



Is the Writing on the Wall for Current Medical Oaths? A Brief Historical Review of Oath Taking at Medical Schools

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Abstract

Oaths recited in medical schools provide valuable insight into the medical profession's evolving core of ethical commitments. This study presents a brief overview of medical oaths, and how they came to attain their current prominence. The authors examine medical oaths used in twentieth-century North America (the USA and Canada) through a critical review of six studies on oath administration and content that were undertaken between 1928 and 2004. While oath-taking became almost universally prevalent in twentieth-century North American medical schools, the ethical content of oaths grew increasingly heterogeneous. The findings challenge assumptions about the content of medical oaths. They also create dynamic markers for gauging the variability in the current ethical milieu of medical education, providing a basis for evaluating future direction.

Keywords Oath-taking · Hippocratic oath · Hippocrates · Medical ethics · History of medicine · White-coat ceremony

Introduction

Historical Context

The past century featured remarkable developments in the health sciences and biomedical technology. These advances were accompanied by revelations about human experiments that eroded the trust in medical practice. Historically in

Western medicine, the ethical commitment of physicians has centered on oath-taking, based on the Hippocratic Oath. The original Oath was part of a collection of medical texts, now known as the *Hippocratic Corpus*, written around 400 BC by a group of physicians, who were followers of Hippocrates [1–3]. Despite its longevity and the continuous influence of its principles across geographical, cultural, and linguistic boundaries, the origins and authorship of the Oath remain unknown. The extent of its use in medical education and practice is also more complex than realized. Already in antiquity, if we take the critical appraisal of Scribonius (first c. AD), the oldest extant source that discusses the Oath, physicians did not adhere to its principles [2]. Observance of some Hippocratic principles appears to have increased among theologian-physicians in early Christianity, when caring for the sick was perceived as an act of love to others and service to God [4–6]. By the tenth century, the “pagan” Oath had undergone a “monotheistic” adaptation (through translations from the original Greek into Syriac and Arabic by Nestorian scholars, and subsequently from Arabic into Latin). The Latin version invoked the Trinity (so that “a Christian may take it.”) and tightened the ambiguous abortion proscription of the original [6–8].

The earliest record of required oath-taking in medical school dates to the Renaissance, with the revival of classical knowledge and the emphasis on using original Greek sources, rather than translations [9]. Its use was sporadic for several hundred years. Some students recited paraphrases, as at

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Edinburgh Medical School (1700s), or swore a modified version, as at Montpellier (early 1800s) [2]. In America, adherence to the *Hippocratic Oath* became briefly fashionable in mid-eighteenth century. Shortly thereafter, seen as a burden to “enlightened” medicine, its use declined in both America and Europe [2]. The Oath’s resurrection in the nineteenth century, and increasingly widespread use in the twentieth, presents a complex development. While oath-taking became almost universally prevalent in twentieth-century North American medical schools, its ethical content became increasingly heterogeneous.

Six studies between 1928 and 2004 have examined the Oath’s patterns of use in North American medical schools (the USA and Canada). Our analysis reveals emerging trends that are directly relevant to current concerns. Identifying these trends is important as they may suggest future directions.

The Modern Dispersion of Medical Oaths

Carey 1928

Eben Carey conducted the earliest survey of medical oaths in North America [10]. Of the 79 medical schools surveyed, 74 (94%) responded. Only 14 (19%) indicated that an oath was administered, 13 (93%) of which required taking it. Four of the 14 (29%) schools were Canadian. The study gathered the texts of the oaths and disclosed which institutions administered them, along with personal notes from medical deans on the oaths’ applicability to contemporary medicine. The study conducted no textual analysis. From our reading of the texts, the Hippocratic Oath was only taken at 2 (2.7%) schools. Two (2.7%) other oaths mentioned deities. Avoiding “criminal purpose” often replaced such specific moral precepts as avoiding sexual misconduct or engaging in euthanasia.

