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The patient's perspective of placebo use in daily practice: a qualitative study

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Abstract

QUESTIONS UNDER STUDY: The use of placebo outside of randomised controlled trials raises ethical and legal issues. So far, patients' perspectives have been considered only in quantitative studies. These studies did not distinguish between pure placebos (no pharmacological effect) and impure placebos (pharmacological ingredient, but no disease-specific effect). The aim of our study was to explore patients' conceptualisation, experiences and attitudes regarding the use of placebos in daily clinical practice.

METHODS: Qualitative study with a convenience sample of 12 patients and semistructured interviews. The interviews were digitally recorded; full transcripts were obtained. The information was analysed in accordance with the qualitative content analysis method.

RESULTS: The definition of placebo given by the participants mostly matched the common understanding of a pure placebo. Most participants supposed that placebos were mainly effective in diseases in which psychological influences play an important role. Furthermore, most participants believed that placebos themselves mainly worked via psychological effects. The acceptance of a hypothetical earlier use of a placebo depended on the success of the therapy.

CONCLUSION: Patients were not aware of the differences between pure and impure placebos. Even regarding pure placebos, patients were more open than many physicians would expect. Trust between the patient and the general practitioner is an important element of the acceptance of a placebo. Appropriate communication could further increase the acceptance. Further research is needed to adapt the information given to the patient about possible placebo therapy.

Key words: placebo; general practitioners; patients' perspective; qualitative study

Introduction

In randomised pharmaceutical clinical trials, the use of placebos is quite common. However, placebos are occasionally also used in daily practice, in a hospital environ-

ment as well as in an outpatient setting [1–5]. Meissner et al., for example, showed that 45% of German general practitioners (GPs) used a pure placebo (no pharmacological active substance) [6, 7] at least once a year (median use 5 times/year) and a much higher rate was revealed for impure placebos (pharmacological ingredients but no disease-specific effect), with a median use of 20 times per year [2]. Different aspects of placebo use have been addressed in several studies in the context of randomised controlled trials (RCTs) [8–13]. Recent studies have also focused on the use of placebos outside RCTs, mainly assessing quantitative aspects [1–3] or discussing the legal and ethical controversy about the use of a placebo [14–18]. In these studies mainly the perspectives of health professionals, researchers or ethicists have been assessed [4, 5, 14, 16, 19]. Most physicians agreed that placebos played an important role in daily practice, for example, to calm the patient or as a supplemental therapy [4]. But their use was associated with ethical and legal uncertainties, especially regarding deception and lack of informed consent.

Interestingly, only a few studies have addressed the patient's perspective [15, 20–25]: three studies were qualitative studies on the perception and conceptualisation of placebos in RCTs [23–25] and all the other studies were based on cross-sectional questionnaires. Lynøe [15] et al. provided patients with a case vignette of a patient expecting penicillin and a physician who did not see any medical reason for it. In this situation, a majority of patients would accept the physician using a placebo. A Swiss study [21] showed that patients were open to placebos, but wanted to be well informed. A study in New Zealand [20] found that patients were amenable to the use of placebos, but also revealed a lack of knowledge about the placebo effect and that many patients believe that the placebo effect depends on personality traits.

The aim of our study was to explore patients' conceptualisation, experiences and attitudes regarding the use of placebos in daily practice. Furthermore, we were particularly interested in the conditions under which patients would accept the use of a placebo in daily practice. In our study we used the term placebo for both pure and impure placebos.

Methods

The Research Ethics Committee of the Canton of Zurich, Switzerland, approved the study (KEK-StV-Nr 69/09). All information was treated confidentially. Informed consent was given verbally (and audiotaped) after participants were informed about the study aim and study protocol. The Ethics Committee did not oppose this procedure to obtain informed consent.

Sampling

We used the consolidated criteria for reporting qualitative research (COREQ) to organise and report our results [26]. For the recruitment of our study participants, we asked the GPs participating in our earlier study [27] to pin up an information sheet in their general practice. All patients over 18 were eligible and prior experience with placebos or knowledge about placebos was not mandatory. In accordance with our first study, we chose a convenience sample of 12 participants. Interested patients were included in the study consecutively; the study's purpose and design were explained before the participants gave their consent for participation. The participants were specifically asked not to inform themselves about placebos before the interview, since we were interested in their individual, unprejudiced opinions about placebo. No interested participants had to be excluded.

