

FORUM: SCIENCE IN TRANSLATION

Medicine and Arabic literary production in the Ottoman Empire during the nineteenth century

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Abstract

The selection of nineteenth-century Arabic texts on medical education, medicine and health demonstrates the significant link between the revival of the Arabic language and literary culture of the nineteenth century, known as the *nahda*, and the introduction of medical education to the Ottoman Empire. These include doctor Ibrahim al-Najjar's autobiographical account of his studies in Cairo (1855), an article by doctor Amin Abi Khatir advising on the health and care of infants (1877), questions and answers in the major popular Arabic journals *al-Hilal* and *al-Muqtataf* (1877–1901) and an article about a new tuberculosis treatment by doctor Anisa Sayba'a (1903). Taken together they contribute to our understanding of the bottom-up production, reproduction and reception of global scientific knowledge, as well as to a social and intellectual history of science. We argue that the engagement with science during the *nahda* was a multi-vocal and dialogical process, in which doctors and patients, journal editors and their readers, negotiated the implications of scientific knowledge for their own lives and their own society. The texts of the original documents and their translations can be found in the supplementary material tab at <https://doi.org/10.1017/S0007087422000413>.

This selection of nineteenth-century Arabic texts on medical education, medicine and health demonstrates the significant link between the revival of the Arabic language and literary culture of the nineteenth century, known as the *nahda*, and the introduction of medical education to the Ottoman Empire. Contemporaries used the term 'medical *nahda*' to describe the professionalization of medicine and the professional and scientific revival that followed. Like other Arab literati of the time, they equated this revival to the heydays of Islamic, Arab and Egyptian medicine – going back to the pharaohs and to the days of the well-known tenth-century Muslim physician Ibn Sina (Avicenna), considered to be the zenith of Islamic science.¹

During the nineteenth century, the relationship between medicine and the *nahda* took shape within two major sites: medical education and printed medical discourse. This encounter contributed to the popularization of medical knowledge, to the formation of the middle-class subject and to the dissemination of new techniques for self-discipline

¹ 'Nahdat al-Tibb fi Misr', *al-Muqtataf* (1888) 12, pp. 735–6.

and control. Two schools were founded in 1827: the Egyptian medical school in Cairo, known as Qasr al-'Aini, established by Egypt's governor, Muhammad 'Ali Pasha,² and the Imperial Military School of Medicine in Istanbul, established by the Ottoman Sultan Mahmud II.³ A third school was the faculty of medicine at the Syrian Protestant College (SPC), founded in Beirut by American missionaries in 1867, and the fourth was the medical faculty of St Joseph University in Beirut, established in 1883 by the French Jesuit Mission.⁴

Qasr al-'Aini and the SPC School of Medicine were closely connected to the Arabic literary production of the *nahda* and the introduction of print culture to the Middle East. Medical textbooks translated and printed from the mid-1820s onwards for Qasr al-'Aini students were among the earliest Arabic books printed in Egypt.⁵ The SPC, for its part, was central to the foundation of the most important scientific journals of the day: *al-Muqtataf*, established in 1876 by two former students and junior faculty at the SPC, Ya'qub Sarruf (1852–1927) and Faris Nimr (1856–1952); and *al-Hilal*, established in 1892 in Cairo by Jurji Zaydan (1861–1914), a former SPC medical student.⁶

Historians of the Middle East use the term *nahda* to speak of a period of increasing literary production in Arabic, including that of the Arabic press.⁷ Its centres were mainly Beirut and Cairo, where several early printing presses were located, but these created a growing community of writers and readers from smaller locations within the region, as well as of Arabic readers overseas. Missionary, private and governmental schools expanded the availability of education and thus increased the numbers of Arabic readers from a few thousand at the beginning of the nineteenth century to more than a million by the First World War.⁸

Arabic literary and scientific journals first appeared in the 1850s. They introduced translated and mediated scientific knowledge, as well as original scientific, literary and conceptual discussions. Readers and writers were predominantly middle-class educated men who envisioned a new, modern horizon for their society. This vision included

² Naguib bey Mahfouz, *The History of Medical Education in Egypt*, Cairo: Government Press, 1935, pp. 29–41; LaVerne Kuhnke, *Lives at Risk: Public Health in Nineteenth-century Egypt*, Berkeley: University of California Press, 1990, pp. 33–48; Amira el-Azhary Sonbol, *The Creation of a Medical Profession in Egypt, 1800–1922*, Syracuse, NY: Syracuse University Press, 1991, pp. 52–79.

