**Supplementary Material**

**What should clinicians tell patients about placebo and nocebo effects?**

**Practical considerations based on expert consensus**

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# **Elaboration on the Delphi Methods**

Expert group

A 3-step modified Delphi study was conducted among a panel of interdisciplinary experts by invitation, as part of the 2nd Society for Interdisciplinary Placebo Studies (SIPS) conference. Of the 30 invited speakers at the conference, 27 internationally recognized placebo researchers (i.e. the authors of this paper) agreed to take part in the panel; the three who chose not to participate indicated that their research topics were not sufficiently related to the subject of the Delphi study. The remaining 27 invited experts completed the survey, with 7 being unavailable to participate in one or more steps of the 3-step approach due to personal circumstances (n=25 participated in the open-ended survey, n=23 participated in the closed-ended survey, and n=23 participated in the expert meeting). A workgroup (AE and SM as part of the local organizing team of the conference together with the following SIPS board members CB, LC, JG, KJ, JK, IK, and LV) prepared the surveys and organized the expert meeting.

The 27 participants were from 11 different countries with an average age of 49.4 (SD 9.1), and 48% were female. The participants had on average 14.8 years (SD 8.6) of research experience in the field of placebo and nocebo studies or related areas since their doctoral degree.

Finally, the expert panel consisted of leading experts in the field with varying clinical and non-clinical backgrounds (see the manuscript for details), including medical specialists, psychologists, science communication and medical ethics. Interdisciplinary viewpoints about communicating information on placebo and nocebo effects, and training healthcare professionals, is crucial, as this may lead to new insights, and input from various fields is essential in developing recommendations for clinical practice. For instance, ethical and psychological issues should always be part of the considerations about information provision to patients. Moreover, the Delphi panel consisted of experts that are currently leading in placebo research, to ensure that the consensus and recommendations are based on the most recent insights in the field.

Modified Delphi study

In **Supplementary** **Figure S1** the steps of the modified Delphi study are shown. The 3-step modified Delphi study[[1]](#footnote-1) consisted of an open-ended survey (round 1), a closed-ended survey (round 2) and a final expert meeting during the SIPS conference (round 3). The final face-to-face meeting was added to the Delphi method to facilitate nuanced discussion of possibly differing opinions of the survey items. The Delphi study was based on existing literature as well as the previous recommendations about informing patients about placebo and nocebo effects in clinical practice[[2]](#footnote-2). Following the line of these recommendations, the surveys were subdivided into three parts: A) informing patients about placebo effects, B) informing patients about nocebo effects, and C) training clinicians in how to communicate about these effects. Panel members were asked to fill in the surveys using online survey software (Qualtrics).

*Round one: open-ended survey.* A first survey was sent to the panel members to generate content for expert consensus. Topics for the questions asked in this survey were based on a review of the literature concerning the relevant empirical evidence on placebo and nocebo effects (see **Supplementary Table S1** for an overview of the survey questions). More specifically, questions concerned the content and manner of information that should be communicated to patients in clinical practice and the to-be-expected benefits and disadvantages of communication about these effects (e.g., what, when, how and why should we communicate about placebo and nocebo effects?). In total, the open-ended survey consisted of 21 open-ended questions (7 in all parts, labelled A1-A7, B1-B7 and C1-C7, respectively).

Answers provided in the first survey were first transcribed verbatim into individual items (see **Supplementary Table S2** for the pre-transcription responses of the panel members). Similar individual items were then aggregated and rewritten into a single item. This resulted in a total of 290 items that formed the basis for the closed-ended survey (Delphi round 2). These items were then checked by all members of the workgroup for relevance, readability, and clarity, and further reduced to 158 items, which were subdivided into the 3 different parts (between 45-58 items for each part). The reduction to 158 items by the workgroup included further aggregation of similar items and elimination of topics with lower priority (see **Supplementary Table S1** for more details).

*Round two: closed-ended questionnaire.* For the closed-ended questionnaire, the total set of 158 items generated by the first survey were ranked on a 0-10 slider scale with two endpoint labels (0 = “totally disagree” and 10 = “totally agree”). In addition, an open-ended question was added to every item for additional comments (see **Supplementary** **Table S3 and S4** for a complete overview of the survey items). The mean and standard deviation were calculated for each item. High agreement with an item was defined as a mean score ≥ 8.0, and high disagreement with an item was defined as a mean score ≤ 2.0 on the 10-point scale.

*Clinical expert meeting:* During the 1-day pre-conference clinical expert meeting (July 7, 2019, Leiden, the Netherlands), high-agreement items of the second Delphi survey were discussed as input for the recommendations. The meeting was audio-recorded, and minutes were taken. Similar to the methods used in the previous expert consensus paper[[3]](#footnote-3), survey items with high agreement (a mean score ≥ 8.0 on the 10-point scale) or disagreement (a mean score ≤ 2.0) were discussed during the clinical expert meeting. In addition, survey items with ‘moderate agreement’ (i.e., nearing high or low agreement, as evidenced by a mean between 7.5 and 8.0) or disagreement (mean between 2.0 and 2.5) were discussed as potential input for the recommendations. Results of items with more mixed levels of agreement (scores between 2.5 and 7.5) were only briefly discussed during the meeting. Based upon the survey results and discussion during the meeting, the recommendations were developed.

# **Elaboration on the Delphi survey and expert meeting results**

In the sections below, we describe the main results of the surveys and expert meeting, i.e., how to communicate to patients about placebo effects and nocebo effects and how to train clinicians in the communication about these effects. We particularly focused on the results and discussion of those survey statements with high agreement during the expert meeting. Below, each survey part is discussed separately.

Part A: Informing patients about placebo effects

C*losed-ended Delphi survey (Round 2 – Part A).* Statement topics in this part included items about the type of information that should be provided about placebo effects (e.g., content, level of detail), which terminology should be used (e.g., placebo effects, or alternative terminology), and the modality in which this information should be disclosed to patients (e.g., online or face-to-face) (see **Supplementary Table S3** for details). Content-related items that generated high agreement (*M* ≥ 8.0) were the following: patients should be informed that placebo effects are genuine and beneficial effects (A1.3.), and that they represent a genuine reaction of the body that promotes healing and treatment response (A1.4.). There was also high agreement that information provided to patients should be individually tailored and dependent on the context (A1.9.), and that provided information should be evidence-based and not overstate the size of placebo effects (A1.16.). No items reached agreement regarding the manner in which patients might be informed about placebo effects. For terminology, it was agreed that using the term ‘placebo effect’ is acceptable, provided that it is explained well (A5.5.).

*Expert meeting (Round 3 – Part A).* There was relatively high consensus regarding the content of the information about placebo effects. Experts agreed during the meeting with the high consensus items generated by the survey. Moreover, they agreed that patients should be informed that placebo effects are inherent to most treatments, and can be experienced by most people.In addition, there was consensus during the meeting that an outline of the neurobiological and psychological mechanisms of placebo and nocebo effects could be helpful. At the same time, experts emphasized that the information should be tailored to specific patients, conditions, and circumstances. Finally, experts considered it important that the information must be evidence-based, and that patients should also be informed about the limits of placebo effects (e.g., placebo effects are likely to affect symptoms, but not the progression of a disease).

Regarding the manner of informing (e.g., verbally during consultations, leaflets etc.), there was consensus during the meeting that a specific module or a set way of information provision was not desirable. Instead, experts considered it important that the content and manner of delivery should be tailored to the needs of the specific patient and context. For example, choosing the timing of when information should be delivered (e.g., during prescription of a new treatment), and the content of the information should depend upon the knowledge and background of the patient (e.g., education level, attitude towards medical treatment). Regarding terminology, experts agreed that in most situations the term placebo effect is still the most suitable term, provided that the term is explained carefully and patients are well informed (for information on what other terms were considered see the **Supplementary Tables S3 and S4**). When explaining mechanisms, experts agreed that it may be preferable to adopt additional terminology (e.g., expectancies). For example, if the information about the placebo effect is difficult to understand for the patient, the healthcare professional might use slightly different explanations, for example that patients might improve due to factors other than the treatment itself, such as positive expectancies regarding treatment outcomes.

Part B: informing patients about nocebo effects

*Closed-ended Delphi survey (Round 2 – Part B).* In line with the statements about placebo effects (see previous section), the statements for nocebo effects focused on the content and manner of the information, particularly which type of information should be provided about nocebo effects, what terminology should be used and the modality in which this information should be provided to patients. In the survey, a single item reached high agreement (*M* ≥ 8.0), i.e. whether and what patients should be told about nocebo effects depends on the context (e.g., the patient’s comprehension level, the specific condition and treatment proposed) (B1.6.). Several other items reached moderate agreement, i.e. patients should receive general information about the nocebo effect (B1.1.) and that the information should be tailored to the individual needs of a health care center or patient (B4.7.). There was also moderate agreement that using the term nocebo effect is acceptable (B5.2, B 5.3, B.5.8), but that a separation between adverse events of a treatment and actual nocebo effects should be made (B5.2); see also **Supplementary Table S3**).

*Expert meeting (Round 3 – Part B).* Just as there was for placebo effects, there was consensus during the meeting regarding the content of the information about nocebo effects. Experts considered it important that nocebo effects are explained to patients and that patients receive general information about the nocebo effect; however, this should be done carefully in a manner that, for example, does not increase anxiety or that is not perceived as blaming patients for negative treatment effects (i.e., side effects). To do so, it is very important that the information provided matches the context (e.g., the patient’s comprehension level, the specific condition and treatment).