Interviews

On the basis of our literature search (databases: Medline[®], Embase[®]; search terms, or MeSH/Emtree terms where available: "placebo", "concept/conceptualisation", "ethics", "general practitioners", "qualitative study", "patients", "expectations"), we developed a semistructured interview guide with 14 open-ended questions. A preliminary interview guide was pilot-tested with two patients to ensure that the questions were clear and comprehensible. The interviews were conducted between April and June 2009 at the participants' workplace or home by one author (HT); in all interviews no additional person was present. Digital records were obtained and field notes were taken during the interviews. During the interview it was confirmed – with further explanations where necessary – that the participants understood the questions correctly. The duration of the interviews was between 20 and 35 minutes (mean 26.5 minutes, median 25.2 minutes).

Questions

The participants were asked about their definition of a placebo, their attitudes towards placebo therapies (associations, moral dilemma with deception, conditions for placebo use) and experiences with a placebo therapy. Furthermore, two short case descriptions were orally presented:

First case

"Assume that you are suffering from a fatal condition where no specific therapy exists. Should your physician prescribe medication anyway, even though its effect is disputable?"

Second case

"Imagine you find out that your physician has treated you with a placebo. Your physician was fully aware of the chosen therapeutic option, but did not clearly communicate his decision. What is your reaction and how do you feel about this physician?"

"Would you react differently if the chosen treatment had worked?"

Analysis

The interviews were transcribed literally (by HT) and subsequently analysed in accordance with the qualitative content analysis method [28]. Qualitative content analysis is a method with categories as the main instrument; the method allows both deductive and inductive category building. In a first step, categories can be built deductively in accordance with a theoretical framework; further categories can also be built during analysis where needed, allowing an inductive approach. We established an initial coding system in accordance with the themes in our interview guide, including headings and subheadings which we composed before analysis. During the coding process with Atlas.ti-software (version 5.0, Scientific Software Development, 2004) the categories were slightly modified and supplemented. The final coding system is listed in table 1. First, the coding process was undertaken independently by three authors (HT, CH, RF). HT is male, CH and RF are female; HT and RF were senior medical students, CH is a sociologist (PhD) and post-doctoral researcher. RT is a male clinician (GP) and postdoctoral researcher, NB is a female physician and postdoctoral researcher. In the case of a disagreement with the coding system, the three coders discussed the disagreement and consulted a fourth researcher (RT) where necessary. After the coding process, a synthesis of the findings was compiled, with discussion of the results with a fourth and fifth researcher (RT, NB).

Results

Participants

After giving informed consent, 12 patients were included in our study, of whom 5 were female and 7 were male. The average age was 64 years (range 38–76 years); the general practices that recruited patients were in Zurich, so all participants lived in the Canton Zurich. Six out of 12 were feeling healthy at the time the interview was conducted. Details about the participants are shown in table 2. The results are presented in accordance with the hierarchical final version of our categorising system. The numbers of participants giving a certain statement are mentioned in order to quantify and weigh different statements.

Definition and association of placebo

All participants defined placebo quite similarly, as a substance without any pharmacological active ingredient^I, which fits the definition of a pure placebo. We asked the participants what they associated with the term placebo. Eight out of 12 (66.7%) stated that the term was neutrally associated^{II}; 3 (25.0%) of the participants had a positive

association, 1 participant (8.3%) stated a negative association.

^I“... a placebo is a drug without any pharmacological substance in it, but it helps the patient who believes in it.” (P7, m, 76y.)

^{II}“Placebo sounds neutral to me, since it has either no or a positive effect...” (P8, m, 66y)

Conceptualisation of placebo

All participants believed that placebos were effective in that they could ameliorate symptoms^{III}. Nine out of the 12 participants (75.0%) stated a belief in an association between body and mind; some related their own experiences with examples of the perception of side effects (“nocebo”) rather than of the experience of a placebo^{IV}.

^{III}“Body and mind are a unit. If the mind believes in something it may have positive or negative effects on the body.” (P5, m, 67y)

^{IV}“... from my own experience I think a placebo can have the same effect as a real drug. I know that... because when I read the side effects in the prescribing information, I will have those symptoms.” (P1, f, 75y)

Placebo effect depending on patient or disease characteristics

We asked the participants whether they believed the placebo effect was related to certain patient or disease characteristics.