³ Ayşegül Demirhan Erdemir, 'The importance of Haydarpāshā Medical Faculty (the first Turkish medical faculty) (1903–1933) from the point of view of Turkish medical history and some original results', *Hamdard Islamicus* (1997) 20, pp. 61–75; Erdemir, 'The first Turkish medical faculty: an important chapter of Turkish medical history', *Studies in History of Medicine and Science* (1996) 14, pp. 41–66.

⁴ Chantal Verdeil, 'Naissance d'une nouvelle élite ottomane: Formation et trajectoires des médecins diplômés de Beyrouth à la fin du XIXe siècle', *Revue des mondes musulman et de la Méditerranée* (2008) 121–2, pp. 217–37.

⁵ Abu al-Futuh Ahmad Radwan, *Ta'rikh Matba'at Bulaq wa-Lamahah fi Ta'rikh al-Tiba'ah fi Buldan al-Sharq al-Awsat*, Cairo: al-Matba'ah al-Amiriyah, 1953, pp. 446–79; 'Ali Mubarak, *al-Khitat al-Tawfiqiyyah al-Jadidah li-Masr al-Qahirah wa-Mudumiha wa-Biladiha al-Qadimah al-Shahirah*, Cairo: al-Matba'ah al-Kubra al-Amiriyah, 1888, vol. 8, pp. 23–4.

⁶ Nadia Farag, 'The Lewis affair and the fortunes of Al-Muqtataf', *Middle Eastern Studies* (1972) 8, pp. 73–83; Ami Ayalon, *The Press in the Arab Middle East: A History*, Oxford: Oxford University Press, 1995, pp. 53–4; Marwa Elshakry, *Reading Darwin in Arabic, 1860–1950*, Chicago: The University of Chicago Press, 2014, pp. 60–3, 78–9.

⁷ For recent scholarship on the *nahda* see, for example, Jens Hanssen and Max Weiss (eds.), *Arabic Thought beyond the Liberal Age: Towards an Intellectual History of the Nahda*, Cambridge: Cambridge University Press, 2016; Peter Hill, *Utopia and Civilisation in the Arab Nahda*, Cambridge: Cambridge University Press, 2020.

⁸ Ami Ayalon, *The Arabic Print Revolution: Cultural Production and Mass Readership*, Cambridge: Cambridge University Press, 2016, pp. 159–63; Susanna Ferguson, "'A fever for an education': pedagogical thought and social transformation in Beirut and Mount Lebanon, 1861–1914', *Arab Studies Journal* (2018) 26, pp. 58–83; Julia Hauser, Christine B. Lindner and Esther Möller (eds.), *Entangled Education: Foreign and Local Schools in Ottoman Syria and Mandate Lebanon (19–20th Centuries)*, Würzburg: Ergon, 2016; Hoda A. Yousef, *Composing Egypt: Reading, Writing, and the Emergence of a Modern Nation, 1870–1930*, Stanford, CA: Stanford University Press, 2016.

both the self-improvement of the educated young man and a cultural mission to improve those who kept society from modernizing – peasants and women. Alongside these men, by the late nineteenth century, readership was marked by the increasing presence of women and youth. The press, in turn, was attentive to their voices and started catering to their tastes.⁹ As our examples demonstrate, growing literacy enabled the acquisition of knowledge through solitary reading. The ability of young men (and, to a lesser extent, women) to acquire knowledge in solitude explains the discussion of sexuality – made possible by young individuals' reading without parental supervision or mediation, which enabled some of these to send to the press very private confessions of their most intimate conduct.

Rather than a tool for conveying information, literary and scientific journals became dialogical media and hubs for an Arabic-writing literary community. Writers responded to each other and debated various themes, such as women's rights, the structure of government, and evolution. Question-and-answer columns and letters to the editor created forums for a lively exchange between readers. The editors of *al-Hilal* and *al-Muqtataf* saw it as their mission to educate their reading public into what they perceived as proper modernity, including 'correct' child rearing and the cultivation of self and body.¹⁰ As our examples show, readers saw the journals as capable of providing scientific answers to a wide range of questions.

Nahdawi writing on medicine grew out of a nineteenth-century belief in the emancipatory and progressive power of science and its ability to provide new answers to questions that had troubled humanity for generations. Medicine was developing in huge strides. Medical discoveries, for example in bacteriology, radiology and parasitology, led doctors to believe that they were capable of improving the health not only of their patients but of Arab society as a whole. Although late nineteenth-century medicine could offer only better tools for prevention and diagnosis, not cure, the assumption was that disease eradication was only a matter of time.¹¹

Doctors and journal editors who wrote about medicine also defined themselves in relation to their 'others' – apprentice-trained lay medical practitioners (midwives and 'charlatans'), who treated most patients, even in the late nineteenth century, and European or westernized doctors, who were detached from and lacked understanding of local society. This distinction corresponded with *nahdawi* men's self-perception as abandoning the old ways, without losing themselves in another culture.¹²

In what follows, we briefly introduce the excerpts we have translated on medicine, health and the human body written during this period. Our examples range from the 1850s to the early 1900s and introduce different genres: an autobiography, essays on medicine and health, and samples of questions to the editors of two of the scientific journals mentioned above, *al-Muqtataf* and *al-Hilal*. Our introduction will place the different

⁹ Ayalon, op. cit. (8), pp. 164–8; Yousef, op. cit. (8), pp. 25–48.