Regarding the manner in which information is provided, experts emphasized that it is important to adapt disclosure processes to the specific circumstances of the healthcare center and the patient. This relatively strong emphasis on the need to customize information about nocebo effects is a consequence of the delicate balance between following the ethical guidelines of informed consent, according to which patients need to be fully informed about risks and side effects of treatments as well as the possibility of treatment failures, and at the same time, preventing and reducing nocebo effects as much as possible. Regarding terminology, experts agreed (in line with the consensus for placebo effects) that clinicians should use the term nocebo effects, particularly since this can be easily explained to the patients as the counterpart of the ‘placebo effect’, which might help patients to understand the underlying mechanisms. However, experts also emphasized the need for a clear distinction between adverse events of a treatment and actual nocebo effects. Moreover, they agreed that information about side effects should be presented in such a way that nocebo effects are minimized.

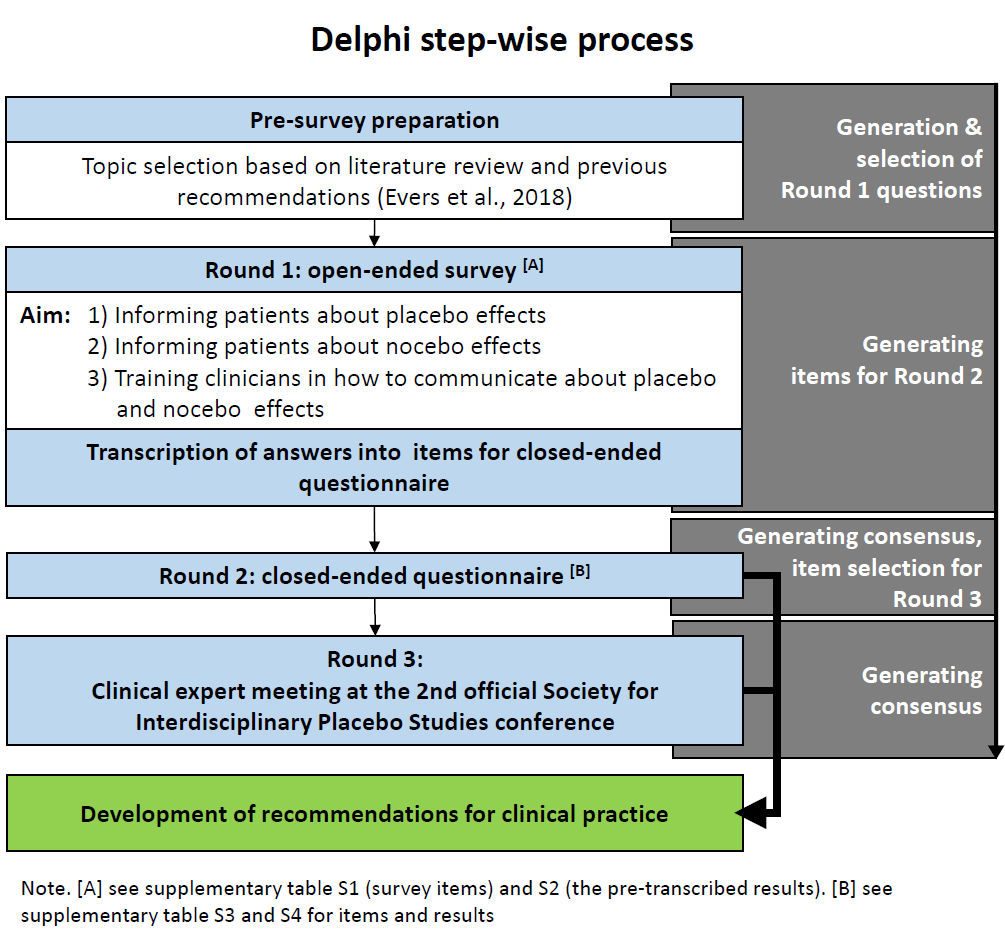
Part C: Training clinicians in communicating about placebo and nocebo effects

*Closed-ended Delphi survey (Round 2 – Part C).* The statements related to training clinicians in how to communicate about placebo and nocebo effects focused on the content of information that should be provided during such a training, and the manner in which training should be provided (e.g., length of the training, and time-point during career). Regarding content, there was high agreement that clinicians should be taught about the mechanisms by which placebo and nocebo effects are likely to occur (e.g., classical conditioning, social learning, expectancies; C1.1.; C2.1.), about the neurobiological and physiological underpinnings (C2.1.; C2.2.), and about variations in effect sizes and duration (C1.3.; C2.3.; C2.4.) of placebo and nocebo effects. There was agreement that relevant ethical issues should be included for clinicians (C1.4.; C2.5.) and that clinicians should be taught about the evidence we have for placebo and nocebo effects (C1.6.; C2.9.). Experts moreover agreed that an emphasis should be placed on what clinicians can do to maximize placebo effects and minimize nocebo effects (i.e., strategies they can employ to do so; C1.5.; C2.8). Finally, experts agreed that information should be provided that placebo effects can also work when people know about the effect (C1.7), and that the importance of inter-individual differences in nocebo effects should be emphasized (C2.7). Moreover, there was consensus that training should emphasize that different patients might need different information (C4.7).

Regarding the format of training in communicating about placebo and nocebo effects, there was consensus that training should consist of multiple modules (i.e., modules for *all* clinicians, as well as modules relevant to specific medical conditions or specialists; C4.1.) and should be calibrated to match the educational level of the clinician (C4.4.). There was high agreement that written information alone would not be sufficient (C5.6.) and that training should preferably be embedded within medical school or other standard education (C6.7.; C7.1.; C7.3.).

*Expert meeting (Round 2 – Part C).* In general, there was consensus during the meeting for the survey items that generated high agreement (see Round 2). It was moreover agreed that training content should cover the wide range of differences in placebo and nocebo effects between both individual patients, and between different conditions. Finally, experts agreed that medical ethics education regarding placebo and nocebo effects should be a routine part of clinical training. It was discussed that that patient groups should have access to the same information given to clinicians in their training, adjusted to the patients’ needs and cognitive capacities. Regarding the format of training, there was agreement on the need for multiple modules and training methods (e.g. face-to-face and online), and that they should optimally be embedded in medical school or other standard education. However, experts concluded during the meeting that more research is needed and that empirical testing of the efficacy of training methods is essential.

**Supplementary Figure S1.** Overview of the modified Delphi study methods and the steps taken to develop recommendations for informing patients about placebo and nocebo effects, and for training clinicians to communicate about these effects.



**Supplementary Table S1.** First Delphi survey: open-ended questions about A) informing patients about placebo effects, B) informing patients about nocebo effects and C) training health care providers in providing information about placebo and nocebo effects.

|  |  |
| --- | --- |
| A. Informing patients about placebo effects | |
| A1. | What should patients be told about placebo effects?  *When describing what patients should be told, please also indicate how detailed you think the information that is provided to patients should be. For example, should patients be provided with general information only? Should they be told about possible mechanisms of placebo effects, or the neurobiology?* |
| A2.a | What benefits may be gained from informing patients about placebo effects?  *Please provide at least two potential benefits, as well as a short elaboration on why these are to be expected.* |
| A3.a | What risks or disadvantages may be associated with informing patients about placebo effects?  *Please provide at least two potential risks or disadvantages, as well as a short elaboration on why these are to be expected.* |
| A4. | In what manner might patients be best informed about placebo effects in medical healthcare (e.g., letters, brochures, oral information by a doctor or other healthcare provider)? |
| A5. | Should the term ‘placebo effect’ be used when communicating about these types of effects?  *If the term ‘placebo effect’ should be used in your opinion, please elaborate on the reasons why. If you do not think the term should be used, please indicate why not.* |
| A6. | Are there other terms that might be preferable to use when communicating about placebo effects?  *Please offer preferred alternatives to “placebo effect” (e.g., expectancy)* |
| A7.a | Are there any potential patient groups or other populations that should not be informed about placebo effects?  *If so, why should they not be informed? If you believe information about placebo effects might apply to all patient groups, please briefly elaborate on why you think so.* |
| B. Informing patients about nocebo effects | |
| B1. | What should patients be told about nocebo effects?  *When describing what patients should be told, please also indicate how detailed you think the information that is provided to patients should be. For example, should patients be provided with general information only? Should they be told about possible mechanisms of nocebo effects, or the neurobiology?* |
| B2.a | What benefits might be gained from informing patients about nocebo effects?  *Please provide at least two potential benefits, as well as a short elaboration on why these are to be expected.* |
| B3.a | What risks or disadvantages might be connected to informing patients about nocebo effects?  *Please provide at least two potential risks or disadvantages, as well as a short elaboration on why these are to be expected.* |
| B4. | In what manner should patients be informed about nocebo effects in medical healthcare (e.g., letters, brochures, oral information by a doctor or other healthcare provider)? |
| B5. | Should the term ‘nocebo effect’ be used when communicating about these types of effects?  *If the term ‘nocebo effect’ should be used in your opinion, please elaborate on the reasons why. If you do not think the term should be used, please indicate why not.* |
| B6. | Could there be other terms that might be more preferable to use when communicating about nocebo effects?  *Please offer preferred alternatives to “nocebo effects” (e.g., expectancy)* |
| B7.a | Are there any potential patient groups or other populations that should not be informed about nocebo effects?  *If so, why should they not be informed? If you believe information about nocebo effects might apply to all patient groups, please briefly elaborate on why you think so.* |

