Hallway Medicine: Prevalence, Characteristics and Attitudes of Hospital Physicians

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Key words: hallway medicine, informal consultations, physicians, hospital, quality of care

Abstract

Background: Hallway medicine is an integral part of physicians' medical culture, but little is known about it.

Objective: To characterize the practice of hallway medicine among hospital physicians, both as providers and consumers.

Methods: We conducted a survey of 112 randomly chosen hospital physicians at the Soroka Medical Center in Beer Sheva, Israel between November 1997 and May 1998. A self-administered 39-item questionnaire was used that included sociodemographic data, the extent to which hallway medicine is practiced, and satisfaction from and attitudes to it.

Results: Of the 112 selected physicians, 111 responded (99.1%). Of these, 91 (82%) had been asked by their colleagues to provide hallway medicine. Most of them (91%) agreed because of "willingness to help," because "it's unpleasant to refuse," or "it's the acceptable thing to do." Most of the requests (72%) were unscheduled and time consuming (41% up to 10 minutes and 21% more than 20 minutes). Records were kept in only 36% of the cases and follow-up in 62%. Physicians who provided hallway medicine were also consumers of it ($P<0.001$), based on personal acquaintance, time saved and easy accessibility. In general, the attitude to hallway medicine was negative (54%) or ambiguous (37%). Most requests for hallway medicine were made to Israeli-trained physicians, surgeons or gynecologists, and senior physicians.

Conclusions: Hallway medicine is practiced frequently among hospital physicians. A formal organization of health care service within medical centers might provide physicians with better medical care and reduce potential ethical, medical, legal, psychosocial and economic problems.

IMAJ 1999;1:241–244

Medical personnel receive different medical care than the rest of the population. Physicians tend to treat each other and their families, and in fact most doctors in the United States consider free medical treatment by their colleagues to be their prerogative [1]. The proximity to medical services enables physicians to both choose the appropriate type of care and request informal help from fellow physicians [2–4]. In 1803, Thomas Percival formulated ethical principles regarding the treatment of physicians and their immediate families that required fellow physicians to provide them with free or discounted health care [5]. These principles were adopted in 1847 by the American Medical Association, which formulated the first ethical code for the profession [6]. More recently, the AMA has changed its position and the current code of ethics does not provide guidelines for the treatment of physicians by their colleagues. Indeed, some physicians are increasingly concerned about this practice, feeling that it interferes with an appropriate doctor-patient relationship and desensitizes the physician to the cost of medical care [1].

Hallway (informal or curbside) medicine is practiced by doctors, nurses and non-medical hospital staff [7]. Physicians also commonly use informal consultations concerning their patients, which has been noted to serve an important function in the practice of medicine [8,9]. Hallway medicine is characterized by easy and direct access to specialists, but also by inadequate medical record keeping and follow-up. It can entail ethical, health, legal, psychosocial and economic problems.

A study from Israel reported 198 "off the cuff" informal consultations between general practitioners and patients over a period of 6 months [10]. Israel has a new, compulsory national health insurance system, implemented in 1995, whereby the entire population receives health care through non-profit health maintenance organizations called sick funds. The Soroka Medical Center is affiliated with the General Sick Fund (Kupat Holim Clalit), which serves 60% of Israel's population.

Methods

For the purposes of this study we defined hallway medicine as informal self-referrals to hospital physicians for consultation, treatment, checkup, or any medical service that is provided by hospital colleagues for themselves or their families.

We focused on the practice of hallway medicine among hospital physicians. The objective of this study was to characterize the utilization of hallway medicine among a sample of hospital physicians at the Soroka Medical Center,

AMA = American Medical Association

a 1,000-bed teaching hospital affiliated with the Faculty of Health Sciences of Ben-Gurion University, which employs 490 physicians. A random sample of 112 hospital physicians was drawn from a list provided by the hospital administration. A total of 111 hospital physicians (99% response rate) participated in the study, which was conducted between November 1996 and May 1997. All participants completed a 39-item self-administered anonymous questionnaire that included sociodemographic data, questions on the extent and characteristics of the use of hallway medicine over the previous year and the last 3 months, satisfaction with the service provided, and attitudes towards this practice and to the possibility of formalizing hallway medicine. The items in the questionnaire were used in a previous study in Israel that assessed the phenomenon of hallway medicine among medical students [11]. The questionnaires were given to the physicians by the research assistant and administered on the hospital wards. The completed questionnaires were registered without identifying information to preserve the anonymity of the responding physician. Descriptive data were compiled and analyzed using χ^2 tests with the significance level set at $P<0.05$.