¹⁰ Glaß Dagmar, 'Popularizing sciences through Arabic journals in the late 19th century: how al-Muqtataf transformed Western patterns', in Joachim Heidrich (ed.), *Changing Identities: The Transformation of Asian and African Societies under Colonialism*, Berlin: Klaus Schwarz Verlag, 1994, pp. 323–64.

¹¹ For a discussion of the specific promise of Darwinism see Elshakry, op. cit. (6). On the changing role of Arab doctors in particular and their cultural capital see Philippe Bourmaud, 'Cultiver sa réputation: L'image des médecins au Proche-Orient à l'ère des réformes ottomanes (XIXe–début XXe siècle)', *Tempora: Annales d'histoire et d'archéologie* (2007) 18, pp. 197–213; Philippe Bourmaud, 'Les médecins du Bilād Al-šām et les articles médicaux à l'époque des premières facultés de médecine (années 1870–1914): Développement d'une pratique d'écriture et constitution d'un discours professionnel', *Bulletin d'études orientales* (2004) 55, pp. 225–50.

¹² Such distinctions can also be traced to the popular culture of the time. See in particular Ya'qub Sanu', *al-'Alil*, Windsor: Hindawi, 2018; originally published 1871/2; Muhammad al-Muwailihi, *Hadith 'Isa bin Hisham*, Cairo: Matba'at Misr, 1935, originally published serially in 1898–1903.

texts in their historical context by looking at the local developments that produced them, as well as within the global nexus between science, society and culture.

Ibrahim al-Najjar: autobiographical account of a student's experience

Ibrahim al-Najjar's *Kitab Misbah al-Sari wa-Nuzhat al-Qari* (The Lamp of the Night Traveller and Resting Spot for the Visitor) is an account of Egyptian and Ottoman history, dotted with autobiographical excerpts – his studies in Cairo (see the translation in the supplementary materials) and his adventures in Anatolia. Al-Najjar (d. 1862) was born in Deir al-Qamar (Mt Lebanon) in 1822, studied at Qasr al-'Aini from 1837 to 1842, and worked in Zahle following his return. Upon graduation, and instead of returning home directly from Cairo, al-Najjar travelled to Izmir, where he learned that his benefactor, Amir Bashir al-Shihab, who had dispatched him and a handful of other Syrian students to study in Egypt, had arrived in Istanbul. He decided to travel there to meet him. On his way to the city, al-Najjar stopped by a town and was called to see a military officer suffering from gallstones. When he was able to cure him, the local doctor urged him to be tested by an examination board at the Imperial Medical School in Istanbul. Impressed by his knowledge, they invited him to study medicine further there – which al-Najjar undertook for the following four years. At the time of his writing, he was chief medical officer of the Ottoman Army stationed in Beirut.¹³

Al-Najjar's account of his studies is unique. Most of what we know about Qasr al-'Aini is a top-down history of the school's administration, and particularly the accounts of Antoine Barthélemy Clot (1793–1868), the French surgeon whom Muhammad 'Ali hired to reform his military medical services and who was instrumental in the foundation of the medical school.¹⁴ Al-Najjar's is one of the only extant local narratives that provides a student experience of medical education at the school.¹⁵ One interesting topic he touches upon is dissection at the medical school. Following Clot Bey's memoirs, historians often relay the story of the introduction of dissection as a heroic battle between the enlightened European doctor and the superstitious Eastern students.¹⁶ Al-Najjar's account demonstrates how a student was able to convince himself to overcome his initial aversion to dissection and renders the student, rather than the French instructor, the main protagonist of the introduction of dissections. Below, we show how later authors internalized a similar narrative of self-control – the coming of age of a young man had to pass through a recognition of the weakness of the body and the authority of science.