**Supplementary Table S1.** FirstDelphi survey: … (continued 2/2)

|  |  |
| --- | --- |
| C. Training health care providers in providing information about placebo and nocebo effects | |
| C1. | What aspects of placebo effects (and their mechanisms) should be included when training health care providers in providing information about placebo effects to patients?  *For example, should the effect size and types of effect be included? Should the most important mechanisms be explained (e.g., neurobiology, learning mechanisms)?* |
| C2. | What aspects of nocebo effects (and their mechanisms) should be included when training health care providers in providing information about nocebo effects to patients?  *For example, should the effect size and types of effect be included? Should the most important mechanisms be explained (e.g., neurobiology, learning mechanisms)?* |
| C3.a | Please list the groups of healthcare providers you believe should be trained in providing information about placebo and nocebo effects. Please list them in order of priority, listing the groups you consider to be most important first. |
| C4. | Concerning the format of a training in providing information about placebo and nocebo effects: do you believe such a training should be standardized, or specialized?  *For example, do you think the same training may be provided to all health care providers, or should the content of training be dependent on the specific group of healthcare providers / patient groups? Please briefly elaborate on your response and why you think a training should be standardized / specialized.* |
| C5. | In which format should health care providers be trained in providing information about placebo and nocebo effects? (e.g., face-to-face lectures or training, an online module or course, information leaflets, or other types of training?) |
| C6. | How long should a training about providing information about placebo and nocebo effects be? (e.g., a full-time course (for example, once weekly for 6-weeks) when training to become a doctor or nurse, or a single 1 hour training session?) |
| C7. | When should health care providers be trained in providing information about placebo and nocebo effects? (e.g., when training to become a doctor/nurse, and then in the beginning stage of this training or before finishing? As a post-graduate course? Booster courses?) |

*Note. a due to time constraints on the second Delphi questionnaire and the number of statements derived from the first survey, all statements derived from questions A2, A3, A7, B2, B3, B7, and C3 were dropped for the second Delphi round (as they were rated by the workgroup members as less relevant for the development of recommendations for informing patients and training healthcare providers).*

**Supplementary Table S2.** First Delphi survey results: responses to open-ended questions about A) informing patients about placebo effects, B) informing patients about nocebo effects and C) training health care providers in providing information about placebo and nocebo effects.