Results

Participant characteristics [Table 1]

The study population comprised 111 hospital physicians in the following specialties, grouped by hospital division affiliation: pediatrics (n=19, 18%), internal medicine (n=54, 50%), surgery (n=11, 10%), and obstetrics and gynecology (n=24, 22%). The mean age of the physicians was 42 (range 28–62 years), 47% were men and 87% were married. Residents (n=38, 35%), specialists (n=33, 31%) and senior specialists (head/deputy head of department/unit) (n=37, 34%) participated in the survey.

Table 1. Demographic characteristics of the sample population (n=111*)

Variable	No.	(%)
Gender		
Male	81	(74)
Female	29	(26)
Marital status		
Single	14	(13)
Married	97	(87)
Place of birth		
Israel	47	(43)
Eastern Europe	35	(32)
Other	27	(25)
Medical school		
Israel	64	(59)
Other	44	(41)
Specialty		
Pediatrics	19	(18)
Internal medicine	54	(50)
Surgery	11	(10)
Obstetrics & Gynecology	24	(22)
Professional status		
Resident	38	(35)
Specialist	33	(31)
Senior specialist	37	(34)

* The total varies because of missing values.

Informal self-referrals

During the study year, 91 participants (82%) reported having being asked by their colleagues to provide hallway medicine. During the 3 months prior to the study 83 physicians (77%) were approached. Forty-three physicians (52%) received 1–3 requests, 24 (29%) received 4–6 requests, and 16 (19%) 7 or more requests. More requests were made to specialists and senior specialists than to residents ($\chi^2=12.8$, df=4, $P=0.01$) [Table 2].

Most physicians (91%) agreed to provide this service to their colleagues. The explanations included "willingness to help" (n=59), "it is unpleasant to refuse" (n=18), and "it is the acceptable thing to do" (n=13). Sixteen physicians (21%) stated that they had misgivings and fears regarding the provision of this service, and 18 (23%) said that it interfered with their work routine and/or patient care.

The physicians who provided hallway medicine service also solicited it (n=77, 70%; $\chi^2=17.8$, df=1, $P<0.001$). Satisfaction with hallway medicine was very high (89% were "satisfied" or "very satisfied"). The most common reasons given for using hallway medicine were "personal acquaintance" (n=39), and "saving time and easy access" (n=31).

Table 2. Number of requests to hospital physicians over the previous 3 months, by professional status (n=83)

No. of requests	Resident No. (%)	Specialist No. (%)	Senior specialist No. (%)	Total No. (%)
0	2 (10)	3 (10)	0 (0)	5 (6)
1–3	12 (60)	19 (61)	9 (28)	40 (48)
4–6	5 (25)	5 (16)	13 (41)	23 (28)
≥7	1 (5)	4 (13)	10 (31)	15 (18)

Profile of the last request

Most of the requests were unscheduled (72%), and were for counseling or a second opinion (75%). The medical problems were acute (38%) and chronic disease (39%), and usually involved the physician's family (50%). Record keeping was carried out in 36% of the cases only and follow-up in 62% [Table 3]. The requests were time consuming, with 41% taking up to 10 minutes and 21% more than 20 minutes.

Profile of the physician who provides hallway medicine [Table 4]

Significantly more requests for hallway medicine were made to physicians born in Israel and Western Europe (n=66, 89%), graduates of Israeli medical schools (n=58, 91%), surgeons or gynecologists (n=35, 100%), specialists (n=33, 100%) or senior specialists (n=34, 92%).

Attitudes to hallway medicine

The general attitude to hallway medicine was negative (n=59, 54%), with 37% having an ambiguous attitude and 9% a positive one. However, 51 physicians (47%) were

Table 3. Profile of the most recent request for hallway medicine (n=91*)

Variable	No.	(%)
Timing		
Scheduled	61	(72)
Unscheduled	24	(28)
Purpose		
Counseling/second opinion	88	(75)
Nonsurgical treatment	10	(12)
Surgical treatment	6	(5)
Prescription	12	(10)
Medical problem		
Acute disease	35	(38)
Chronic disease	36	(39)
Counseling	21	(23)
Patient		
Physician himself/herself	31	(31)
Physicians' family	49	(50)
Physicians' friend	19	(19)
Record made		
Yes	33	(36)
No	44	(48)
Don't remember	14	(16)
Follow-up done		
Yes	56	(62)
No	24	(26)
Don't remember	11	(12)

* The total varies because of response options and/or missing values.