Al-Najjar is also unique because the vast majority of Qasr al-'Aini students were Egyptian. Initially, these students were recruited from families of modest means and many of them studied at al-Azhar Islamic university before joining the school.¹⁷ Ibrahim al-Najjar was a member of the first cohort of students from Greater Syria. Another group was dispatched in 1863. We do not know how many non-Egyptians studied in Qasr al-'Aini over the years.¹⁸ When the schools of medicine opened in Beirut, fewer students came to Egypt. In the 1880s, following the British occupation of Egypt, a British administration took over the school, reduced the level of instruction, reduced

¹³ Ibrahim al-Najjar, *Kitab Misbah al-Sari wa-Nuzhat al-Qari* (The Lamp of the Night Traveller and Resting Spot for the Visitor), Beirut: [al-Matba'ah al-Sharqiyyah], 1272h (1855), pp. 40–6.

¹⁴ Antoine Barthélemy Clot-Bey, *Aperçu général sur l'Égypte*, Paris: Fortin, Masson, 1840.

¹⁵ Others can be traced in Mubarak, op. cit. (5), vol. 9, pp. 40–3, vol. 14, pp. 126–8; and Shakir al-Khuri, *Majma' al-Massarraf*, Beirut: Matba'at al-Ijtihad, 1908.

¹⁶ For a critique of this historiography see Khaled Fahmy, *In Quest of Justice: Islamic Law and Forensic Medicine in Modern Egypt*, Oakland: University of California Press, 2018, pp. 4–6, 70, 74, 75–9.

¹⁷ Sonbol, op. cit. (2), pp. 54–5.

¹⁸ Mahmud Fawzi al-Minawi, *Hukama' Qasr al-'Aini*, Cairo: Dar Nahdat Misr, 1999, p. 23.

cohorts and charged tuition. Subsequently, the direction of education migration shifted, rendering the SPC a hub for Egyptian medical students.¹⁹

Al-Najjar's educational path reflects the regional and transnational scope of medical education in the region at the time. It also reflects continuities in pharmaceutical approaches, combining Galenic pharmacology with Lavoisierian chemistry.²⁰ In the early years of Qasr al-'Aini, Egyptian students spent part of their educational career in Europe, and educational missions to France and other European countries continued throughout the nineteenth century.²¹

Scientific motherhood

From the mid-nineteenth century, Arab intellectuals advocated for girls' education in order to improve women's competence as caretakers.²² As Beth Baron pointed out, medieval Islamic literature that dealt with child rearing addressed the father as responsible for the child's well-being. Books and articles published on child rearing in the late nineteenth century, by contrast, targeted a new audience of reading women and advocated new understandings of childhood and the centrality of mothers to early child development. These also reflected a medicalization of child rearing – the notion that evidence-based medicine could improve their care, and that the doctor, rather than the lay practitioner, is the person to whom to turn when the child is sick.²³

Historians of childhood in other parts of the world have noted how a new notion of 'scientific motherhood' transformed the ways in which mothers were expected to care for their babies. Mothers' intuition and their own mothers' advice were marginalized in favour of scientific explanations. Middle-class mothers were expected to educate themselves, and infant welfare centres, from the late nineteenth century onwards, offered individualized advice to mothers of newborn babies.²⁴

Such writing also reflected a new understanding of infancy as particularly fragile. In her recent book on the history of infant care in the modern USA, historian Janet Golden makes a compelling argument, which is also applicable to our reading of Abi Khatir's text. She argues that infants, due to their vulnerability, helped medical professionals enter homes and gain authority over a wide range of social and cultural practices.²⁵

In Egypt and Greater Syria, as elsewhere, middle-class women were instructed to spend more time with their children and closely supervise their health and development. The family home, for its part, was to be clean and hygienic, designed to raise fit, healthy bodies. Women's education was proposed as a remedy for children's poor state of health and hygiene.²⁶ Baron

¹⁹ Sonbol, op. cit. (2), pp. 119–20; Verdeil, op. cit. (4).

²⁰ Leigh Chipman, 'How and why did syrups survive Clot-Bey? Pharmacy in nineteenth-century Egypt as a response to a new chemistry', *Jerusalem Studies in Arabic and Islam*, forthcoming.

²¹ J. Heyworth-Dunne, *An Introduction to the History of Education in Modern Egypt*, London: F. Cass, 1968, pp. 104, 221–2, 301–7, 323–9, 436.

²² Marilyn Booth, *The Career and Communities of Zaynab Fawwaz: Feminist Thinking in Fin-de-Siècle Egypt*, Oxford: Oxford University Press, 2021, p. 288.

²³ Beth Baron, *The Women's Awakening in Egypt: Culture, Society, and the Press*, New Haven, CT: Yale University Press, 1994, pp. 159–63.

²⁴ See, for example, Thuy Linh Nguyen, *Childbirth, Maternity, and Medical Pluralism in French Colonial Vietnam, 1880–1945*, Rochester, NY: University of Rochester Press, 2016, pp. 142–69; Ranjana Saha, 'Milk, mothering and meanings: infant feeding in colonial Bengal', *Women's Studies International Forum* (2017) 60, pp. 97–110.

