

Evaluation of Cost-consciousness among Primary Health Care Physicians

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Objective: To evaluate the cost-consciousness among primary health care physicians.

Design: Descriptive cross-sectional survey.

Setting: Primary health care, Bahrain.

Method: The study was conducted from 1 to 30 April 2007. Two hundred forty-nine primary health care physicians were surveyed through a self-administered questionnaire, which consisted of two parts. The first part included four questions about personal characteristics and six questions related to practice patterns. The second part was about health care costs, their attitudes regarding the costs of tests and procedures and the importance of out of pocket payments.

Result: One hundred forty-seven (79.5%) agreed that trying to contain costs was their responsibility; 114 (62%) believed that there is too much emphasis on the costs of tests and procedures. One hundred seventy (93%) thought that physicians should take a prominent role in limiting the use of unnecessary tests. Ninety (48.6%) disagreed that physicians are too busy to worry about costs of tests and procedures. One hundred forty-seven (79.5%) disagreed that the cost is only important if the patient has to pay out of pocket and 62 (33.5%) thought it was unfair to ask physicians to be cost-conscious. The cost-consciousness score was higher among family physicians and those who saw fewer patients per day. Personal characteristics did not show any association with the level of cost-consciousness.

Conclusion: The cost-consciousness among primary health care physicians was above average and was higher for those who saw fewer patients per day.

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The ever rising cost of health service is becoming a global problem and a challenge facing physicians, health planners, employees and consumers. A study done in Israel showed that cost containment attitude of practitioners was depended on doctors' awareness of costs, regardless of specialty, and whether they participated in seminars on healthcare costs or not¹. There was no difference among family practitioners, interns and gynecologists towards

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medication cost. Practitioners who play an administrative role thought that financial considerations are important to a patient's health¹.

Another study in Dublin showed that 68% agreed that the cost of medicines was an important consideration in prescribing decision; however, 88% were unaware of the actual costs². Only 33% had easy access to drug cost data and 3% were formally educated about drug costs. The costs of a supply of ten commonly used medications estimated by doctors were accurate in 12%, too low in 50% and too high in 38%. Based on that, educating of doctors about drug costs is needed and provide them with easily accessible cost information in practice².

A systematic review study showed that cost accuracy was low; level of training, year of study and specialty did not impact accuracy. The cost of items did not show impact on the accuracy or pattern of estimation. They concluded that physicians have a limited understanding of diagnostic and non-drug therapeutic costs, and need training³.

It is important to evaluate physicians' attitude towards cost and what factors influence their attitude.

A study done by Reichert et al evaluated the attitude about prescribing, knowledge of medication cost, and compared the differences among attending physicians and residents⁴. They concluded that physicians were cost-conscious (88%), but lack accurate knowledge of actual drug cost (80%) and insurance coverage of drugs. Their recommendation was to educate physicians about drug cost. The main limitation of that study was the method used to measure the cost price which is inherently distinctive. The main limitation in most studies was the small sample size⁴.

The aim of this study is to evaluate the cost-consciousness among primary health care physicians.

METHOD

Two hundred forty-nine physicians working in primary health care were included in our survey. The inclusion criterion is primary health care physician working in the ministry of health. The study was conducted in the 22 health centers.

The study was conducted by a questionnaire which consisted of two parts; the first part included four questions about personal data (age, sex, nationality, place of graduation from medical school) and six questions related to practice patterns (specialty, years since graduation from medical school, years of practice, average number of patients seen per day, previous education about cost awareness, professional roles: clinical, academic or administrative. The second part was a validated six item instrument developed by Goold et al⁵. It has two items exploring the physicians' opinion about health care costs in general, three items exploring their attitudes regarding the costs of tests and procedures, and last item addresses the importance of out of pocket payments.

All the questionnaire items were analyzed by SPSS version 15.

RESULT

The survey included 249 primary health care physicians, only 185 responded, 56 (30.3%) were general practitioners and 129 (69.7%) were family physicians.

One hundred forty-seven (79.5%) agreed that trying to contain costs was their responsibility; 114 (62%) believed that there is too much emphasis on the costs of tests and procedures and 170 (93%) thought that physicians should take a prominent role in limiting the use of unnecessary tests. Ninety (48.6%) disagreed that physicians are too busy to worry about costs of tests and procedures. One hundred forty-seven (79.5%) disagreed that the cost is only important if the patient has to pay out of pocket, and 62 (33.5%) thought it was unfair to ask physicians to be cost-conscious, see table 1.

