

Papers

Questionnaire survey on use of placebo

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Abstract

Objectives To gauge the frequency and circumstances of use of placebo in clinical practice and the attitudes towards its use among those who administer it.

Design Retrospective questionnaire.

Setting Two large hospitals and various community clinics in the Jerusalem area.

Participants 31 physicians working in hospital inpatient and outpatient departments, 31 head nurses working in hospital inpatient departments, and 27 family physicians working in community clinics.

Main outcome measures Self report of frequency and circumstances of, and attitudes towards, use of placebo.

Results Among the 89 respondents, 53 (60%) used placebos (95% confidence interval 49% to 70%). Among users, 33 (62%) prescribed a placebo as often as once a month or more; 36 (68%) told patients they were receiving actual medication; 15 (28%) considered that placebos were a diagnostic tool; and 46/51 (94%) reported that they found placebos generally or occasionally effective.

Conclusion Most practitioners questioned in this study continue to use placebos. Used wisely, placebos might have a legitimate place in therapeutics. Wider recognition of the practice and debate about its implications are imperative.

Introduction

How common is the use of placebos in clinical practice? From the dearth of discussion in the medical literature—almost all references to placebo from a Medline search refer to a research context—one might surmise that the clinical use of placebos is exceedingly rare. The deception involved in administering a placebo certainly raises ethical questions, and some institutions have banned its use. Yet informal discussions with colleagues, as well as first hand observation of clinical activity in various medical departments, suggest the practice still occurs. The only other report that we could locate of placebo use in a clinical context goes back a quarter of a century.¹ The authors found that the placebo was rarely (about once a year per physician) and inappropriately used.

We reappraised how frequently and in what circumstances physicians and hospital nurses use placebos in a clinical setting, how they understand the mechanisms of actions, their views on ethics, and whether they find placebos useful.

Methods

Questionnaire

We developed a questionnaire on attitudes and experience with placebos. We sought information on basic demographics, the

frequency of placebo use, the circumstances of its administration, accompanying beliefs about mechanisms of action, and ethical positions. The questionnaire was administered in Hebrew (see bmj.com for an English translation).

Recruitment

We approached three groups of physicians and nurses, who might be expected to differ in their attitudes towards the use of a placebo and its legitimacy as a therapeutic tool. Of around 110 physicians and nurses approached, 89 agreed to participate in the survey, all of whom received and returned completed questionnaires.

Senior physicians working in hospital inpatient and outpatient departments in medical and surgical specialties and subspecialties—The bulk of the work of these respondents was with inpatients, with one or two half days a week spent in the associated hospital based outpatient clinic. So as not to collect duplicate data for the same inpatient department, we included only one physician from each department. We covered all 31 inpatient departments at two major hospitals in Jerusalem and therefore included 31 respondents in this category. Ten physicians declined to receive the questionnaire.

Head nurses working in the same hospital inpatient departments as senior physicians—Here too we had 31 respondents, one per department. As the nurses are responsible for dispensing medications on inpatient wards, we included them to get a picture of what actually takes place in the hospital services. All nurses approached agreed to participate in the survey.

Family physicians working in community clinics—These respondents were recruited from a weekly gathering of about 40 family physicians working in Jerusalem. Of these, 27 agreed to receive the questionnaire and all completed it. As we expected physicians working in the same clinic to display independent prescribing habits, we allowed more than one physician from a single clinic to respond.

Statistical methods

To assess the precision of the estimated proportion of placebo use in clinical practice, we calculated 95% confidence intervals. We used Pearson χ^2 test and Fisher's exact test to test the significance of the association between two qualitative parameters. $P \leq 5$ was considered significant.

Results

Table 1 shows the composition of the group. We have summarised the data from the questionnaire under six headings.



An English translation of the questionnaire can be found on bmj.com

Table 1 Demographic and professional data for respondents to questionnaire on use of placebos

	No (%) [*]
Mean (SD) age (years)	39.4 (9.3)
Men	37 (42)
Women	52 (58)
Profession:	
Doctor	58 (65)
Nurse	31 (35)
Mean (SD) professional experience (years)	13.0 (9.7)
Primary work setting:	
Internal medicine department	32 (36)
Surgical department	30 (34)
Family medicine clinic	27 (30)

^{*}Unless stated otherwise.

Frequency—When we planned the study we assumed that the use of placebo was not widespread and would not exceed 10%. Among our 89 respondents, however, 53 (60%) admitted using a placebo (95% confidence interval 49% to 70%). The age and sex of respondent did not affect results. In total, 53% of doctors and 71% of nurses reported using a placebo. Among users, 33 (62%; 37% of the total sample) used a placebo as often as once a month or more. Differences between physicians and nurses in reported use and frequency of use of placebo did not attain significance.

Perceived therapeutic value—Of those who used a placebo, most (48 of the 51 who answered the question, or 94%) found that it was either generally (17, or 33%) or occasionally (31, or 61%) effective.

Information given to patients—Of those using the placebo, 36 (68%) tell the patient that he or she is receiving a real medicine, and nine (17%) say nothing at all. The rest either identify the placebo as such (two, or 4%) or tell the patient that he or she is receiving a non-specific medicine (six, or 11%).