Irish and McMurray 1965

Irish and McMurray performed the first content analysis, surveying 97 schools, with 96 (99%) responses [11]. Sixty-four (66%) schools provided the text of their oath. Recurring statements were “avoidance of injury,” appearing in 58 (91%); “welfare of patients” in 63 (98%); and “confidentiality-privacy” in 64 (100%). Of the 62 schools that used an oath in the USA (out of 84 responding schools; 74%), 7 (11%) used the Hippocratic Oath, 14 (23%) a “modern” Hippocratic Oath, 11 (18%) the Declaration of Geneva, 27 (42%) “other,” 3 (4.8%) “various,” and 1 (1.6%) “undesigned”. Public universities were more likely to administer the Declaration of Geneva and the Hippocratic Oath. “Southern” schools tended to use the Hippocratic and “Northern” schools the Declaration of Geneva. Among the 12 Canadian medical schools existing at that time, 7 (58%) reported using an oath: 1 (8.3%) the

Geneva Declaration and 6 (50%) “other.” Oaths tended to be administered at graduation. Irish and McMurray noted the post World War II interest in medical ethics, and the special attention that 47 (73%) of oaths devoted to the inviolability of human life.

Friedlander 1982

In 1976–77, bioethicist Walter Friedlander surveyed 128 US and Canadian medical schools [12]. All responded. Out of the 10 Canadian schools that administered an oath (all supplied a copy), 2 (20%) used a modified Hippocratic Oath, 1 (10%) the Declaration of Geneva, and 7 (70%) “other.” Oaths administered at 105 (94%) schools in the USA were analyzed in greater detail. Of the 98 US schools that supplied a copy of their oath, 6 (6.1%) administered the Hippocratic Oath, 43 (44%) a modified Hippocratic version, 29 (30%) the Declaration of Geneva, 11 (11%) the Prayer of Maimonides, and 9 (9.2%) “other”. Unlike Irish and McMurray, Friedlander found geographical oath-administration patterns in America to be only “borderline significant [statistically].” Schools not using an oath often cited an administrative burden or questioned an oath’s utility. At least 4 (4.0%) schools used 2 oaths, and 51 (52%) allowed student bodies to choose the oaths themselves.

Friedlander compared the themes of the oaths identified in his results with those from Irish and McMurray’s analysis. While only 2 (2.0%) of US oaths prohibited abortion, 30 (31%) pledged to “respect life.” This was an ostensible decrease from the 47 (73%) noted by Irish and McMurray, who used the comparable term “sacredness of life” in their analysis. Notably, 19 (19%) of the oaths made a religious affirmation to a non-Greek god; 10 (10%) invoked the Greek gods. Fifty-nine (60%) mentioned collegiality, 46 (47%) required respect for teachers, and 91 (93%) mandated confidentiality.

Dickstein et al. 1991

Dickstein and colleagues surveyed “all” (number unspecified) US medical schools [13]. Every responding school administered some type of ethical statement at graduation. No detailed content analysis was provided; the authors only checked the oaths for Beauchamp and Childress’s principles. The authors noted the infrequency with which the oaths included a reference to preserving patient autonomy. Themes of beneficence and non-maleficence were more common, but protection of patient-confidentiality was the most frequently espoused value. Interestingly, many of the schools incorrectly labeled their oaths. For instance, Hippocratic oaths were administered by only 60/74 (81%) schools that used the title “Hippocratic.” Forty-seven (64%) administered the Declaration of Geneva, but only 24 (32%) labeled them as such.