Table 1: Attitude of Primary Health Care Physicians toward Cost-Consciousness

Item	No Response	Totally Disagree	Disagree	Not Sure	Agree	Totally Agree
Trying to contain costs is the responsibility of every physician	0	6 (3.2%)	11 (5.9%)	21 (11.4%)	59 (31.9%)	88 (47.6%)
There is currently too much emphasis on costs of tests and procedures ^a	2	8 (4.4%)	27 (14.8%)	34 (18.6%)	75 (40.4%)	39 (21.3%)
Physicians need to take a more prominent role in limiting use of unnecessary tests	2	2 (1.1%)	6 (3.3%)	5 (2.7%)	57 (31.1%)	113 (61.7%)
Physicians are too busy to worry about the costs of tests and procedures ^a	0	33 (17.8%)	57 (30.8%)	16 (8.6%)	47 (25.4%)	32 (17.3%)
The cost of a test or medication is only important if the patient has to pay for it out-of-pocket ^a	0	92 (49.7%)	55 (29.7%)	5 (2.7%)	18 (9.7%)	15 (8.1%)
It is unfair to ask physicians to be cost-conscious and still keep the welfare of their patients foremost in their minds ^a	0	20 (10.8%)	74 (40%)	29 (15.7%)	42 (22.7%)	20 (10.8%)

^a: Negatively worded items were reversed so that a higher score would mean greater cost-consciousness. Source: primary data.*Missing data

There was no significant correlation between age and cost-consciousness ($r=-.048$, $p=0.519$). Gender did not seem to play a role in determining the level of cost-consciousness as the difference between males and females was not statistically significant ($t=-1.21$, $p=0.23$). Finally, the cost-consciousness was not significantly associated with the nationality ($t=-0.92$, $p=0.36$). There was no association between cost-consciousness and the number of years since graduation from medical school ($r=-.07$, $p=0.347$).

The duration of service in primary health care was not associated with higher level of cost-consciousness ($r=-.037$, $p=0.623$). The level of cost-consciousness did not seem to have a statistical association with the training received by the participant about the subject in medical school ($t=0.25$, $p=0.81$), in family residency program ($t=1.67$, $p=0.074$), or current practice ($t=1.26$, $p=0.21$).

There was no significant difference between physicians with clinical role only and those who had clinical and academic role ($t=1.08$, $p=0.28$), as well as those who had clinical and administrative role ($t=0.37$, $p=0.71$).

Cost-consciousness scores were higher for family physicians with a mean of (21.78) compared to general practitioner (20.02) ($t=-2.69$, $p=0.01$). Negative correlation has been

found between the level of cost-consciousness and the number of patients seen by physicians per day ($r=-.187$, $p=0.011$); the cost-consciousness was higher for physicians who saw less patients per day.

DISCUSSION

In a setting with a high number of patients and growing health expenditure, it was found that the majority of physicians agreed that trying to contain costs was their responsibility. Our findings were similar to a study by Bovier et al⁶. There was a difference between our study and the Geneva study in the responses to the two statements that physicians are too busy to worry about costs and it is unfair to ask physicians to be cost-conscious and keep the welfare of their patients foremost in their minds⁶. In our study, fewer physicians disagreed with these two statements, and this might explain the lower score of cost-consciousness in our study. We did not find a difference in cost-consciousness scores between physicians who had only clinical roles and those with clinical and other roles such as administrative or academic⁶. The total score of cost-consciousness although lower, was still comparable to other studies^{6,5}.

The study showed physicians' positive attitude toward the cost of health care; it was similar to the findings in other studies^{6,7}.

In our study, gender showed no significant relationship to cost-consciousness, similar to the finding of Bovier et al⁶. In the same study, younger physicians had slightly higher scores of cost-consciousness, while our study did not reveal any significance⁶.

This is the first study in Bahrain and the Gulf region to explore the issue of cost-consciousness and the attitudes of physicians toward cost-consciousness; it included all primary health care physicians in the Ministry of Health and a response rate of 74.3%.

The study is limited because of being cross-sectional which prohibits the conclusion of causality between cost-consciousness and its correlation. The study did not include physicians in the private sector, in hospitals and other specialties.

CONCLUSION

Primary health care physicians seem to be concerned about the costs of health services and the need to contain that cost.

We advise future study on a larger randomly selected sample and to compare between physicians working in public with those in private sector. In addition, we advise to investigate the possible effects of the different physicians' roles (clinical, administrative and academic) on their level of cost-consciousness.

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