Patient characteristics

Ten of the 12 participants (83.3%) believed that a placebo effect depended on specific patient characteristics; 2 (16.7%) were not completely sure. Three (25.0%) believed

that children were more susceptible to a placebo effect than adults; 3 out of the 12 participants (25.0%) stated that the placebo effect might be higher in psychiatric patients, in patients who were psychologically vulnerable^V, or in less intelligent patients. Two participants (16.7%) believed that patients expecting drug therapy when consulting a GP might be more susceptible to placebo.^{VI}

Disease characteristics

Ten participants (83.3%) believed that diseases in which psychological factors play an important role were more prone to a placebo effect than, for example, diseases that were clearly somatic, such as cancer or a bone fracture. The participants often used terms such as “light disease” and “heavy disease” without a clear indication of how they precisely differentiated the two groups^{VII, VIII}.

^V“I think a person who is psychologically vulnerable is more likely to react to a placebo.” (P9, m, 68y)

^{VI}“(…) probably in patients who are expecting a drug therapy from the physician.” (P12, f, 65y)

^{VII}“If I am severely ill, for example, if I break my arm, I’d expect that a placebo won’t heal the fracture. So in real diseases there will probably be no influence, except when the disease has a psychological aetiology.” (P11, m, 66y)

^{VIII}“I would expect that a placebo can help in diseases which are not severe and where a spontaneous cure could be expected.” (P12, f, 65y)

Use and acceptance of placebos

A question in the interview guide addressed participants’ earlier experiences with placebo treatments. To avoid confusion, we supplied the following definition of a placebo

Table 1: Categorisation system in the content analysis.

| A Conceptualisation of placebo | |
|--|---|
| A1 | Definition of placebo |
| A2 | Association – how do the participants associate the term “placebo” (positive/neutral/negative)? |
| A3 | Reaction to placebo depending on patient characteristics |
| A4 | Reaction to placebo depending on disease characteristics |
| B Use and acceptance of placebo | |
| B1 | Participants experiences with placebo (pure, impure) |
| B2 | Placebo acceptance |
| B3 | Moral dilemma – deception vs informed consent |
| B4 | Diction – how should a general practitioner communicate placebo therapy to his patients? |
| B5 | Placebo therapy in the case of no therapeutic options |
| B6 | Reaction to a former placebo therapy |

Table 2: Characteristics of participating patients.

| | Sex | Age | Education and profession | State of health |
|----|-----|-----|---|--------------------------|
| 1 | F | 75 | Professional school, retired | Cardiovascular disease |
| 2 | M | 74 | University, retired prosecutor | Healthy |
| 3 | F | 42 | Higher vocational diploma, merchant | Pulmonary disorder |
| 4 | M | 66 | University, teacher | Healthy |
| 5 | M | 67 | University, businessman | Urological disease |
| 6 | F | 38 | Higher vocational diploma, businesswoman | Healthy |
| 7 | M | 76 | Professional school, retired, travel agent | Healthy |
| 8 | M | 66 | University, business consultant | Healthy |
| 9 | M | 68 | University, retired, former businessman | Ophthalmological disease |
| 10 | F | 67 | Professional school, retired, former secretary | Healthy |
| 11 | M | 66 | Higher vocational diploma, retired, businessman | Healthy |
| 12 | F | 65 | Professional school, businesswoman | Rheumatic disease |

before further questions were asked. We used our own definition, which was based on discussions in the literature, mainly on two papers [7, 29]:

“A placebo is a pill or procedure that does not influence the health impairment directly, but indirectly, for example through psychosocial mechanisms effecting improvement.”

Six participants (50.0%) stated that they had experiences with a placebo (vitamin C was given as example when the question was not clear enough), such as consumption of vitamin C during influenza season^{IX}. Four of these 6 participants reported positive experiences whereas the two others were unsure about the effect. Four of the 12 participants (33.3%) mentioned positive experiences with homoeopathic or phytotherapeutic agents. Seven of the 12 participants (58.3%) stated that the placebo effect was probably part of the effect of homoeopathic agents, and all 4 participants with experiences of phytotherapy believed in a true biological effect^X.