Orr et al. 1997

In 1993, Orr and colleagues surveyed 142 allopathic and 15 osteopathic medical schools in the USA and Canada [14]. The 150 (96%) responses were mostly analyzed as a whole, not by country. One hundred and forty-seven (98%) of responding schools administered a professional oath. The oath was typically taken at graduation, and 5 (3.3%) schools reported that they required students to sign the oath. While 74 schools (49%) claimed to use the “Hippocratic Oath,” just 1 (0.6%) used the original. Four schools (2.4%) affixed the name of Hippocrates to the Declaration of Geneva. Only 11 (7.5%) limited abortion, 20 (14%) forbade euthanasia, and 5 (3.4%) proscribed sexual misconduct. While 63 (43%) invoked external witnesses, only 16 (11%) invoked a deity, using the phrase “whatever I hold sacred” as a substitute.

Kao and Parsi 2004

Kao and Parsi collected data from 122 allopathic and 19 osteopathic US medical schools in 2000 [15]. They found that some type of commitment was universally made at commencement or graduation. The study noted the development of “white coat ceremonies” at 77 (63%) of the allopathic schools. Fifty-nine (48%) of allopathic schools used a Hippocratic-like oath. In their analysis, the authors observed that nearly 18 (15%) of allopathic schools allowed students to choose from a spectrum of oaths. Thirty (25%) oaths were student- or faculty-written, and only 1 (0.82%) school administered the original Oath of Hippocrates. Compared with the modified traditional oaths, student-written oaths were more focused on autonomy, prejudice, and a just society. Student oaths were less likely to prohibit specific medical actions on moral grounds (e.g., euthanasia). A school’s religious or other affiliation did not significantly affect oath-administration practices.

Is the Writing on the Wall for Contemporary Medical Oaths?

Discussion

Significant methodological variation in the reviewed studies makes comparison difficult. Still, certain trends can be identified. Carey et al. (1928) provided the texts of the actual oaths, but no analysis. Conversely, each study thereafter employed new methods of qualitative analysis, but did not provide the actual texts of the oaths. Dickstein et al. (1991) lacked precision in describing their methodology, often overusing broad terms such as “a few,” “approximately half,” etc., and anachronistically criticized ancient oaths for not employing ethical

terminology in a modern sense (e.g., “autonomy”). They also assert that “Justice...was noticeably absent in those schools taking the Oath of Hippocrates,” even though the Oath actually contains a direct reference to preventing “injustice” [13]. In contrast, Kao and Parsi appropriately credited concepts instead of looking for specific terms (e.g., “confidentiality,” “properly informed patient”) [15].

All of these studies looked only for content that the authors expected a priori (e.g., Beauchamp and Childress’ principles). Thus, other themes may have been overlooked. Methodologies were vaguely explained. Geographical coverage lacked consistency. Carey, Irish and McMurray, and Friedlander investigated both US and Canadian oaths, whereas Dickstein as well as Kao and Parsi only investigated oaths in the US. Orr’s investigation provided almost no breakdown by country. Unfortunately, these studies did not define their usage of such terms as “Northern,” “Southern,” “allopathic,” and “osteopathic.” The comparison is further complicated by the emergence of new schools after 1928. Some of the variation in the prevalence and ethical content of the oaths may be due to new schools with new values and moral priorities, rather than changing values within existing medical schools.

Despite methodological limitations, the apparent evolution in the content of medical oaths represents a real phenomenon. This is evinced by similar shifts in the Declaration of Geneva, formulated by the World Medical Association in 1948 [16]. The 1968 version added a promise to respect confidentiality [17], a suddenly popular phrase that was noted in 100% of oaths reviewed in Irish and McMurray’s 1965 paper [10]. In 1983, the Declaration changed “respect for human life from the time of conception” to “respect for human life” [18]. This reflects the shift from 1965 to 1977, during which 73% of oaths went from acknowledging the inviolable “sacredness of life” to 31% pledging to “respect life” [11, 12]. Changes in 1994 brought gender neutrality to the Declaration and expanded the list of categories that must not be discriminated against to include age, disease, disability, creed, ethnic origin, and sexual orientation [19]. This mirrored the increasing affinity for student-written oaths, which featured multiple references to repairing injustice and eradicating prejudice [15]. The oaths in 2000 also showed an increasing emphasis on patient autonomy, a theme which became the focal point of the 2017 amendments to the Declaration of Geneva [20]. These changes included a reordering of previous commitments and new pledges for physicians to care for themselves, to use knowledge to advance healthcare, and to seek the “well-being” of one’s patient (in addition to “health”), among other alterations [20]. As no apparent survey of medical school oaths has been published since Kao and Parsi’s study, new research is needed to assess whether the substantial revisions of the 2017 Declaration correlate with broader changes in contemporary oaths.