|  |  |  |  |
| --- | --- | --- | --- |
| A. Informing patients about placebo effects | | | |
| Survey question | | Resp no. | Provided responses (unedited) |
| A1. | *What should patients be told about placebo effects?* | 1 | The information should be provided in a non-detailed way, and not go into mechanisms too much. Patients can be told something like "In clinical trials among individuals with your particular condition, patients who received the real drug AND patients who received placebo were improved. This means that there is a chance that your condition may be improved from your body's own resources, in addition to the specific effect of your medication". |
|  | 2 | Patients should be told that placebo effects are inherent to any treatment. That they represent a genuine reaction of the body that promotes healing and treatment response. Patients should be informed about underlying neurobiology - can be described as a brain response that triggers endogenous pharmacology |
|  |  | 3 | Patients should be told why they are being prescribed them, why the practitioner thinks they may work. While in depth disclosure is unnecessary some very basic information might be provided about mechanisms of placebo effects. However, since we are very far from having full knowledge about how open label placebos work (i.e. whether it is the rationale, the provider interaction &/or the pill) this will have to be rudimentary. |
|  |  | 4 | I think this is context dependent. If placebos are being (openly) administered as part of clinical practice then providing specific information about the possible mechanisms of placebo effects, including its neurobiology, likely forms an important component of the rationale and hence this information should be explained in this circumstance. However, in the context of placebo-controlled trials, I do not think that it is necessary to go into that level of detail. Of course, any information provided must be evidence-based and not overstate the efficacy of the placebo effect. |
|  |  | 5 | All patients should get the general information (which should also be offered in a format suitable for low-literate patients), patients who indicate they would like to know more should receive information about the mechanisms and neurobiology. |
|  |  | 6 | If a practitioner decides that it would help in the patient by describing placebo effects, I believe it would help to indicate the following: (1) placebo effects happen for everyone, it is a beneficial/healthy psychobiological response (thus, not something to avoid or to view as a weakness), (2) time permitting, the established psychological and neurological mechanisms should be clearly explained. We know expectations are involved in placebo effects and explaining the known mechanisms will help to develop the expectation of benefit. Substantial research in persuasion and learning finds that beliefs developed from greater information/thought are stronger and longer lasting (for a discussion, see Geers, Brinol, Vogel, Aspiras, Caplanides, & Petty, 2018). Thus, providing this information would provide mental scaffolding to hold this expectation in place over time. Also, NOT providing this justification leaves it open for the patient to interpret and that could lead to misattributions about why the practitioner may think s/he would respond to a known placebo--which could result in unpleasant feelings and erode patient trust. |
|  |  | 7 | Patients should be told that placebo effects are, and always have been, part and parcel of all treatments. The level of detail should be relevant to the patient. Care should be taken to not minimize either the seriousness of the condition or the validity of the proposed treatment. |
|  |  | 8 | i would do this according to the information given in open-label placebo, i.e. 1. this is a placebo, 2. it works through expectancy and conditioning, 3. you do not have to believe in it, but y4. you should take it as prescribed. maybe it would be good to also inform patients about its effects and limits as well as about its neurobiological underpinning. |
|  |  | 9 | This depends on the condition being treated and the treatment used. |
|  |  | 10 | I think patients should be told about the general knowledge of placebo. How the perception of the treatment, the relationship with the healthcare provider, expectations and emotions in some conditions and some cases may be associated with altered activity in the brain and release of neurotransmitters. However, I think one should be careful not to make too broad generalizations from one disease to another or from healthy volunteers to patients. Clarification question: Is it assumed that the information about a placebo effect is given in the context of an active treatment? |
|  |  | 11 | Whether about a trial or clinical practice, rather than focus on the word 'placebo', the patients should be told what the intervention is: what it contains, and what it's likely benefits are. |
|  |  | 12 | Patients should be informed about both the very definition of placebo effects and the underlying mechanisms. Also, as the mechanisms are different across different medical conditions, this should be done according to the specific condition the patient suffers from. |
|  |  | 13 | I don’t think that patients necessarily need to be told about “placebo effects” at all. Instead, they should be told about the importance of the specific mechanisms associated with placebo effects, such as a good patient-clinician relationship and positive expectations. For most patients, speaking about the neurobiology in great detail is likely to confuse them more than anything else. On the other hand, for a subset of well-educated patients, especially those who are more science-oriented, discussing the neurobiology of placebo effects might increase their expectancies. Nevertheless, as a general policy, I would avoid anything discussing the underlying neurobiology in any detail. Instead, I might make general statements about the scientific basis of placebo effects, without going into specifics. If however, one is intending to treat patients with open-label placebos, then of course, it is essential to speak explicitly to each of them about the mechanisms of “placebo effects” so as to allay negative expectancies, and to promote positive expectancies. But again, I would be very careful not to overwhelm the patient with too much neurobiological detail. |
|  |  | 14 | The type of information depends on the situation: 1) When administering placebos in an open-label fashion, it is crucial to emphasize that the placebo response is a true neurobiological phenomenon, which can be objectively measured and is accompanied by the release of neurotransmitters. Information may further include a description of the psychological mechanisms of the placebo effect and the importance of taking the pills regularly. Outside OLP treatment, the focus should be on the importance of the placebo effect for the total response to treatment: the larger the placebo effect, the larger the benefit from the treatment. Then the placebo effect should be explained as a true neurobiological phenomenon, which depends on the trustful relationship to the practitioner as well as on adherence to the treatment. |
|  |  | 15 | N/A |
|  |  | 16 | Explain the mechanisms e.g. in pain about the role of endogenous opioids |
|  |  | 17 | Information given to patients is not generic. It will be based on the diagnosis, the natural history of a condition or expected treatment effect (for example, an acute problem or a chronic disease model). Central to this process is the role of the clinician, that is, how will the relationship be developed (a diagnosis, treatment plan with a single review, or a longer lasting relationship for a chronic or complex disease). Furthermore there is the consideration of time. Therefore, information on placebo and nocebo will need tailoring to the scenario. For interactions that are likely to be short, with minimal follow-up, this should be general and should incorporate key information about treatment and expectations, including treatment side effects. For interactions that are likely to involve development of a longer term relationship, the information could be presented in a general form to start with a view that the discussion of the mind-brain interaction in treatment will be a central theme to the disease treatment. |
|  |  | 18 | Patients should be given general instruction about physiological mechanisms and brain self-regulatory processes. |
|  |  | 19 | Patients should be told everything we know about placebos/nocebos, namely: 1. what they are and how they have traditionally been used in clinical trials 2. how they are not magical, but instead a measurable and understandable effect of their mindsets and the social context 3. how they might work to establish more useful mindsets and more facilitatory social contexts. 4. variations in placebo effect - where they are likely to have the most benefit as well as their limits |
|  |  | 20 | Patients should be told about mechanisms, since the better outline the stronger placebo effects are. Outline of mechanisms can differ e.g. expectations or neurobiological background, depending on the needs of the patients and the specific context. It is not necessary that the term placebo is used.. |
|  |  | 21 | It is not clear what context you are referring to. Is this for any treatment patients get and in any medical treatment setting? Or is this question in the context of a research study and the benefit potentially gained from the placebo arm of a clinical trial? In general medical practice for patients coming to see doctor in pain from falling from roof of a house, or someone asking for contraceptive advice, or wanting a wound sewn up I am not sure of the benefit of providing even general information about the placebo effect or its mechanisms. |
|  |  | 22 | Patients should be told as different as they can understand, they should receive information about mechanisms and about neurological underpinnings, however, this information should be individual tailored. Patients should be told about a specific rational and should understand, why placebos will work in their individual case. This is very difficult, because in some cases we have to use principles of conditioning and we have to teach them. |
|  |  | 23 | The starting point should be to inform patients open and straight about placebo effects. However, much should depend on the kind of treatment AND the capabilities of the patient. Delivering information a patient can not properly cope with, might be harmful. |
|  |  | 24 | Patients should be told about the possibility of active (brain-caused) placebo effects, including possible mechanisms of placebo effects and the neurobiology. But this must be done with a understanding of what the specific intention of informing patients is. The reasons and benefits might depend quite a lot on the context. |
|  |  | 25 | Information should be tailored to the patient's education and background. Patients can be told about the neurobiology of placebo effects as long as communication and contents are framed to the needs of the patients. Details can be OK but not necessarily a must. |
| Survey question | | Resp no. | Provided responses (unedited) |
| A2.a | *What benefits may be gained from informing patients about placebo effects?* | 1 | \* Informing about placebo effect may empower the patient to believe that the body still has the ability to reduce symptoms/get better. \* The perceived empowerment may lead to hope, and a more positive attitude towards one's health. Positive affect. \* A more positive attitude towards treatment may, in turn, lead to better compliance, which may lead to better treatment outcomes. \* Informing about placebo effects may also lead to less overuse of medication, and less usage of non-evidence based treatments. |
|  | 2 | based on experimental and clinical evidence placebo effects can improve symptoms and conditions, enhance treatment outcomes and the adherence to treatment |
|  |  | 3 | (1) Openness about disclosure will engender trust with patients - because of admitting how placebos work. (2) Patient -physician alliance may improve because (we might expect that) for OLP to work the quality of the interaction (e.g., cues of empathy) will be necessary to elicit placebo effects. (2) If placebos can be used in conjunction with analgesics (for example) this will reduce addition and side effects of these drugs. |
|  |  | 4 | 1. Informing patients about placebo effects may enable health professionals to use placebos non-deceptively in order to enhance patient outcomes Rationale: this would mean that placebos could be employed ethically without deception. 2. Informing patients about the placebo effect may help to empower patients to know that their own thoughts and expectancies could be harnessed to improve their outcomes. Rationale: learning about the placebo effect might help patients to understand that factors beyond the medication itself influence how they feel and this could help to foster positive expectations and therefore outcomes. |
|  |  | 5 | \* Better informed decision making by patients. Giving more information to patients empowers them, this control will probably lead to higher well-being. \* Better treatment outcomes since there is a better doctor-patient-relation. |
|  |  | 6 | 1. Informing patients about placebo effects (with proper explanations of what they are and why they come about) could help them take advantage of the phenomenon. This possibility is supported by the emerging research on open-label placebos. 2. If placebo effects are explained as a healthy and adaptive internal response that individuals can access to help self-heal, this has the potential to raise self-efficacy and hope (which have been linked to positive health outcomes). This pathway is well-described in the Brody and Brody (2000) book on placebo effects, in which they subtitle, "How you can release the body's inner pharmacy for better health". In essence, the placebo effect provides another tool for individuals to use when facing health challenges. |
