2008

Medicine

Amy Bix
Iowa State University, abix@iastate.edu

Follow this and additional works at: http://lib.dr.iastate.edu/history_pubs
Part of the History of Science, Technology, and Medicine Commons

The complete bibliographic information for this item can be found at http://lib.dr.iastate.edu/history_pubs/94. For information on how to cite this item, please visit http://lib.dr.iastate.edu/howtocite.html.
Abstract
Since ancient times, the theory and practice of medicine have been influenced by assumptions, generalizations, and myths about the differences between men and women. Across cultures and many centuries, folk medicine promoted superstitions about gender, such as a popular belief that the female body was connected to the lunar cycle.

Disciplines
History of Science, Technology, and Medicine

Comments
This is a chapter from Women, Science, and Myth: Gender Beliefs from Antiquity to the Present, Sue Rosser, ed. (Santa Barbara: ABC-Clio, 2008): 135-140. Posted with permission
Since ancient times, the theory and practice of medicine have been influenced by assumptions, generalizations, and myths about the differences between men and women. Across cultures and many centuries, folk medicine promoted superstitions about gender, such as a popular belief that the female body was connected to the lunar cycle.

**Antiquity**

In the fourth century BC, followers of Hippocrates, the "father of medicine," sought to separate medicine from magic and wrote numerous books analyzing female anatomy, women's illnesses, and childbirth. Hippocrates argued that in their natural balance of the body's four essential humors (blood, phlegm, yellow bile, and black bile), women were "colder" and "wetter" than men and therefore more emotional and more sexual. Women's looser-textured flesh supposedly retained more moisture, and the Hippocratics warned that without regular menstruation to purge this surplus fluid, women could suffer mental distress, physical illness, or even death. Virgins at the onset of puberty were considered particularly vulnerable to mental disorders, stemming from menstrual irregularity before the womb had been "opened" via sexual relations, and some observers prescribed marriage as the "cure." Without a woman's regular menstruation or intercourse, humoral imbalances could dislocate the uterus from its proper place, and this "wandering womb" would cause headaches, pain, or other symptoms as it moved around the body. Physicians recommended enticing the womb back to its proper place with sweet scents, believing that the womb, like an animal, reacted to smells. This belief in the uterus as a primary source of women's illnesses and strange weaknesses continued for centuries and led to the concept of "hysteria" (the word derived from the Greek for "uterus") (Tuana 1993).
Writing about natural philosophy, Aristotle started from the premise that men were more biologically advanced than women, who had less “vital heat” and were therefore weaker physically, mentally, and emotionally. Aristotle asserted that in almost all species, females were smaller, less courageous, and more deceptive. Aristotle defined a fundamental dichotomy between males as active and rational, and females as passive and emotional. He portrayed the male as the true and superior form of nature, the female as a departure from that ideal. Such biological characterizations accorded well with patriarchal Greek life, which excluded women from citizenship, and Greek mythology that portrayed women’s existence as punishment for men. Building on such arguments, the influential physician Galen maintained that male and female genitals were structurally identical, but women’s lack of vital heat prevented theirs from emerging from the body, the final step in development. The assumption that women had less vital heat than men shaped theories about reproduction. Aristotle argued that women contributed only raw material to make new life, while men created the higher spirit by passing on soul and intellect.

Europeans followed the writings, prescriptions, and assumptions of Aristotle, Hippocrates, and Galen as unchallenged expertise through the medieval era, when Christian doctrine reinforced biological ideas of women’s weakness and inferiority. Church leaders insisted on clerical celibacy and monastic seclusion, denouncing women as the devil’s temptation. Some theologians maintained that childbirth pains represented God’s ongoing punishment for Eve’s responsibility in the fall of man. Theologians’ assessment of women as weak and wicked corresponded with both medicine and superstition. Biblical rules for women’s ritual cleansing linked menstruation to contamination, while physicians warned that intercourse during menstruation would result in a malformed child. Menstrual blood itself was considered either dangerous or magical, and popular rumor held that a menstruating woman could cause cows to stop giving milk.

Thomas Aquinas (1225–1274) accepted Aristotle’s assumption about women having less vital heat and lent the Church’s weight to reinforce generalizations about women as biologically inferior to men. Church authorities fed the witchcraft scare of the 1500s and 1600s that spread across Europe and America, suggesting that women’s inherent mental and emotional weakness made them especially susceptible to Satan’s lures.

Through the Middle Ages, medical students were taught by rote recitation of Galen or Hippocratic work, and social, religious, and legal regulations generally prohibited human dissection. Physicians thus clung to inaccurate anatomical ideas; some textbooks showed a uterus divided into seven chambers or treated the uterus as an independent creature that could be irritated or calmed. Respected writers repeated tales of women who gave birth to 20 children in just two pregnancies.
Renaissance

Renaissance medical advances offered a new approach to anatomy. Leonardo da Vinci (1452–1519) produced voluminous sketches of muscles, organs, and other bodily components out of interest and a desire to make his artistic depictions more accurate and graceful. But while his notes and drawings revealed greater understanding of anatomy than any before, Leonardo’s journals and studies were not published or made widely accessible for many decades. Before then, Andreas Vesalius (1514–1564) avidly undertook dissections (at great risk, due to religious scruples and civil prohibitions against violating bodily integrity). In The Structure of the Human Body (1543), Vesalius opened a new era for studying the human body and corrected some, though not all, errors in older notions about the structure of the female reproductive system.