Table 1 Summary of the use and content of oaths[†] over time

	1928	1958/ 1965	1977/ 1982	1989/ 1991**	1993/ 1997**·^	2000/ 2004**·^
Schools using an oath (% of responding schools)						
Total	19*	72	92*	?	98	85
Canadian	?	58	63	?	80	
US	?	73	94	100	100	
Type of oath used over time—US and Canadian data						
Hippocratic (modified, modern, classical)	13/74^^	21/96	51/128	60/127	69/135	60/122
Geneva	0	12	30	47	34	28
Maimonides	0	0	11	14	4	2
Louis Lasagna	0	0	0	4	5	2
Other	6^^	32	16	2	20	30
Various		3				
Undesignated		1				
Canadian specific oath types						
Hippocratic (modified, modern and classical)	0/4	0/7	2/10			
Geneva	0	1	1			
Other	4^^	6	7			

[†] The various oaths—excepting faculty/student-written oaths—can be found in the public domain. Some, such as the Declaration of Geneva, have been amended on occasion since their inception. We recommend Ludwig Edelstein's translation of the original Hippocratic Oath

*Authors' calculated values; denominator reflects number of responding schools

**No Canadian data available

^Authors excluded osteopathic Oath

^^Original paper has apparent discrepancies in the total number of oaths, possibly due to multiple oaths being used per school

Conclusions

While the Hippocratic oath was popular in the mid-eighteenth century, within 70 years (i.e., by 1928), oaths became rare, and arguably less and less “Hippocratic” [10]. Another 70 years restored the usage of oaths, but the oaths became even more diverse with regard to title and content (Table 1). The invocation, a regular feature of oaths prior to 1928, either disappeared or was replaced by the phrase “whatever I hold sacred” [15]. Except for the study done in the years between World War II and *Roe v. Wade* (1973), prohibitions of abortion and euthanasia became increasingly rare, which may reflect cultural attitudes and legal changes. As noted in 1928, injunctions to follow the laws of one's country replaced absolute moral tenets, such as proscriptions of sexual relations with patients. Denunciations of discrimination against patients became more prevalent over time. Friedlander et al. (1982) saw the beginnings of a shift towards student-written or selected oaths. Interestingly, despite the shift in content, oath titles often maintained the epithet of Hippocrates. More recent studies have shown an increase in the use of oaths during “white coat ceremonies” [15].

Sworn oaths proclaim what physicians believe to be worthy of defense, specific to their own time. Moreover, since oaths are increasingly administered at the beginning

of medical education, they represent an ethical starting point—a foundation, whether of sand or stone, upon which curricula can be built. Medical schools periodically modify their medical oaths to fit their institution's evolving educational vision. As such, medical oaths are dynamic, containing discrete, quantifiable, and intentional phrases reflective of contemporary ethics. Analyses of their content serve as valuable windows into medicine's self-understanding as an ethical profession.

Future studies need to define clear methodologies for collecting, analyzing, and reporting qualitative information (i.e., the textual content of the oaths). Examining the formative influence and context of oaths in medical education is of fundamental importance for ethical clinical practice. With this overview, medical educators may reflect upon the role of today's oaths in promoting physician accountability and heed the Hippocratic Oath's prescient warning about the judgment of posterity, lest they too be weighed in the balances and found wanting.

Compliance with Ethical Standards

Ethical Approval Not applicable.

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