²⁵ Janet Golden, *Babies Made Us Modern: How Infants Brought America into the Twentieth Century*, Cambridge: Cambridge University Press, 2018, p. 103.

²⁶ Omnia El Shakry, 'Schooled mothers and structured play: child-rearing in turn-of-the-century Egypt', in Lila Abu-Lughod (ed.), *Remaking Women: Feminism and Modernity in the Middle East*, Princeton, NJ: Princeton University Press, 1998, pp. 135–8.

and Hibba Abugideiri have shown how child rearing came to be medicalized in the early twentieth century but ascribed this discourse to British colonial influence and Egyptian nationalism of the time.²⁷

In this early text, Dr Amin Abi Khatir (b. Zahle, d. Cairo 1922), fresh out of medical school (grad. 1877), educates mothers by pointing out long-standing mistakes, which medical science could rectify, helping them raise healthy children.²⁸ By 1917, Abi Khatir had written over forty articles for *al-Muqtataf*, on a variety of scientifically instructive topics including marriage, microbes, dreams and hypnotism.

Against the backdrop of what he terms ‘superstition’, Abi Khatir enters the family home and suggests its radical transformation in order to protect the child from fractures and scratches, illness and even death. These suggest that science and expert advice should guide the placement and composition of furniture, sleeping and feeding routines, the posture of the body, and the nature of the gentle touch between a caretaker and a child. The extended family which he envisioned does not include the wet nurse, and mothers are not to consult the long-trusted midwife when the child is sick. He contrasts the ignorant mother with the well-informed one, and midwives (who learned their trade through apprenticeship and had no formal training) with doctors capable of healing the child and giving sound medical advice. The text addresses two main concerns – the actual well-being of children and the proper management of a modern middle-class household. Thus, in this very first volume of *al-Muqtataf*, medicine introduces itself into private homes.

Sample questions and answers from *al-Muqtataf*

The selection of short questions and answers demonstrates the extent to which readers saw the journal as a source of knowledge. The questions and answers, which we have gathered here, appeared in *al-Muqtataf* between 1877 and 1897, and are almost self-explanatory. Readers asked the journals’ editors to help them draw the line between science and superstition and to explain the natural world around them. The topics of the questions and answers were extensive. We have chosen a small sample of medical questions to elucidate not only the engagement between the press and their readers, but also the social relevance that medical knowledge held during the *nahda*.

One of the questions we selected also demonstrates the relationship between medicine, gender and social and legal practices. The reader – Salib Efendi Istifanus from ‘Izbat Bishara Hanna in Egypt – after seeing a hermaphrodite, asks the editors how the law views such individuals with regard to inheritance. The editors’ explanation is clear and based on science – there is always a gender that is more dominant, they assert, and law follows the science.

Alexi Efendi Gasparoli’s question from 1885 about male breasts speaks to *al-Muqtataf*’s ongoing interest in evolution theory. Its editors – Sarruf and Nimr, saw it as their mission to popularize science, including Darwin’s theory.²⁹ *Al-Muqtataf* sided with the young American professor Edwin Lewis when the Protestant administration of the SPC fired him following his depiction of Darwin as a worthy example of scientific thinking during the medical school’s graduation speech (1882). While existing scholarship focuses on the

²⁷ Hibba Abugideiri, ‘Egyptian women and the science question: gender in the making of colonized medicine, 1893–1919’, *Arab Studies Journal* (Fall 1996) 4(2), pp. 46–78; Hibba Abugideiri, ‘The scientization of culture: colonial medicine’s construction of Egyptian womanhood, 1893–1929’, *Gender and History* (2004), 16, pp. 83–98; Beth Baron, ‘Perilous beginnings: infant mortality, public health and the state in Egypt’, in Esther Möller, Johannes Paulmann and Katharina Stornig (eds.), *Gendering Global Humanitarianism in the Twentieth Century: Practice, Politics and the Power of Representation*, Cham: Palgrave Macmillan, 2020, pp. 195–219.

²⁸ Alumni Association, *The American University of Beirut: Directory of Alumni 1870–1952*, Beirut: n.p., 1953.