^{IX}“My wife and I, we occasionally consume vitamin C, especially during the winter season; I thought to strengthen my resistance against viral infections with it. But I'm not so sure whether it works, since I've never observed it carefully enough” (P9, m, 68y)

^X“I tried Echinacea once; I guess it has an effect, but just a little one. I don't know whether this is a placebo.” (P3, f, 42y)

Conditions for the use of placebo and the moral dilemma

The participants were asked under what conditions they would accept placebo therapy. Two of the 12 participants (16.7%) would not accept placebo therapy at all, mostly because they felt they were not being taken seriously if a placebo treatment was prescribed for their symptoms^{XI}. The remaining 10 participants (83.3%) would accept placebo therapy if the physician-patient relationship was solid and trustful^{XII, XIII}. Concerning deception, there were various attitudes: 7 out of the 10 wanted deception, since they were afraid that they would miss the effect if they knew that a placebo and not a pharmacologically active substance was given to them^{XIV, XV}.

We asked the participants for their opinion about the moral dilemma of giving a patient a placebo and concealing its true identity. Furthermore, we asked what information should be given if a placebo treatment were to be prescribed. The two participants not accepting the placebo therapy insisted on full information and did not accept any deception^{XVI}. Ten of the 12 participants (83.3%) were very ambivalent, particularly between their rights and will to get all information about current therapies and their fear of losing the effect if the placebo were given without deception^{XVII, XVIII}. Most participants stated they preferred general information, such as “this therapy has helped others in the past”.

^{XI}“In this case I would actually think he is fooling me!” (P8, m, 66y)

^{XII}“...[the acceptance of placebo therapy] depends on whether or not I trust my GP. If I were to go to an unknown physician for the first time and receive a placebo, I would be irritated by that.” (P10, f, 67y)

^{XIII}“My acceptance [of placebo therapy] depends on the trust I have in my GP. If I imagine my current GP I don't think I have any problem at all with getting a placebo therapy.” (P8, m, 66y)

^{XIV}“I can imagine getting a placebo, but in that case the GP should deceive me.” (P5, m, 67y)

^{XV}“If I don't know that it is simply sugar and I believe in the drug and my GP is telling me to take it, then I will take it. I'll take everything that my physician tells me to take.” (P7, m, 76y)

^{XVI}“I want to know everything, exact details and why he thinks this therapy would be helpful...” (P2, m, 74y)

^{XVII}“I would not expect an open-label administration of placebo, since it would not work anymore in that case.” (P6, f, 38y)

^{XVIII}“I am not so sure, I am afraid if I get too much information the therapy won't work; if I get too little information I would probably feel misled.” (P3, f, 42y)

Case presentations

In the first case, 2 out of the 12 participants (16.7%) did not approve of the prescription of a placebo under any circumstances^{XIX}. The remaining 10 participants (83.3%) would approve the use of a placebo, depending on different factors. Some of them would try a placebo therapy in the case of a “light” disease, defining this as a disease that most likely would disappear independently of a therapy. But most of the participants would rather consider a placebo treatment in the case of a hopeless situation^{XX, XXI}.

^{XIX}“No, I do not accept that... if my physician does prescribe a medication, I want one with a specific effect.” (P1, f, 75y)

^{XX}“The acceptance of the therapy depends on the severity of the disease. I mean if I am seriously ill and I don't see any chances for myself, I would be ready to try everything possible.” (P10, f, 67y)

^{XXI}“For me it is crucial whether the disease is severe or not, it particularly depends on the fact of whether the disease will get worse by waiting or not.” (P5, m, 67y)

In the second case, 7 of the 12 participants (58.3%) would have accepted their physician's decision, independently of the result. Two of the participants (16.7%) would not accept this from their physician and would immediately choose a different physician. The remaining 3 participants (25.0%) would have different acceptance depending on the result of the therapy, but trust in the physician would have been distorted. Sometimes even self-confidence seemed to be distorted^{XXII}.

^{XXII}“If it really would have worked... well... then I actually have to ask myself: what kind of an idiot I am to be deceived by a placebo?” (P2, m, 74y)

Discussion

For the first time, the conceptualisation and attitudes of patients regarding placebo therapy in daily practice, outside of medical research, has been assessed with a qualitative approach. Interestingly, within a solid and trustful patient-physician relationship the majority of participants would accept a placebo therapy.

Definition and concept of a placebo

The definitions given and the rather neutral or positive associations of the term placebo are consistent with an earlier Swiss study in 414 patients, in which similar definitions were given and the term was mainly neutrally (63%) or positively (23%) associated [21]. Furthermore, GPs in our first qualitative study [27] and patients in this study seemed to have similar definitions of placebo in mind, reflected in similar wording to describe the term “placebo”. Different associations of the term placebo were found in a French study [22] where the majority assessed placebo as negative, which could have been influenced by the different cultural or language background.