Table 4. Profile of physicians who provided hallway medicine (n=91*)

Variable	Requests		*P*
	No.	(%)	
Gender			
Male	66	(82)	$P=0.88$
Female	24	(83)	
Place of birth			
Israel & other	66	(89)	$P<0.01$
Eastern Europe	23	(66)	
Site of medical studies			
Israel	58	(91)	$P<0.01$
Other	30	(68)	
Specialty			
Pediatrics	16	(84)	
Internal medicine	37	(69)	$P<0.001$
Surgery/Obstetrics & Gynecology	35	(100)	
Professional status			
Resident	21	(55)	
Specialist	33	(100)	$P<0.001$
Senior specialist	34	(92)	

* The total varies because of missing values.

opposed to formalizing or regulating hallway medicine, while 42 (38%) were in favor.

Discussion

Israel's public health services are sophisticated and available to the entire population, as guaranteed by the National Health Insurance Law. Yet, articles published to date show that physicians in Israel, as in the U.S., often treat each other's health problems [3,4,7] rather than use the public primary care medical services. The results of the present study show that physicians in our hospital also use hallway medicine as a method of obtaining medical care for themselves and their families.

Our study confirms that while hallway medicine is readily accessible to physicians, it is characterized by inadequate record keeping and follow-up, and frequently interrupts the physicians' routine work in the hospital, including patient care. Ethical problems stemming from hallway medicine include the use of hospital equipment during work hours, double standards towards the employer and colleagues, the absence of documentation, the risk of medical complications, and the provision of health care at the expense of other patients.

We found significantly more requests for hallway medicine from specialists, especially surgeons and gynecologists. Most of the requests were for counseling and a second opinion. The majority of physicians in our sample expressed negative (54%) or ambiguous (37%) attitudes towards hallway medicine, but nevertheless perpetuate these services. Most were satisfied with their own personal experience with hallway medicine. This satisfaction can be attributed to the professionalism of hospital physicians. Hospital physicians are well acquainted with their hospital colleagues, but are unacquainted with their family physician and other specialists in the primary care system. Physicians can define their health problems, can identify the expert or best provider of care for specific problems, and use hallway medicine as an efficient way to resolve them. These probable explanations, together with the typically high-pressured life that most physicians lead, make hallway medicine a very appealing option for hospital physicians.

Most of the physicians (91%) were willing to provide hallway medicine to their colleagues because they were genuinely willing to help, found it difficult to refuse, and considered hallway medicine an acceptable practice. Only 9% of the physicians refused a colleague's request for consultation. Although it would be valuable to do so, this latter group could not be characterized due to its small size. The physicians who provided hallway medicine service also used it themselves ($P<0.001$). Hallway medicine can be viewed as a means of mutual aid among physicians that is carried out on a social and personal basis.

It is difficult to predict whether this culture of mutual aid among physicians would be influenced by a change in the structure of health care. Still, a formal organization of health care service within medical centers might provide physicians not only with better medical care, but with formal medical records and follow-up that would reduce the potential ethical, health, legal, psychosocial and economic problems arising from the practice of hallway medicine. There are widespread differences among medical centers around the world in terms of their organizational and university affiliation, the national health care system, and culture-based attitudes to health care. While we assume that

our results are fairly representative of the situation that prevails in Israel, the applicability of our results to other medical systems and countries is unclear.

The design of this study enabled us to describe the Soroka Medical Center experience with informal consultations. The description and analysis of this experience can serve as the basis for further research on the subject. A limitation of the study, however, is that it was based on participant self-reporting without verification from other sources.

In conclusion, hallway medicine is commonly practiced in our hospital among residents and specialists, who both provide and use this service, and their satisfaction with the practice is very high.

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Capsule

Sex, mutations, and fitness

How do sexually reproducing and asexual species deal with and take advantage of spontaneous gene mutations? Davies et al. from Edinburgh combined two approaches for estimating rates and effects of deleterious mutations and showed that there is a huge discrepancy in the results. Standard mutation-accumulation experiments, which measure effects of mutation in terms of fitness, greatly underestimate the actual rate of deleterious mutation in DNA. In experiments in the nematode *Caenorhabditis elegans* exposed to a mutagen, around 96% of deleterious mutations at the DNA level had no perceptible effect on the fitness of the organism. Thus, it appears that there may be at least two classes of deleterious mutation — those of large effect and those of small effect. This result lends support to the idea that sex evolved and is maintained by the ability of sexual populations to withstand higher genomic deleterious mutations than can asexuals. RNA viruses, which show high mutation rates in nature and have potentially large population sizes, are excellent tools for investigating adaptive evolution in asexual populations. In experimental populations of vesicular stomatitis virus, Miralles et al. from Spain show how beneficial mutations represent the best of several competing mutations (a phenomenon known as clonal interference) and quantify the rate of these mutations. Their results have implications not only for the understanding of evolution in asexual organisms, but also for the dynamics of viral drug resistance and viral eradication programs.

Science 1999;285:1745

Man will occasionally stumble over the truth, but most of the time he will pick himself up and continue on.

Winston Churchill