²⁹ Elshakry, op. cit. (6), pp. 25–7.

larger theological questions surrounding Darwinism and human evolution, this short example attests to the mundane ways in which *al-Muqtataf* aligned itself with Darwin's theory.³⁰

The short question regarding the pregnancy of women in Berber reflects prevalent Egyptian biases towards the Sudanese as well as a preoccupation with Sudan as a whole – particularly in light of the Mahdi's victory that same year (1885) and the press coverage of the revolt which reached Arabic readers daily. Many Egyptians, moreover, worked in the Egyptian administration of Egypt's Sudanese territories or served in the Egyptian army from its occupation in 1821. Yet others saw Sudanese in Egypt itself as slaves, servants or merchants, and made them the subjects of jokes, stereotypes and caricatures.³¹ The othering of Sudanese women, in particular, served as a marker of Sudanese backwardness and Egyptian civilizational superiority.³² Thus the assumption that Sudanese women have longer pregnancies demonstrates this othering whereby customs and even biology were distanced from the Egyptian ones.

The editors did not require readers to add their names to their questions and typically published just the place from which it was sent (see the question from Salima (Mt Lebanon)), but from their ninth year (i.e. from 1883), for reasons unknown to us, they refused to publish questions from anonymous senders, but anonymized some of them in the published texts. Thus we find questions from readers that reflect diversity. Some are clearly local Muslims or Christians; one person in our sample is Jewish, and another is Italian. Among Egypt's Jewish, Italian and Greek communities, many read and wrote Arabic. Their choice to write to the journals implies that they shared a sense of belonging to this Arabic middle-class discourse.

Medical advice on human sexuality

As noted above, science and the printed press played a significant role in the formation and consolidation of a middle-class vision of modernity. The project of modernity included themes such as discipline, self-discipline, social reform and reform of one's conduct.³³ The questions and answers on sexuality that we have selected from *al-Hilal* testify to the extent readers embraced journals as a vehicle for self-education and self-cultivation.³⁴

The interest in venereal disease and masturbation reflects the concerns of the journals' main readership: young middle-class men who struggled with the challenges of the age – later marriage and long bachelorhood. Their elders labelled this 'the marriage crisis', a term which echoed a moral panic over men's refusal to marry and preference for the company of prostitutes.³⁵ Our translated examples foreground those young men's voices. Pertinent to our discussion, they framed these social conditions as a medical problem and saw the popular-science journal as a platform for airing their concerns. These are

³⁰ Elshakry, op. cit. (6), pp. 65–72; Shafik Jeha, *Darwin and the Crisis of 1882 in the Medical Department: And the First Student Protest in the Arab World in the Syrian Protestant College*, Beirut: The American University of Beirut Press, 2005.

³¹ Eve M. Troutt Powell, *A Different Shade of Colonialism: Egypt, Great Britain, and the Mastery of the Sudan*, Berkeley: University of California Press, 2007, pp. 5–6, 69, 78.

³² Powell, op. cit. (31), pp. 21–2, 70, 79.

³³ See, for example, Keith Watenpaugh, *Being Modern in the Middle East: Revolution, Nationalism, Colonialism, and the Arab Middle Class*, Princeton, NJ: Princeton University Press, 2014, p. 86; Jens Hanssen, *Fin de Siècle Beirut: The Making of an Ottoman Provincial Capital*, Oxford: Oxford University Press, 2005, p. 184.

³⁴ Wilson Chacko Jacob, *Working Out Egypt: Effendi Masculinity and Subject Formation in Colonial Modernity, 1870–1940*, Durham, NC: Duke University Press, 2011, pp. 156–85.

³⁵ Hanan Kholoussy, *For Better, for Worse: The Marriage Crisis That Made Modern Egypt*, Stanford, CA: Stanford University Press, 2010, pp. 39–43.

by no means isolated examples. The ‘journalist’s’ query about masturbation, for example, is one of a series of letters published in *al-Muqtataf* and *al-Hilal* about the topic between 1895 and 1905. Readers wrote about their own (and their ‘friend’s’ and ‘brother’s’) predicament, sought advice and provided advice to others.³⁶ We chose the examples in our translation for their explicit connections to reading, self-diagnosis and science. The authors of both questions, Hasan al-Misri and the ‘journalist’, chose to write to the journal after they had read about the problem, debated it with others, and only then sought advice. In their responses, the editors present themselves as an authority – by using medical language and inviting others to write to them as well.

Historians of other societies have understood masturbation as a concern about educated young men who studied and worked away from their parental home, married late in life, and were exposed to new knowledge about their bodies. Thomas Laqueur saw eighteenth-century anxieties about masturbation as an enactment of Enlightenment fears of the perverse effects of its own freedoms: privacy, self-gratification and self-sufficiency. Increasing literacy meant that the young had unmediated access to knowledge. Anti-masturbation literature was a pedagogical project aimed at creating a self-disciplining individual who can be trusted with his new freedom.³⁷ Foucault views the masturbating boy as one of the targets of nineteenth-century regulation of sexuality. The young man’s unsupervised free time became an object of anxiety and those acts performed in private became the object of control.³⁸ In contrast, the text demonstrates young people’s initiative in the attempt to discipline their bodies. Nonetheless, the medical discourse of these journals helped define masturbation as a pathology, invited men to self-diagnose, and then positioned themselves as an authority offering a solution.