All participants believed that symptoms could improve with a placebo. Most participants stated that placebos were mainly effective in diseases in which psychological influences played an important role. This might be explained by an earlier statement in which most participants supposed that placebos themselves mainly worked via psychological effects. Some participants postulated a “placebo-personality”; the participants mainly expected psychologically vulnerable patients to be more prone to a placebo effect than others. These findings are consistent with earlier studies with patients [15, 20–25]. In a cross-sectional survey of 300 patients [22], 91% of the participants believed that the placebo effect depended on the patient’s personality and 83% stated that patients responding to a placebo were psychologically vulnerable. The conceptualisation of the disease played an important role in the acceptance of a placebo. In a qualitative study, Bishop et al. [23] interviewed participants in a trial addressing irritable bowel disease. The authors showed that a holistic approach to the aetiology of the symptoms resulted in a higher acceptance of (possible) placebo therapy.

Use and acceptance of a placebo therapy

Interestingly, even though most of the participants stated that they believed that placebo therapy played a role primarily in “light” diseases, most of the participants would consider taking a placebo in the case of a severe disease if a specific therapy was lacking. This finding reflects the fact that people were maybe more likely to accept placebos in situations in which no effective therapy could be offered. Lacking therapeutic options as reason to use placebo as well as, for example, homeopathic approaches is a well-known phenomenon in medicine [30]. Kaptchuk et al. showed that hope and expectations might be important factors in the placebo concept as well [25]. Some ethicists regarded the use of placebo in a clinical situation where no specific treatment was available as ethically justifiable [31].

Nevertheless, under certain circumstances there was acceptance of the use of placebo in daily practice; the trust in a good physician-patient relationship played the most important role in this acceptance. This has various implications. The participants expected their GP to know the patient and to believe personally that the patient would benefit from the treatment. Furthermore, the disease might not be impaired by the placebo (or by omitting the non-placebo therapy). The higher acceptance of a placebo with a positive outcome than an adverse outcome might be ex-

plained by this fact. This has also been shown in an earlier study where the acceptance of a placebo was higher in the case of a beneficial outcome of the disease [32]. Fässler et al. showed that patients’ acceptance of placebo use was higher if the prescribing physician himself believed in possible treatment effects [21]. Linde et al. discussed – with special regard to homeopathy – whether this could still be regarded as a placebo therapy if the physician was convinced of the treatment effect [33].

Communication in the case of placebo use

Only a minority (2/12, 16.7%) would not accept a placebo at all. But even the patients that were open to placebo use under certain circumstances would prefer an indirect explanation (e.g. “this therapy has helped other patients in the past”) to a direct notification that they would receive a placebo. Unfortunately, we were not able to find factors helping to distinguish the placebo-acceptors from the placebo-deniers. Different attitudes towards involvement in clinical decisions have been shown in hospital patients as well as in patients of general practices [34, 35] and both these studies recommended individual assessment of patient preferences.

Strengths and limitations

Because of the qualitative design, quantitative conclusions cannot be drawn. Our group of 12 participants was very small and had limited geographical and cultural variation. There might be an additional selection bias due to the recruitment process: firstly, more patients with higher confidence in their GPs could be recruited to participate in our study; secondly, the announcement of the study patients could have selected patients who had some idea what a placebo was. Also the patients might have had different awareness of the various contexts where placebos are used and this might have influenced their answers. Furthermore, our study sample was well-educated, older than the general population and from urban regions: this limits generalisability of the study results. Future research is needed to confirm our findings with a better demographic balance of the study population. Nevertheless, in our study we found some well-differentiated thoughts of patients about the use of placebo. We reached a good saturation with the number of interviews as the coding system was not further adapted for the last four interviews and in the last two interviews all statements (e.g. definition of placebo) were similar to earlier interviews.

Conclusion

Patients were not aware of the differences between pure and impure placebos, but even regarding pure placebos, patients were more open than many physicians would expect. Trust between the patient and the GP is an important element for the acceptance of placebo therapy. Appropriate communication could further increase acceptance. Further research is needed to adapt the information given to the patient about possible placebo therapy.

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