|  |  | 7 | Some patients will experience better outcomes by recognizing that they are an active component of the treatment Patients will be treated more ethically |
|  |  | 8 | not deceiving patients, informed consent! |
|  |  | 9 | 1. It can facilitate clinical use of an open-label placebo where this is appropriate. 2. It can alert patients about using high-risk treatments based on positive experiences with them. |
|  |  | 10 | By informing about a possible placebo effect it may be possible to induce a placebo effect - although this probably needs to be tested to a higher extent. If so, one benefit may be that a placebo effect in the case of pain may help increase the overall analgesic effect of the treatment and another benefit may be that it may counteract potential nocebo effects. |
|  |  | 11 | I don't think there are any benefits of telling patients about 'placebo' effects as such. Rather, it is better to focus on what the intervention is, as in: 1. 'A communication intervention designed to induce mind-body self-healing', or 2. 'A sugar pill that will remind you of how important it is to do x' |
|  |  | 12 | The ethical aspect is important, in order to perform honest medical care. In addition, informing patients may potentially increase the psychological responses. |
|  |  | 13 | The major potential benefit is that patients might show better treatment outcomes. A second potential benefit is that informing patients about placebo effects might encourage them to value their relationship with their clinician more highly, and consequently, to insist on a better therapeutic relationship. This could lead patients to switch clinicians if they feel that the relationship is insufficiently positive. Ironically, however, when thinking about the reasons why these potential benefits should be expected, I am put in mind of what creative writing professors always tell their students – “show, don’t tell.” In this context, it’s more important to show patients that you (the clinician) are warm and empathic, as opposed to telling them that clinician empathy and warmth might improve clinical outcomes. |
|  |  | 14 | 1) Informing patients that the placebo effect is a true neurobiological response could help patients to overcome their own skepticism about placebo effects. 2) Information on the importance of placebo effects for the total benefit from a treatment could help to empower patients by enhancing their knowledge on how they can contribute to the success of a treatment. For example, when patients recognize that taking drugs regularly can help to enhance the placebo effect may enhance not only adherence but also perceived control about symptoms. |
|  |  | 15 | 1) Improved |
|  |  | 16 | A mechanism allows for a stronger expectation effect |
|  |  | 17 | 1. We can link concepts of self-management to the management of diseases (that is, the patient can believe that they are equipped with powerful endogenous mechanisms to heal). 2. We can potentially dose reduce medication (and therefore side effects and cost) with harnessing of expectations, learning mechanisms and open label placebo use. |
|  |  | 18 | 1. patient can gain a sense of control, and internal locus of control, since placebo mechanisms are endogenous, self-regulatory 2. reduce the "deception" connotation of the placebo |
|  |  | 19 | Understanding placebo effects can help patients understand the essential role of the psychological and social forces in healing. Understanding these forces can help them act in ways that leverage those forces for better health (i.e. choosing more useful mindsets about their illness, bodies, and treatment) and working to establish clinical relationships imbued with a sense of competence and warmth (i.e. they feel their provider "gets it" and "gets them". |
|  |  | 20 | - ethical advantages deception is not necessary for placebo effects - increased treatment effects when placebo mechanisms are clearly outlined |
|  |  | 21 | Patients in clinical trials could benefit from more information about the potential benefits of placebos and why they are used in clinical research. Information about how positive expectations can influence the response to a treatment may be helpful to boost overall outcome or response. |
|  |  | 22 | 1. Symptom reduction 2. Symptom control 3. Confidence in their body and their own symptom control strategies 4. Understanding placebo effects patients can understand that their organisms provides mechanisms of self healing or support to manage symptoms. Patients can take this up and learn to support these self management strategies. |
|  |  | 23 | Open communication with the patient; willingness to participate ,also for panels in the future; |
|  |  | 24 | Patients may realize that their own thoughts and beliefs can affect their health and wellbeing, and work towards minimizing harmful thoughts and promoting helpful ones. They may also realize that apparent improvements or deterioration in a medical condition may not only be due to external causes (drugs, disease course) but also to their brain-body response towards it. |
|  |  | 25 | Informing patients about placebo effects can empower expectations and benefits for patients. |
| Survey question | | Resp no. | Provided responses (unedited) |
| A3.a | *What risks or disadvantages may be associated with informing patients about placebo effects?* | 1 | \* Patients may feel uncomfortable knowing that psychological factors will affect disease symptoms. \* Information that is given the wrong way may give the patient the notion that his/her condition is related to "thinking the wrong way" and lead to guilt. \* If patients are too positive about the placebo effect it may lead to a too restrictive use of medications that the patient needs in order to maintain his/her health. |
|  | 2 | I can't see any. Maybe some patients might become afraid of being treated with placebos rather than gold standard treatments, but this can likely be avoided with adequate and clear communication |
|  | 3 | (1) Confusion - we might expect some patients to be confused about why they are being prescribed it. (2) Stigmatization: for some conditions, especially for medically unexplained conditions (e.g. fibromyalgia, depression etc) patients may worry that they are being told that their symptoms are 'all in their head'. (3) May lead to erosion of trust - for reasons (1) & (2) above (4) May undermine patient-doctor relationship among some patients - perhaps even among those who are already vulnerable (e.g. less well educated, minorities, elderly) (for reasons given in (1) & (2) above). |
|  |  | 4 | 1. Open label placebo effects may be less effective (or not at all effective for some conditions) than deceptive placebos. Rationale: there is limited evidence comparing open label and deceptive placebos head-to-head and therefore information patients about the placebo effect might reduce the efficacy of traditional deceptive placebo effects (though is obviously ethically preferable as per above). 2. Discussing placebo effects may confuse patients about whether they are receiving real medication or a placebo (if for example the see the same health professional who previously prescribes a placebo). |
|  |  | 5 | \* This might be complicated information for many patients who are already making hard decisions about their treatments (and we know that incorrect medicine usage is already big) \* I would be worried that it would lessen the placebo-effect, but there seem studies that contradict this. |
|  |  | 6 | 1. The data on the long-term and diverse impacts of informing patients about placebo effects is still emerging. As such, one risk would be that the downsides of such an approach in certain contexts have not yet been revealed in the data. 2. Data on this second issue is very limited. But, one potential concern is that poor explanations/communication of the phenomenon could lead individuals to resist placebo effects--as they could view them as a sign of weakness of gullibility. There are a few survey studies that should lay people who know little of the placebo effect have mixed impressions of those who display placebo effects, but at least some of the impressions are negative, such as week-minded. This is a concern. |
|  |  | 7 | Some patients will not experience worse outcomes, as they will suspect that the treatment itself is less effective if they themselves are an active component of it The potential for a placebo effect to be reduced in a vicious cycle that suggests that if a component of the treatment is a placebo then they have less reason for faith/expectation in the treatment; if they have less faith/expectation of the treatment then that placebo component is further reduced. |
|  |  | 8 | maybe loose some effects and also, some patients might refuse to take placebos |
|  |  | 9 | 1. Depending on the condition and the treatment being prescribed, this can be irrelevant. 2. It could also lead to patients devaluing a potentially useful empirically validated treatment. |
|  |  | 10 | Perhaps some patients will be disappointed if they do not get a placebo effect which may decrease the effect of the active treatment (if this information is given in the context of an active treatment). Also, some patients may feel that it is their own fault that they do not get a placebo effect, again counteracting other potential positive effects. |
|  |  | 11 | 1. The patient might feel they are being tricked. But this is not true because we can give open label placebos. 2. The patient might feel they are getting 'nothing'. This is also not true, because placebos are something. Hence we should avoid the term 'placebo' (see above). |
|  |  | 12 | The first disadvantage is that maybe some patients will not respond after being informed. The second could be a bad reaction by the patient once learned that the doctor wants to administer a fake treatment. |
|  |  | 13 | The major risk is that speaking about “placebo effects” might undermine the active treatment. The patient might wonder, “Why is my clinician talking about placebo effects? Maybe the treatment itself doesn’t work?” A second risk is that talking about placebo effects will confuse patients who already have to process a lot of complex medical information. |
|  |  | 14 | 1) If a doctor informs patients about placebo effects, patients may suspect that the doctor is administering placebos from time to time without informing patients properly about the nature of the "drug". 2) Some patients may question the competence of the doctor, when the doctor starts to talk about the placebo effect. |
|  |  | 15 |  |
|  |  | 16 | None |
|  |  | 17 | 1. The patient perceives that there is a possibility of treatment substitution "I will not get the real drug" 2. The patient perceives that the clinician has an "alternate" focus which does not align with other treatment experiences or advice from treating clinicians. Both these issues may undermine the clinician patient interaction which is central to trust, compliance and treatment outcome. |
|  |  | 18 | potential to lose the beneficial effect of a placebo. some effects may require deception |
|  |  | 19 | They might feel like they are being blamed for their state of (ill)health b/c of maladaptive mindsets, social demographic characteristics, etc. They might feel overly burdened by the responsibility of changing their health. |
|  |  | 20 | That patients loose trust in medicine in general |
|  |  | 21 | The question is how to maximize expectancies without the likelihood that these may be overly positive for the patient's circumstances or treatment and thereby undermine future therapy. The time taken on this information exercise may not pay off in terms of outcome. Presumably there will be less patients treated per day unless you have assume an unlimited health care resource. |
|  |  | 22 | 1. The worst case is, that patients misunderstand this topic\* and could lose confidence in medical or psychological or physiotherapeutic treatment. In time of "Fake-News" we (the placebo community) should face our responsibility for the patients` trust we were given. \*From my own experience I can say that most patients understand placebo mechanism very fast. The problem is, that their general practitioner have problems to understand a constructive way of using placebos thus dislike the use of placebos (e.g. “it is irresponsible to give placebos in this kind of disease", although the patients were not told to change their verum medication) and transfer their attitude to the patients. |
|  |  | 23 | patients might worry about the quality of their treatment (assuming that placebo should be a non-treatment), |
|  |  | 24 | Patients may lose faith in effective treatments and jump to a over-belief or over-reliance in self-healing or "power of the mind" effects. This is due to a tendency we all have to overgeneralize. This could prevent people from pursuing helpful medical treatments. People may dismiss active treatments as "just placebo". This could happen if they misunderstand that all therapeutic effects are placebo effects. Patients may believe in other ineffective treatments (e.g., healing crystals) that are not effective. |
|  |  | 25 | There is a chance that patients may feel deceived and offended. |
| Survey question | | Resp no. | Provided responses (unedited) |