The ‘journalist’s’ question on masturbation demonstrates the multiple layers of discipline the young man imposed on his body. He had read *al-Hilal* and internalized the taboo on masturbation. He then ascribed bodily weakness to this habit, consulted doctors but refused to accept their remedies because he was convinced that it was only his own habit that brought about his symptoms. He did not content himself with reading *al-Hilal*; he needed the editors’ individual answer to his predicament. *Al-Hilal*, for its part, suggested yet another disciplinary measure – an intensive, supervised purification. They also offered themselves as a source of advice for others. Anti-masturbation thus becomes here an individual and collective effort of self-discipline and nurturing of proper modern masculinity. Here, *al-Hilal* cultivated an imagined community of fellow addicts who could assist each other and be assisted by reading the journal and the individual information pamphlets it offers to provide.

The discussion of venereal diseases was related to the introduction of regulated prostitution to Egypt in 1883, a few months after the British occupation. Prostitutes were registered and were medically examined on a weekly basis – which gave men the illusion that they were safe from infection.³⁹ Indeed, although regulation was abolished in Britain itself, it was exported to British colonies. There, it was designed primarily to protect British soldiers from venereal diseases, while also enabling the supervision of lower-ranking servicemen and preventing interracial sex. Registration of prostitution and brothels, moreover, enabled efficient control of local sexuality and of urban space.⁴⁰ Already in

³⁶ Liat Kozma, “‘We, the sexologists ...’: Arabic medical writing on sexuality, 1879–1943”, *Journal of the History of Sexuality* (2013) 22, pp. 440–3.

³⁷ Thomas Laqueur, *Solitary Sex: A Cultural History of Masturbation*, New York: Zone Books, 2003, pp. 248–347.

³⁸ Michel Foucault, *History of Sexuality*, vol. 1: *The Will to Knowledge* (tr. Mark Kelly), Edinburgh: Edinburgh University Press, 2013, pp. 104–5.

³⁹ Francesca Biancani, *Sex Work in Colonial Egypt: Women, Modernity and the Global Economy*, London: I.B. Tauris, 2018.

⁴⁰ Philippa Levine, *Prostitution, Race and Politics: Policing Venereal Disease in the British Empire*, London: Routledge, 2003, pp. 38–59.

the late nineteenth century, critics noted that a system that inspects only women could not really be disease-free. Others believed that prostitution was a necessary evil, and therefore suggested an obligatory health certificate for men intending on marriage.⁴¹

Early twentieth-century social reformers blamed young men for the spread of venereal diseases, which threatened the innocent victims – their future wives and offspring. Suggestions to make premarital medical examinations obligatory (such as the examination mentioned in the text) were not passed as laws, but, from 1920, a woman could use her husband's venereal disease as legal ground for divorce.⁴² In the Ottoman centre of Istanbul, as medical services were unable to treat all syphilitic men, health propaganda warned men of the peril of syphilis – in an attempt to create 'self-sufficient, knowledgeable, and responsible men free from the disease'.⁴³ Al-Misri's question indicates that young men obtained medical certificates voluntarily and might have been expected to do so. Brides, on the other hand, were assumed to be virgins prior to marriage.

Anisa Sayba'a's 'Tuberculosis and its new treatment'

This article, published in 1903 in *al-Muqtataf*, begins with an intimate moment between a doctor and her patient. Anisa Sayba'a, a doctor and a surgeon born in Tripoli (Greater Syria) in 1865, ran a private clinic in Cairo at the time she was writing. She was one of the earliest women medical doctors in the Middle East. She studied medicine (a master's degree in medicine and surgery) at Edinburgh's Medical School for Women in 1899 and in 1900 settled in Cairo, where she died in 1944. The Arabic press celebrated her outstanding success in her studies, graduation and return to the region.⁴⁴

Women doctors born in Egypt and Greater Syria were rare during this time. Neither Qasr al-'Aini nor the SPC and St Joseph opened their regular medical programmes to women until the 1920s. Yet women had received modern medical training as doctors/midwives (known as *hakimas*) in Qasr al-'Aini from the 1830s. These women were stationed in Egypt's new police stations and examined forensic evidence.⁴⁵ This training programme was shut down following the British occupation of Egypt. Thus, with no options to study in the region, a few pioneer women, such as Hilana Barudi and Sayba'a, travelled to Europe and America to study medicine.

