bloodletting by Phlebotomy. *British Journal of Haematology* 143(4), pp.12-14; doi:10.1111/j.1365-2141.2008.07361.x.

- PLATO. *Laws*. Available at:
<https://www.perseus.tufts.edu/hopper/text?doc=urn:cts:greekLit:tlg0059.tlg034.perseus-eng1:8.836> (Accessed on 6 December 2022).
- Pliny the Elder, *The Natural History* 26.6:
<http://www.perseus.tufts.edu/hopper/text?doc=Plin.+Nat.+26.6&redirect=true> (Accessed on 2 November 2022).
- RICE, M. (1999). *Who's Who in Ancient Egypt*. London and New York: Routledge.
- ROBERTS, C. H. (Ed.). (1938). *Catalogue of the Greek and Latin Papyri III. Theological and Literary Texts (Nos. 457-551)*. Manchester.
- ROSSO, A. M. (2021). The Egyptian Theory of Wxdw and the Ancient Greek MedicineX. *Journal of Research in Environmental Science and Toxicology* 10(5), pp. 103-112.
- ROWLANDSON, J. (1998). *Women and Society in Greek and Roman Egypt*. Cambridge: Cambridge University Press.
- RUCARELLI, R. (2010). The Guardian Demons of the Book of the Dead. *British Museum Studies in Ancient Egypt and Sudan* 15, pp. 86-102.
- SAHER, S. Kh., ZULKIFLE, M., AHMAD, W., & KHAN, T. N. (2021). The Concept of Black Bile and Its Importance in Maintenance of Health. *International Journal of Health Sciences and Research* 11(4), pp. 106-113.
- SAPSFORD, T. (2015). The Wages of Effeminacy?: *Kinaidoi* in Greek Documents from Egypt. *EuGeStA: Journal on Gender Studies in Antiquity* 5, pp. 103-123.
- SCULL, A. (2011). *Hysteria: The Disturbing History*. Oxford University Press.
- SERAGELDIN, I. (2013). Ancient Alexandria and the Dawn of Medical Science. *Global Cardiology Science & Practice* 4, pp. 395-404; <http://dx.doi.org/10.5339/gcsp.2013.47> (Accessed on 18 November 2022).
- SERRANO, J. M. (1999). Origin and Basic Meaning of the Word ḥnmmt (the so-called "Sun-Folk"). *Studien zur Altägyptischen Kultur* 27, pp. 353-368.
- SIMPSON, W. K. (Ed.). (2003). *Literature of Ancient Egypt. An Anthology of Stories, Instructions, Stelae, Autobiographies, and Poetry*. Yale University Press: New Haven and London.
- SULLIVAN, R. (1998). Proto-Surgery in Ancient Egypt. *Acta Medica Kralove* 41, pp.109-120.
- SWANEPOEL, M. (2009). The Development of the Interface between Law, Medicine and Psychiatry: Medico-Legal Perspectives in History. *Potchefstroom Electronic Law Journal* 12(4), pp. 124-170.
- SZPAKOWSKA, K. (2009). Demons in Ancient Egypt. *Religion Compass* 3(5), pp.799-805.

- SZPAKOWSKA, K. (2013). Dream books, Pharaonic Egypt. In R. S. Bagnall, K. Brodersen, C. B. Champion, A. Erskine, & S. R. Huebner (Eds.), *The Encyclopedia of Ancient History*.
- TASCIA, C., RAPETTI, M., CARTA, M. G., FADDA, B. (2012). Women and Hysteria in the History of Mental Health. *Clinical Practice and Epidemiology in Mental Health* 8(1), pp. 110-119.
- TEKINER, H. (2015). Aretaeus of Cappadocia and His Treatises on Diseases. *Turkish Neurosurgery* 25(3), pp. 508-512.
- THOMAS, D. P. (2014). The Demise of Bloodletting. *The Journal of the Royal College of Physicians of Edinburgh* 44, pp. 72-77; <http://dx.doi.org/10.4997/JRCPE.2014.117> (Accessed on 18 November 2022).
- TSOUCALAS, G., & SGANTZOS, M. (2016). Aretaeus of Cappadocia (1st/2nd-2nd/3rd century AD), Descriptions on Cancer. *Research on History of Medicine* 5(3), pp. 1326-1331.
- TULLO, E. (2010). Trepanation and Roman Medicine: A Comparison of Osteoarcheological Remains, Material Culture and Written Texts. *The Journal of the Royal College of Physicians of Edinburgh* 40(2), pp. 165-171.
- TZEFERAKOS, G., & DOUZENIS, A. (2014). Sacred Psychiatry in Ancient Greece. *Annals of General Psychiatry* 13, pp. 1-9.
- VAN DIJK, J. (1994). The Nocturnal Wanderings of King Neferkare. In C. M. Berger, G. Clerc, & N.-Chr. Grimal (Eds.), *Hommages à Jean Leclant*, 4, Varia (pp. 387-393). *Bibliothèque d'Étude* 106/4. Cairo: Institut Français D'Archéologie Orientale.
- VEITH, I. (1965). *Hysteria, The History of a Disease*. Chicago: Chicago University Press.
- WILSON, W. (Trans.). (1867). *The Writings of Clemet of Alexandria*. Edinburgh.
- WRESZINSKI, W. (1913). *Der Papyrus Ebers, Umschrift, Übersetzung und Kommentar*. Leipzig.
- ZHANG, SH. (2021). How Alexandria Reflects Aristotle's Philosophy of Eudaimonia. In *Advances in Social Science, Education and Humanities Research* 615. Proceedings of the 2021 4th International Conference on Humanities Education and Social Sciences (ICHESS 2021), pp. 233-237.
- VEENHOVEN, R. (2008). Healthy Happiness: Effects of Happiness on Physical Health and the Consequences for Preventive Health Care. *Journal of Happiness Studies* 9, pp. 449-469.