| A4. | *In what manner might patients be best informed about placebo effects in medical healthcare (e.g., letters, brochures, oral information by a doctor or other healthcare provider)?* | 1 | \* Oral information will yield the best results if the goal is to make patients believe that the placebo effect can be beneficial for them. \* Someone with authority should inform the patient, i.e. the treating doctor or psychologist. \* Yet, reading about placebo effects can also lead to positive expectations (as shown in the study by Jensen's lab, Ponten et al. in Pain Reports, 2019) where the information about the benefits of a treatment was conveyed over the internet. |
|  | 2 | This should be based on empirical evidence that needs to be acquired in future research. It should also be decided upon the local infrastructure and individual needs of a health care center / clinic etc. |
|  | 3 | A multipronged approach. Of utmost importance is a provider explaining placebo effects. But this should be supplemented by reading material (e.g., leaflets or a approved website). |
|  | 4 | I think this is best done via a discussion with the healthcare provider perhaps with some supporting information the patient can look through afterwards. |
|  | 5 | This would be something to test! My intuition would say: oral information from a health provider complemented with brochures. This combination is usually most effective, but it is also more expensive to implement. |
|  | 6 | Unfortunately, I believe this information would be best delivered orally (although that is not to say the information would not have beneficial effects with other delivery methods). This is for several reasons. First, as noted several times above, There is a real concern that patients will misconstrue what placebo effects are and what they say about the responder. Oral communication would provide opportunities to limit this problem. Second, a large literature in social psychology on belief change shows that face-to-face communication is much more effective in instilling long-term belief change than less engaging forms of message delivery. As such, face-to-face messages would have the greatest impact. Third, the literature and patient-physician interaction finds that patients are most responsive to physician delivered messages, which would help instill the message. |
|  |  | 7 | In person by the doctor. |
|  |  | 8 | brochures and oral information by doctors and other healthcare providers |
|  |  | 9 | Oral information by a doctor or other healthcare provider |
|  |  | 10 | Preferably by a health care provider as this will probably enhance the placebo effect (again this needs to be tested empirically) and so the patients are able to ask questions in order to help adapt an optimal perception of placebo effects and the general treatment. |
|  |  | 11 | I think we should avoid the term 'placebo' and instead focus on what we are doing. We don't use the term 'medicine'; we say what it is. |
|  |  | 12 | The best way to communicate is oral information. |
|  |  | 13 | As I noted above, I don’t think patients necessarily need to be informed about “placebo effects” per se, but rather they should be informed about specific mechanisms such as the therapeutic relationship and positive expectations. Regardless of whether patients are told about “placebo effects” or about specific mechanisms, I think they should be provided with several modes of communication, starting with direct communication by the clinician, but also including brochures, as well as letters and/or online communications. But the most important effects are not likely to be in terms of explicit communication about “placebo effects” but rather in terms of actual clinician behaviors that embody empathy, warmth, and competence, and which foster appropriate positive expectations in the patient. |
|  |  | 14 | When a doctor is planning OLP treatment, he should inform the patient orally. Outside OLP treatment, patients should be informed by standardized information (e.g., brochures and short video clips), for example in the waiting room. The doctor could then refer to this information during patient consultation. |
|  |  | 15 |  |
|  |  | 16 | all of the above, but best through their primary care physician |
|  |  | 17 | Consistency is the key. This needs to be delivered within the health care team and into the broader community. |
|  |  | 18 | direct communication from doctor or nurse practitioner would be best |
|  |  | 19 | all the above + videos and deliberate trainings |
|  |  | 20 | all types of possible information should be available. The more the better.... |
|  |  | 21 | The method that is best suited to the health care context and the patient's level of understanding. Probably not written material unless it uses an attractive and engaging style (which most medical information doesn't) |
|  |  | 22 | oral Information together with brochures. It is important that this information is given by healthcare providers who were trained in this topic. |
|  |  | 23 | depends upon the treatment and the patient. High educated patient might prefer letters, but we know that many patients lack medical literacy skills, and for them oral information or visual information might be better |
|  |  | 24 | I think educational materials would be helpful, in the form of short videos and animations. In-person explanations from clinicians is helpful too, but this must be done with a understanding of what the specific intention of informing patients is. |
|  |  | 25 | Multiple ways of informing patients can be included. Definitely, the doctor can present this possibility as well as the other healthcare providers. the utility of the brochure can be limited. |
| Survey question | | Resp no. | Provided responses (unedited) |
| A5. | *Should the term ‘placebo effect’ be used when communicating about these types of effects?* | 1 | I normally use "placebo-like" effect in order to soften the terminology a little. If one uses placebo effect some individuals will think they are gullible. |
|  | 2 | I am fine with using the term "placebo effect" because people likely have heard about it before. But you can add that - based on empirical evidence we know that placebo effects are associated with endogenous pharmacology...see below |
|  | 3 | Yes. Because this is a scientific term. Failure to be transparent would be inappropriate. Providers have a duty to be open and honest. |
|  | 4 | I can see the arguments on both sides. I personally do not think that "placebo effect" is a pejorative term and in some ways it is convenient because many people have encountered this term before. But perhaps some patients and physicians might still consider it to be more about 'fake' treatments and symptoms than a genuine psychobiological process. Of course, in any discussion of the "placebo effect" the healthcare provider could explain why it is not a pejorative term. |
|  |  | 5 | If you are going to inform people well, you can and should not avoid the term. But you need to explain it carefully. |
|  |  | 6 | I have mixed feelings on this point. First, the term placebo effect is vague and comes with a lot of unnecessary baggage (since the inception of the term). As mentioned earlier, some people have negative views of placebo responders and this could impede successful communication. That said, there are several key benefits. First, the term is one that people seems to already grasp which would allow for patients to not disengage from a communication. Patients can disengage from medical messages when they use terms they do not know, so the name could be useful in facilitating the communication. Second, the term is what exists in the research literature, and shifting to a different term for practice only could lead to barriers in translation. Third, although there are problems with the term, the emerging literature on open-label placebo effects provides evidence that the label is not, on its own, an impossible barrier to getting positive effect in patients. Rather, the term placebo effect is used in open-label studies and patients have benefited, suggesting the label is not a full impediment to success. Finally, there is the problem of what else to call the effect (or basket of effects). One reason the term remains in the literature is, in part, that there is not one single agreed upon alternative term to switch to. With all of this in mind, I would say to keep with the term "placebo effect" unless there is a fully agreed upon term to switch to (which I would be happy to see). |
|  |  | 7 | It is a problematic concept, that many people have been educated to see as part of pseudo-science/alternative medicine. I think a better term is 'psychological component of treatment' |
|  |  | 8 | yes, it should be used as this word is common language and everyone knows what you are talking about. also, it’s quite an established brand name.... |
|  |  | 9 | Yes |
|  |  | 10 | At present I think it is the best term we have, so I would use the word placebo and give a good explanation of what that means in a modern context. |
|  |  | 11 | No. We should describe what the effects are (for example, 'helping the body produce its own drugs like endorphins') |
|  |  | 12 | Yes, the term placebo effect should be used. This is the most common accepted term, thus there is no risk of confusion or misunderstanding. |
|  |  | 13 | As I noted above, I don’t think the term “placebo effect” needs to be used at all. Injecting the term “placebo effects” into the patient-clinician dialogue has the potential to undermine the patient’s expectancies about the active treatment (i.e., the patient might think, “Since my doctor is talking about placebo effects, maybe the treatment she is recommending is just a placebo!) The only exception is if one is intending to explicitly harness placebo effects, for example by prescribing open-label placebos. In that case, one necessarily has to explain to the patient why placebos might be effective. |
|  |  | 14 | The term "placebo effect" should be used in my view, because most people will know this term already and can build on this knowledge. |
|  |  | 15 |  |
|  |  | 16 | No, placebo has a negative connotation. I would suggest expectation effects |
|  |  | 17 | It should. The better term is placebo effects (pleural) as there are multiple. |
|  |  | 18 | yes, patients know this term, and reframing while still using this term would be best |
|  |  | 19 | yes. at least at first to contextualize it in what they know. but then it should be broken down into its constant parts: body’s natural ability to heal, mindset (expectancies, beliefs, thoughts), and social context (relationship, branding etc) |
|  |  | 20 | Not necessarily, this might depend on the needs of the patients |
|  |  | 21 | Yes it has an established meaning and it is a familiar term to many patients. |
|  |  | 22 | I think yes. However, please consider the current initiative of Fabrizio and Dimos Mitsikostas!! |
|  |  | 23 | yes, I wouldn't know a better term. |
|  |  | 24 | Yes. I think it is a commonly used word that people can understand and has a fairly established definition. |
|  |  | 25 | Yes, the term 'placebo effect' should be included. |
| Survey question | | Resp no. | Provided responses (unedited) |
| A6. | *Are there other terms that might be preferable to use when communicating about placebo effects?* | 1 | "placebo-like effect" In Swedish there is a great word that is equivalent to "endogenous" but a more simple word that is not a medical term ("kroppsegen"). This allows for using the term: "endogenous relief", or "improvement due to endogenous processes". |
|  | 2 | endogenous pharmacology and self-healing potential triggered by positive attitude, trust and prior experience |
|  | 3 | No I advocate using placebo effects. Re: expectancy I disagree, precisely because there is disagreement about what expectancy means. Also using the term expectancy is misleading - patients may have a false understanding that expectancy refers only to beliefs, rather than to implicit knowledge. |
|  | 4 | Expectancy effects or mindset effects could be alternatives. |
|  | 5 | No. |
|  |  | 6 | Please see my comment above. I often head others say "inner healing" effects, or self-healing, which all point to internal causes for change, which could facilitate feelings of efficacy. But, none of these are satisfying to me. |
|  |  | 7 | Psychological component of the treatment |
|  |  | 8 | no, but one should explain the placebo and its effects and then expectancy and the like might come into play again |
|  |  | 9 | No |
|  |  | 10 | iatrogenic effect, healing effects related to the perception of the treatment. |
|  |  | 11 | We should describe what the effects are (e.g.: 'X helps the body produce its own painkilling endorphins') |
|  |  | 12 | When explaining the placebo effect, the doctor should tell the patient about the role of expectancy, thus both terms should be used. |
|  |  | 13 | Again, as noted above, I don’t think that the term “the placebo effect” necessarily needs to be mentioned, unless placebos are explicitly being used (i.e., open-label placebo treatment). Otherwise, the clinician should preferably speak about the therapeutic relationship or positive (and negative) expectations. Alternatives to the "placebo effect" include: patient expectations, patient-clinician relationship effects, the therapeutic relationship, a good doctor-patient relationship, good bedside manner. |
|  |  | 14 | "meaning response", "bodily self-healing mechanisms". |
|  |  | 15 |  |
|  |  | 16 | see above |
|  |  | 17 | Expectancy, learning, context, internal healing effects (wording at a patient level) |
|  |  | 18 | endogenous self-healing mechanisms |
|  |  | 19 | I don't think it is helpful to try and come up with a new name for placebo. Rather, better to just describe what effects are actually driving it. |
|  |  | 20 | Expectancies |
|  |  | 21 | Positive expectations |
|  |  | 22 | Placebos effects should be associated with self-efficiency. |
|  |  | 23 | -- |