Circumstances of use—We found a wide range of applications for placebo (table 2). Placebos were given in the form of saline infusions or intramuscular injections; paracetamol or vitamin C tablets instead of the ordinarily prescribed medication; sugar or artificial sweetener pills; or prepared placebo tablets. The medical conditions for which the placebos were used included anxiety, pain (including abdominal), agitation, vertigo, sleep problems, asthma, contractions in labour, withdrawal from recreational drugs, and angina pectoris (when the blood pressure was too low to allow for vasodilators). The stated value as a diagnostic tool, referred to in table 2, was to distinguish organic from psychogenic or simulated arthralgia, seizure disorder, and abdominal or other pain.

Ethical stance—Of 79 responses on ethics, only four (5%) thought that the use of placebos should be categorically prohibited. Most of the others considered placebo use conditional on

certain circumstances, such as prior experience (26, or 33%), notifying patients of receipt of a placebo (23, or 29%), or evidence from research that the placebo was effective (19, or 24%).

Perceived mechanism of action—Respondents were permitted to propose more than one mechanism of action for placebos. Of 83 responses, most (62, or 75%) attributed the effect purely to psychological mechanisms. An additional nine (11%) respondents suggested a combination of psychological and biochemical effects.

Discussion

Principal findings

We attempted to gauge the extent of placebo use in clinical work. Despite general disapproval in the medical literature,^{2,3} such use continues among 60% of our respondents. The circumstances varied but included a wide variety of clinical situations. Indeed, as only one in 20 would prohibit the placebo in all circumstances the potential for placebo prescriptions is even greater than the actual extent of use. We also found that most practitioners who use placebos claim effectiveness for the treatment in some or most cases. In light of this finding, it seems likely that the many such practitioners will continue to prescribe placebos.

Many physicians relate to the placebo as a diagnostic tool. This indicates a persistence of long discredited notions of a separation between mind and body. A placebo can assuage pain. Even in a meta-analysis that raised questions about the actual existence of a placebo effect the authors concurred that placebos can have analgesic potency.⁴ The physician who nevertheless uses a placebo diagnostically is at risk of reaching unfounded conclusions, to the detriment of his or her patients.

Strengths and weaknesses of study

Because we investigated all medical and surgical inpatient departments at two hospitals and chose only one senior physician and nurse from each, our findings are quite comprehensive. A weakness of our paper, however, is that we rely on self reports made retrospectively. This can be a problem when respondents are asked to look back and estimate the frequency of a particular behaviour. The fact that a particular respondent uses a placebo in a clinical context is not likely to be misremembered, however, even if the frequency is misjudged. Moreover, in light of the suspect moral validity of such treatment, we would anticipate that placebo use would be understated in the responses to the questionnaire. If so, our finding that placebo prescribing is a widespread practice cannot be doubted.

Previous study

In a previous study, the extent of placebo use was found to be considerably less, about one prescription a year per physician.¹ In

Table 2 Circumstances in which placebo was administered. Figures are number (percentage of those who reported use) of respondents^{*}

	Hospital based physicians	Nurses	Family physicians	Total
After "unjustified" demand for medication	8 (42)	8 (36)	7 (58)	23 (43)
To calm patient	4 (21)	9 (41)	7 (58)	20 (38)
As analgesic	4 (21)	11 (50)	5 (42)	20 (38)
As diagnostic tool	6 (32)	4 (18)	5 (42)	15 (28)
As adjunctive therapy	3 (16)	3 (14)	6 (50)	12 (23)
For non-specific complaints	0	2 (9)	7 (58)	9 (17)
To buy time before next regular dosage of medication	2 (11)	5 (23)	1 (8)	8 (15)
To get patient to stop complaining	1 (5)	2 (9)	3 (25)	6 (11)

^{*}53 respondents reported that they use placebo (19 hospital based physicians, 22 nurses, and 12 family physicians). Each respondent was permitted to cite more than one circumstance in which he or she used placebo.

our study over a third of the respondents reported using a placebo once a month or more, and nearly 60% at least once a year. Though the differing methods of the data collection render comparisons across these studies difficult, our findings suggest that the use of the placebo is increasing. The former study recorded actual prescriptions and was limited to actual placebo pills or saline, while we studied the self reports of healthcare providers, and, in certain circumstances, paracetamol and vitamin pills were also counted as placebos.

Implications

Some have advocated banning the clinical use of placebos because of the deception involved in administration and the possible harm to the doctor-patient relationship.²⁻³ Others have suggested guidelines for the proper use of placebos without violating the patient's trust and autonomy.⁵⁻⁷ Our study shows that administration of placebos for clinical purposes continues. Clearly, wider recognition of the practice, and debate about its implications, are needed. Further investigations into the extent and nature of use should be conducted, particularly in a clinical context where the placebo's effect may differ from that found in randomised controlled trials.⁸⁻⁹ Moreover, though Israeli medicine is taught and practised as elsewhere in the Western world, similar surveys in other geographical areas may reveal cross cultural differences.

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Ethical approval: Not required.

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What is already known on this topic

No study has recently attempted to assess the use of placebos in clinical settings

Placebos may be effective in some areas, but their use raises ethical issues

What this study adds

Three in five clinicians continue to use placebos

Clinicians believe that some patients benefit from placebo treatment

The role of placebo treatment, its mechanisms, and its ethics need to be the subject of wider medical education and debate

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