18th Century

By the 18th century, scientific biology had encouraged reevaluation of ideas about female nature. Rather than regarding women’s anatomy as an incomplete distortion of man’s, experts instead portrayed women’s reproductive system as unique. The uterus represented the perfect tool for pregnancy, letting women fulfill their main function in life, while men’s greater physical and intellectual strength matched the demands of their public and military leadership. Anatomical illustrations often exaggerated sex differences, highlighting women’s larger pelvis, and anatomists deliberately selected models who represented the ideal masculine or feminine build, thereby both reflecting and reinforcing cultural values (Schiebinger 1989).

Behind the supposedly objective science, assumptions about women’s inferiority persisted, as shown in 19th-century studies of the brain. Observers realized that while overall men had larger brains than women, women’s skulls were proportionately larger to their bodies. Craniologists suggested that women’s large skulls actually proved their biological immaturity, placing them on an anatomical parallel with children, who have relatively large heads and delicate bone structure (Russett 1989).

Despite tangible advances in the practice of European and American medicine, 19th-century medical theories and treatments revealed the persistence of gendered assumptions (Haller and Haller 1974). Just as Greek physicians blamed the “wandering womb” for many female illnesses, Victorian physicians believed that the uterus was directly connected to the nervous system and thus could cause disease throughout a woman’s body. Like the Greeks, they emphasized the dangers posed to young women by the onset of menstruation.
Even as 19th-century observers measured women's nature and life options in terms of reproductive capacity, they characterized the female reproductive system as inherently pathological, causing all sorts of physical, mental, and emotional complications. Reflecting what historians have called the ideology of "separate spheres," authorities defined men's role as public life, politics, and business, and women's role (at least among the middle and upper classes) as children and household. Novels and advice books promoted this "cult of domesticity," characterizing the true woman as submissive, pure, and self-sacrificing. Among some upper-class women, romanticized invalidism even became stylish, and corsets made it hard to eat, sit, or even breathe normally. Women expected to collapse during every menstrual period, and experts cautioned women against dancing, riding, or shopping at "that time of the month." "Hysteria" represented an ultra-emotional extreme of delicate womanhood. Historians have suggested that for some women, hysteria became a means of claiming attention, fighting social control, or escaping family demands. The "rest cure" for mental breakdown confined patients to a dim room without visitors, a lack of stimulus meant to sink the brain into inactivity.

**Impact on Education**

Even as medical thought seemingly justified assumptions that women's biological cycle, from menstruation to menopause, kept them fragile and unfit for social roles beyond the home, women after the mid-1800s pursued wider concerns and interests. In the United States, coeducational state land-grant colleges offered women increasing opportunity to pursue advanced degrees, as did private women's colleges. By 1891, over 10,000 women were enrolled in higher education, yet observers worried that education made women too mannish. Prominent doctors, including Harvard professor Edward Clarke, warned that higher education posed substantial medical risk for young women. Physicians argued that the human body, like an economic system, contained only finite resources and that women who devoted too much energy to the brain would drain away sustenance for vital reproductive organs. Clarke cautioned that especially during menstruation, women who studied as hard as men risked nervous collapse, physical breakdown, or future infertility. Many experts worried about indications that female graduates had lower marriage rates and fewer children than the noncollege female population. Officials at women's colleges defended the appropriateness of female education, promoting exercise and healthy habits among their students and collecting data to prove female graduates' good health.

Further controversy arose as women sought to enter the modern medical profession. Historically, women across cultures had long served as family
...life options in reproductive, mental, and political life, politics, (upper classes) and this "cult of Nature, and self-validism even for normally. Women, and experts at the time of the indicate woman prerogatives became a living family desire to a dim room inactivity.

20th Century

But while the 20th century brought numerous changes in women's political, economic, legal, and social conditions, gendered assumptions about women's nature continued to affect medical thinking. Especially after World War II, with suburbanization and the baby boom, social scientists reasserted the centrality of traditional gender roles. Freudian psychology, postwar corporate advertising, and American popular culture glorified marriage and presented domesticity as women's natural calling. Experts warned that ambitious girls who rejected womanly instincts and competed with men for paid employment risked unhappiness, spinsterhood, frigidity, infertility, or homosexuality.

By the 1960s and 1970s, feminism turned many medical matters into political issues, fighting old stereotypes and encouraging new questions about the biology of gender. The feminist health movement organized to help women better understand their own bodies and gain the courage to demand non-paternalist, non-judgmental, and satisfactory medical treatment. Activists protested that the male-dominated medical establishment devalued women, with gynecological textbooks that promoted sexist stereotyping and encouraged doctors to patronize female patients. They denounced a lack of respect for women's physical autonomy that led doctors to perform unnecessary hysterectomies and turned childbirth into hypermedicalized, assembly line torture.

Greater female representation gradually created noticeable changes in the look and outlook of the medical system, at least in some aspects. In 2006, women outnumbered men in medical school applications (though male
admissions remained a bare majority). However, women entering macho specialties such as surgery still complained about discrimination and harassment from the "boys' club" (Rosser 1993).

Recent research seeks to address unsolved questions about biological sex differences. For such reasons, it is essential to continue thinking about the history and persistence of gender assumptions in medicine. (See also Antiquity; Women's Education; The 18th Century; Medieval Era; The 19th Century; Renaissance; Women's Health Movement)

References and Further Reading