|  |  | 24 | It depends on the point and what is being communicated. I think of expectancy as an aspect of placebo effects and a potential psychological mechanism, not as an alternative. Some placebo effects are not mediated by expectancy. |
|  |  | 25 | Placebo effects and expectancies are both OK and can be used interchangeably |
| Survey question | | Resp no. | Provided responses (unedited) |
| A7.a | *Are there any potential patient groups or other populations that should not be informed about placebo effects?* | 1 | Patients with severe psychiatric disorders that entail distortions in perceiving the world, e.g. delusions and psychotic symptoms, may be more confused by placebo information. Some may even have symptoms that are directly related to delusions around "thinking in ways that cause external events, such as disease". In these cases it would be counterproductive and perhaps also unethical to talk about placebo effects. |
|  | 2 | No |
|  | 3 | It would be paternalistic to assume so a priori without excellent reasons. There should be a presumption of capacity in accordance with the Declaration of Helsinki. Providers have a duty to respect patient autonomy. We might expect that for young children that describing placebo effects is unnecessary, as would be the case with other treatments. But parental knowledge and awareness is important. Also children - especially older children - should be able to provide assent to treatments (including placebos). The onus is on providers to find ways to educate patients and deception or any equivocation should be avoided. |
|  |  | 4 | Again, I think this depends on the context. I think placebo effects only really need to be discussed when relevant to that patient. For example, it would be critical to explain placebo effects if the healthcare provider was intending to administer a placebo. On the other hand, it does not seem at all necessary in the course of standard care, unless there is evidence for that given condition that informing patients about the placebo effect helps to bolster the treatment effect (which I am not aware of). There are of course some cases where providing information about any aspect of a treatment may be difficult, e.g. patients with cognitive impairment, children and in these cases any discussion of placebo effects should be in line with the general procedures for providing information to these samples (e.g. with a guardian present). |
|  |  | 5 | I see no reason to exclude specific groups (and it seems hard to keep information from one group with so much being shared online in patient forums) |
|  |  | 6 | In cases where there are data indicating that placebo effects cannot improve outcomes, I do not see an advantage in information patients about them. doing so would give false suggestions of benefit. |
|  |  | 7 | This is difficult. The idea that a placebo can function as part of whole of a treatment for an illness can make the illness itself appear minor. Depression is highly placebo responsive but we should never overlook the debilitating effects. This is why the term placebo is wrong, and why terms that demonstrate that the brain of the patient is part of the cure is important. |
|  |  | 8 | no. if there is a patient group not fit/not capable enough to understand the term placebo, one should not use it in this patient group. |
|  |  | 9 | See answers to previous questions |
|  |  | 10 | I think all patients can be informed about placebo effects, but it is important not to generalize knowledge of placebo effects in e.g. pain to potential placebo effects in e.g. cancer treatment. |
|  |  | 11 | No. |
|  |  | 12 | In general, I believe there are no specific groups that should not be informed. |
|  |  | 13 | Again, as noted above, I’m not sure that any patients should necessarily be informed about placebo effects, at least not using the specific term “the placebo effects” Otherwise, I don’t think that there are particular patients who should not be informed about placebo effects. |
|  |  | 14 | All patients except cognitively disabled patients could be informed, as long as the information is adapted to the patient group (children, elderly, etc.). Cognitively disabled patients may be confused by the information on placebo effects and will not benefit from it. |
|  |  | 15 |  |
|  |  | 16 | No |
|  |  | 17 | No. This is not a binary issue. The skill is "how" to introduce the information after gaining information from the patient (including past experience, expectations of treatment etc). |
|  |  | 18 | children under a certain age, and cognitively impaired elderly who may not be able to contextualize the information |
|  |  | 19 | No |
|  |  | 20 | No |
|  |  | 21 | I think the general population would benefit from a greater understanding of both placebo and nocebo effects. |
|  |  | 22 | 1. Pain Patients 2. Patients with Depression 3. Sleeping Disorders 4. Patients with atopic dermatitis and itch |
|  |  | 23 | depends upon treatment and the way information is organized; if the information does not meet the skills of the patients it might be harmful; harmful information is worse than no information |
|  |  | 24 | I need more information about the context to understand the question properly. |
|  |  | 25 | Yes, patients with some psychoses may not benefit rather hurt from being informed about placebo effects. |
| Survey question | | Resp no. | Provided responses (unedited) |
| A8. | *General remarks* | 1 | One should base the placebo suggestion in evidence, such as the result from RCTs, in order not to be confused with "positive psychology" or "think yourself healthy". |
|  |  | 2 | I think it is very important to teach patients, that placebo effects are not only observed in the context of placebo treatments but that they inherently modulate the response to pharmacological and other specific treatments. |
|  |  | 3 | We need to explore how to disclose these effects among a range of patient populations - especially vulnerable patients (less educated, including illiterate patients; minority patients who may already lack trust in practitioners and the medical community; and among patients who have had negative experiences with providers). |
|  |  | 4 | N/A |
|  |  | 5 | A general question is when you are going to inform patients. Should there be general campaigns about placebo? Or do you only want to inform people who might get a placebo treatment? |
|  |  | 6 | At this stage, much of the literature on the benefits of informing patients about placebo effects comes from open-label studies. In these studies, the dvs are primarily on the key outcomes of treatment change (which makes perfect sense). But, on a more meta-level, it is possible that providing this information alters the role of the patient in healing and illness. It could raise feelings of efficacy and hope generally, which in turn, could have positive and cascading influences on patient outcomes. This is a value issue for future study. |
|  |  | 7 | Several 1. It is important that people do not believe that if they respond to a placebo there is something wrong with them (we have come across this several times in research and practice) 2. It is important that people understand that just because clinical trials often report that drugs perform better than placebos, this does not mean that for every person in the study the drug was superior (relevance of side effects etc). |
|  |  | 8 | using placebos should be accompanied by a more active behavior of the treatment provider. thus, the latter should ask for any benefits and use positive feedback to further strengthen placebo effects. likewise, any placebo treatment should be actively discontinued when no benefits occur. |
|  |  | 9 | No |
|  |  | 10 | I think it is important to clarify whether information about placebo effects should be given as a) stand-alone treatment, 2) in combination with inert treatments or 3) in combination with active treatments. I am in favor of option number 3. |
|  |  | 11 | I think that until the term 'placebo effect' has been clarified, it is hard to conduct this kind of survey and get meaningful results. |
|  |  | 12 | The crucial problem is that patients should be informed that a placebo effect takes place in any treatment, being pharmacological or not. Therefore, it is not necessary to administer a placebo alone (water or sugar), but merely enhancing expectancy when a real therapy is being given. In other words, what we should do in medical practice is a better doctor-patient communication. |
|  |  | 13 | No additional comments. |
|  |  | 14 | It is important not to raise false hopes, which means that the chances and limitations of the placebo effect need to be clarified at the same time. For example, cancer patients should be informed that placebo effects may help to control side effects from chemotherapy. However, they should be explicitly told at the same time that placebo effects will not prolong survival times. In general, the risk of wishful thinking should be taken into account when informing patients about placebo effects. |
|  |  | 15 |  |
|  |  | 16 | n/a |
|  |  | 17 | It is critical to know "what" patients believe before we embark on discussing this with them. This should be routine in healthcare assessment. |
|  |  | 18 | how much should health care systems charge for placebo therapy? should there be generics offered for pill placebos, etc.? |
|  |  | 19 | We need more research on how, after patients know what placebos are and how they work, what they can specifically do (or not do) to help them leverage their effects |
|  |  | 20 | NA |
|  |  | 21 | It would be good to have been more specific about what you mean by informing patients. You clearly have some clinical situation in mind. "Informing patients" means different things to different people. Researchers who have never seen a patient in a clinical setting will have a different view of this concept. |
|  |  | 22 | Thank you for you initiative!! |
|  |  | 23 | -- |
|  |  | 24 |  |
|  |  | 25 | Great survey. Thank you. |
| B. Informing patients about nocebo effects | | | |
| Survey question | | Resp no. | Provided responses (unedited) |
| B1. | *What should patients be told about nocebo effects?* | 1 | Patients should get general information, as well as some concrete examples. Mechanisms should not be conveyed. "It has been shown in clinical trials among patients with your condition that the side-effects of a treatment can occur even in those who received placebo. This means that the worsening of symptoms, and side-effects from medication, can occur if we expect them to occur. This can be important to bear in mind. For example, if we expect to get a dry mouth from our medication we may feel that as a result from a nocebo effect. " |
|  |  | 2 | same answer as for placebo effects - just for nocebo |
|  |  | 3 | While i remain unconvinced that scenarios exist where patients should be informed about nocebo effects, in the event that a patient might ask basic information can be divulged to patients, including about the explanations for how nocebo effects work. |
|  |  | 4 | Again, I think this is context dependent and one of the most critical factors is that whatever information is provided is evidence-based. There is some emerging work suggesting that informing patients about the nocebo effect can reduce its occurrence, and this seems like a great scenario to describe the nocebo effect with some specific information about how it occurs and how we might reduce its effect. |
|  |  | 5 | Same answer as before for placebo effects - only difference here is that I would be very careful not to mention specific side effects that could occur due to the nocebo effect - since that would increase the probability of people expecting them. |
|  |  | 6 | I feel like the same responses given earlier about placebo effects work here too. Explaining them and the established psychological and neurobiological mechanisms seems advantages when a practitioner has decided telling a patient about placebo effects could lead to improvement. More details again would be advantageous, as this would help in developing stronger and more consistent belief change (see Geers, Brinol, Vogel, Aspiras, Caplandies, & Petty, 2018). I think an additional factor to be added to the discussion of nocebo effects is misattribution of symptoms. That is, throughout the day individuals have variations and fluctuations in feelings and symptomology, which often go undetected. But, when one is "looking" for negative outcomes, these can become misattributed to the treatment when they should not. Knowing this could lead patients to not interpret some normal changes as negative reactions to a treatment. |
|  |  | 7 | I'm not sure how helpful it is to inform people about nocebo effects |
|  |  | 8 | patients should be asked if they want to know all information that could lead to nocebo effects |
|  |  | 9 | General information only. They should be told that some side effects might be nocebo effects and that awareness of this might reduce the likelihood of their occurrence. |
|  |  | 10 | Similar to nocebo effects, I think they should be informed about the mechanisms that we know of. |
|  |  | 11 | Patients should be provided with general information only, with access to additional information online if they wish. Too much talk about nocebo effects can actually induce nocebo effects. |
|  |  | 12 | Patients should be informed about nocebo effects in the same way as for placebos. |