The gentleman entering her clinic seeking her advice on a new medication for tuberculosis that he had read about in the papers demonstrates his respect for her professional credentials, as well as readers' engagement with the press as a source of up-to-date medical discoveries. Indeed, Arab doctors and the general press took up the challenge to educate the public about disease diagnosis and prevention. Many of the articles in the journals dealt with epidemics, which remained a fatal threat in the second half of the nineteenth century. Articles in the general and medical press discussed cholera, the plague, bilharzia, tuberculosis and more.

The later decades of the nineteenth century were an exciting time to discuss infectious diseases. The Pasteurian revolution of the 1870s opened new possibilities for diagnosis and prevention. The victory of the contagion theory over the miasma theory meant

⁴¹ Hanan Kholoussy, 'Monitoring and medicalising male sexuality in semi-colonial Egypt', *Gender & History* (2010) 22(3), pp. 677–89.

⁴² Kholoussy, *op. cit.* (41), pp. 680–3.

⁴³ Seçil Yilmaz, 'Threats to public order and health: mobile men as syphilis vectors in late Ottoman medical discourse and practice', *Journal of Middle East Women's Studies* (2017) 13(2), pp. 222–43, 224, 230–1.

⁴⁴ See *al-Muqtataf* (1895) 19, p. 713; *al-Muqtataf* (1899) 23, p. 718.

⁴⁵ Khaled Fahmy, 'Women, medicine, and power in nineteenth-century Egypt', in Lila Abu-Lughod (ed.), *Remaking Women: Feminism and Modernity in the Middle East*, Princeton, NJ: Princeton University Press, 1998, pp. 35–72.

that the authorities, on the one hand, and the individual, on the other, could protect themselves and others from infection. To do so, however, they had to be very well informed. Journals updated their readers about the rapid development of microbiology during the 1870s and 1880s. They also updated the public about new kinds of treatment and their effectiveness (or lack thereof).

The acceleration of travel and the migration of many thousands of Europeans to the region increased the mobility of diseases. As for tuberculosis, Sayba'a states that there is no effective medication, and the only useful treatment is the kind one can obtain in a sanatorium. This was a controlled environment in which all activities were regulated – from the type and quantity of food and exercise to the air, temperature and hygiene of the patient's surroundings. Sayba'a links tuberculosis to socio-economic conditions when she cites a suggestion that to lower tuberculosis rates, workers' wages should be increased, the standard of living improved and attention given to the dwellings of the poor. Thus tuberculosis was constructed not only as a social problem but also as one with a social solution.

Local physicians argued that sanatoriums were needed in Greater Syria and Egypt. Local health authorities were acknowledged as understaffed and unmotivated.⁴⁶ In light of their failings, Sayba'a and other local physicians wrote and worked toward this aim with little help from the authorities. Arabic periodicals encouraged and endorsed efforts to establish a local sanatorium. Despite these efforts, a sanatorium was only established in the region in 1908, in Chbaniyeh, north-east of Beirut.⁴⁷

Conclusion

Taken together, the translated excerpts contribute to our understanding of a bottom-up production, reproduction and reception of global scientific knowledge, as well as to a social and intellectual history of science. We argue here that the engagement with science during the *nahda* was a multi-vocal and dialogical process, in which doctors and patients, journal editors and their readers, negotiated the implications of scientific knowledge for their own lives and their own society. The examples also help us historicize class formation, self-modernizing processes and the diffusion of the Arabic press into homes. Whereas historians of the press saw it as a 'new pedagogic devotion to the popularization of science',⁴⁸ we demonstrate here that it also served as a dialogical forum.

Acknowledgements. This article is part of a broader project, A Regional History of Medicine in the Middle East (mideastmed.org), funded by the European Research Council, grant ERC-2016-COG, Mideast Med, grant 723718. We thank Adam Anabosi for his work on the transcription of the texts, and Jane Murphy, Sahar Bazzaz, Leigh Chipman, Benny Nuriely and the anonymous reviewers for their input on earlier versions of this paper.

Supplementary material. To view supplementary material for this article, please visit <https://doi.org/10.1017/S0007087422000413>

⁴⁶ 'al-Sill wa Isti'salihi', *al-Muqtataf* (1902) 27, p. 313.

⁴⁷ Shereen Khairallah, *The Sisters of Men: Lebanese Women in History*, Beirut: Inst. for Women's Studies in the Arab World, Lebanese American University, 1996, p. 249.

⁴⁸ Elshakry, op. cit. (6), p. 25.

Cite this article: Khayat N, Kozma L (2022). Medicine and Arabic literary production in the Ottoman Empire during the nineteenth century. *The British Journal for the History of Science* 55, 515–524. <https://doi.org/10.1017/S0007087422000413>