|  |  | 13 | I think that patients should be told that learning about possible side effects and/or dwelling on them may increase the possibility that they will actually experience side effects. In accord with my comments above, I’m not sure that clinicians necessarily need to use the term “nocebo effect” to communicate this message. For most patients, speaking about the neurobiology of nocebo effects in any detail is likely to confuse them more than anything else. On the other hand, for a subset of well-educated patients, especially those who are more science-oriented, discussing the neurobiology of nocebo effects might increase the credibility of the intervention. Nevertheless, as a general policy, I would avoid anything discussing the underlying neurobiology in any detail. Instead, I might make general statements about the scientific basis of nocebo effects, without going into specifics. |
|  |  | 14 | The focus should be on informing patients about the relationship between the knowledge about side effects and the risk to develop these side effects. Empirical data could be used to illustrate these findings. One may add that negative expectation and learning appears to play a role. |
|  |  | 15 |  |
|  |  | 16 | yes, even more important as compared to placebo to prevent side effects of treatment |
|  |  | 17 | Nocebo effects are more difficult. General information should be presented but this should be shaped with concurrent information about placebo effects. |
|  |  | 18 | yes, this is even more important than placebo effect details. |
|  |  | 19 | See all previous responses as they apply to both placebo and nocebo |
|  |  | 20 | possible risk of side effects and negative treatment effects due to negative expectancies of the patients regarding the treatments |
|  |  | 21 | There is not enough evidence at the moment to answer this question if the goal is to reduce the nocebo effect. |
|  |  | 22 | 1. Patients should be told about the negative influence of nocebo effects on their medication, treatment etc. 2. They should know that expectation plays a strong role and that conditioning and learning shape expectation. 3. They can also be told about neurobiological underpinnings as far as they are evidence based. |
|  |  | 23 | Starting should be to inform patients in an open and straight forward way, nut with nocebo the effects can be more harmful, so more depends upon the quality of information, the position of the patient, and generally speaking, the context |
|  |  | 24 | I think patients should be informed about nocebo effects in certain contexts. But it's not clear exactly what those contexts are. |
|  |  | 25 | The same principles of placebo effects apply to nocebo. Patients can be informed about nocebo effects in details and the neurobiology of nocebo effects. |
| Survey question | | Resp no. | Provided responses (unedited) |
| B2.a | *What benefits might be gained from informing patients about nocebo effects?* | 1 | \* Patients may feel less anxious if they know that many patients feel increased symptoms or side-effects as a consequence of nocebo mechanisms. This teaches the patient that: Feeling worse may not be the same thing as the condition getting worse. \* If the patient is less anxious, it may have positive effects on the disease process, e.g. pain may decrease if there is less anxiety that maintains a vicious circle of negative affect/pain. \* Knowing about nocebo effects may decrease the number of healthcare visits due to less concern about one's health and treatment. |
|  | 2 | Informing about nocebo effects might actually decrease them, or increase the adherence to treatment despite unwanted effects. |
|  | 3 | I am not convinced that patients should be informed of nocebo effects. |
|  |  | 4 | 1. Describing nocebo effects may reduce their occurrence. Rationale: some emerging evidence suggests this is the case |
|  |  | 5 | \* Less nocebo effects, since people will learn about ways to manage their negative expectations. \* Better-informed decisions and more trust doctor-patient-relations. |
|  |  | 6 | 1. There is some evidence (from Keith Petrie's lab team) that informing individuals about nocebo effects can reduce expectation of their occurrence. This provides important information that a benefit of telling patients about nocebo effects is that it might help reduce expected effects and their occurrence. 2. As noted above, throughout the day individuals have variations and fluctuations in feelings and symptomology, which often go undetected. But, when one is "looking" for negative outcomes (e.g., holding a negative symptom expectation), these daily natural symptoms can become misattributed to the treatment when they should not (Geers et al., 2006). Knowing about nocebo effects could lead patients to not interpret some normal changes as negative reactions to a treatment. |
|  |  | 7 | It is more ethical to fully inform the patient The patient will understand the greater agency they have in their treatment |
|  |  | 8 | negative side effects could be avoided and/or better understood by patients (and their treatment providers) |
|  |  | 9 | It could diminish the incorrect attribution of adverse events as being side effects of the treatment. In this manner, it might increase compliance with prescribed treatments. |
|  |  | 10 | It may be possible to counteract them (again it needs to be tested). It may be possible to improve the overall treatment effect. |
|  |  | 11 | It might persuade them that their experience of a symptom is misattribution. |
|  |  | 12 | As for placebos, namely, ethics is important. Being aware of possible negative psychological effects may prevent their occurrence. |
|  |  | 13 | The major potential benefit would be to reduce the incidence and/or severity of side effects. One might expect this benefit if the patient’s expectations of negative side effects can be reduced. |
|  |  | 14 | 1) Patients might become more cautious regarding written information on side effects, for example in drug leaflets and in the world wide web. This would enable them to protect themselves actively from knowledge about side effects, and thus from nocebo effects. 2) Patients may become more aware of the possible consequences of negative suggestions delivered by the doctor and may learn to listen to the doctor also with the "nocebo ear". This will help patients to qualify the information delivered by the doctor, and even to change the doctor, if too many negative suggestions are delivered. |
|  |  | 15 |  |
|  |  | 16 | prevent occurrence of side effects |
|  |  | 17 | We may see less side effects to treatment. |
|  |  | 18 | reduce reports of side effects |
|  |  | 19 |  |
|  |  | 20 | Less side effects, less risk of procedures, particularly for the most vulnerable patients with high fear of side effects Ethical gains that patients are fully informed about the possible treatment effects |
|  |  | 21 | Potentially it could reduce the nocebo effect but this has yet to be established. Most of the reported side effects to medical treatments are caused by non-specific factors greater knowledge of this among doctors and pharmacologists would be helpful. |
|  |  | 22 | 1. Informed patients can avoid nocebo effects, e.g. they can decide what information they need to balance negative information. 2. Patients can understand why special treatments failed. |
|  |  | 23 | willingness to participate |
|  |  | 24 | People should be aware that their understanding of their course of illness can influence it in some ways. This could help people to realize when harmful thoughts and appraisals are occurring and minimize them. People could also minimize the impact of learned "triggers" that could lead to negative outcomes. |
|  |  | 25 | Communication about nocebo effects needs to be framed carefully. |
| Survey question | | Resp no. | Provided responses (unedited) |
| B3.a | *What risks or disadvantages might be connected to informing patients about nocebo effects?* | 1 | \* If the nocebo information is too reassuring, patients may underreport symptoms, which in turn may lead to the fact that a patient seeks help later and a health problem may escalate. \* A disadvantage may be that patients become self-aware and ruminate on the question whether a symptom is related to the properties of the active treatment or a nocebo effect. |
|  | 2 | if you are clumsy in your communication you may actually induce or enhance nocebo effect by elaborating on them |
|  | 3 | (1) Confusion among patients. (2) It adds burdens to practitioners that are unnecessary. (3) Physicians may become less attuned to what information patients need or want. Framing information about side effects in suitable ways is much more preferable than lengthy disclosure about nocebo effects and explanations for not divulging side effects, which I argue (social psychology suggest) will be counterproductive i.e. patients will end up exploring possible side effects if these are flagged up as a possibility with a treatment. (4) Increased negative effects among patients from possibility of experiencing nocebo effects as a result... |
|  |  | 4 | 1. Informing patients about the nocebo effect could potentially increase patient concern/worry about experiencing additional side effects/adverse outcomes Rationale: as above, emerging data suggest this is not the case, but there could be an interaction with patients who are anxious or have excessive worry. 2. Informing patients about the nocebo effect may cause them to blame themselves if they experience adverse effects. Rationale: speculation |
|  |  | 5 | Same as before for placebo effects. |
|  |  | 6 | 1. There is some literature in psychology more broadly suggesting that "negative" is more impactful than "positive" (see Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). This raises the possibility that discussing negative effects, even when a practitioner is trying to say they are not directly a result of a treatment, could increase attention to these negative symptoms. 2. Related to the above point, some individuals, e.g., depressive individuals, might produce more negative responses once they are told they may occur due to nocebo effects. |
|  |  | 7 | The patient may become confused The patient may experience reduce confidence in the treatment, itself contributing to a nocebo effect |
|  |  | 8 | they might think that they are not taking serious. "it's all in my head" and the like... |
|  |  | 9 | None come to mind right now. |
|  |  | 10 | They may misunderstand the information potentially leading to stronger nocebo effects, or they may feel that they have caused them themselves. |
|  |  | 11 | Talking about negative stuff can cause it (in some cases). |
|  |  | 12 | The main risk is to induce negative expectations that in turn produce negative effects. Another possible disadvantage is bad compliance and adherence to the therapy. |
|  |  | 13 | The major risk is that if the intervention is not done skillfully, patients might get the impression that the clinician is implying that they have a tendency towards hypochondria (“the doctor thinks it’s all in my head!”). A second possible risk is that informing patients about nocebo effects could backfire and paradoxically lead to greater side effects by focusing patient attention on side effects. |
|  |  | 14 | 1) Early treatment of life-threatening side effects may be missed if information on side effects is completely avoided. 2) In patients, who already know the side effects of a specific drug, may develop even more negative expectations and thus nocebo side effects when learning about the nature of nocebo effects. |
|  |  | 15 |  |
|  |  | 16 | None |
|  |  | 17 | The key is in the patient assessment. The major disadvantage is generating new or worsening side effects, or reducing efficacy of current treatments, or threatening the clinician patient interaction "why would you have prescribed the drug that you told me could make me worse"... |
|  |  | 18 | Patients. might feel that their adverse effect / side effect reports may be discounted because they are "just nocebo effects" |
|  |  | 19 |  |
|  |  | 20 | Patients fear of side effects might further increase in a very small subgroup |
|  |  | 21 | It is hard to know at this stage because there have been too few studies done in the area. |
|  |  | 22 | 1. Patients can develop fear, e.g. when the doctor says "don't expect negative consequences of your medication, because then you will develop negative consequences" patients can get into a self-fulfilling prophecy. 2. Patients can experience uncertainty. |
|  |  | 23 | creating fear |
|  |  | 24 | It is easy to overgeneralize and blame oneself if one believes too strongly in nocebo effects as a contributor to illness. It would be very easy for patients to believe that a clinician is trying to invalidate their illness by telling them it is "all in their head" (same with placebo). This could harm the clinician-patient relationship. |
|  |  | 25 | There is a risk that patients may dismiss important side effects or also experience side effects that they would have not otherwise felt. |
| Survey question | | Resp no. | Provided responses (unedited) |
| B4. | *In what manner should patients be informed about nocebo effects in medical healthcare (e.g., letters, brochures, oral information by a doctor or other healthcare provider)?* | 1 | \* Nocebo effects should be informed orally by a treating clinician that the patient trusts. \* Letters, brochures etc can be seen as a cheap way to excuse bad treatment at a clinic... If a leaflet in the waiting room states that "if you feel worse it may not be our fault, it could be you perceiving a nocebo effect" |
|  | 2 | same answer as for placebo |
|  | 3 | I don't think they should be divulged. I cannot think of a scenario where this is necessary. Health websites may want to include this information. |
|  | 4 | Discussion with health care provider along with supporting material |
|  | 5 | Same as before for placebo effects. |
|  | 6 | Unfortunately, I believe this information would be best delivered orally (although that is not to say the information would not have beneficial effects with other delivery methods). This is for several reasons. First, as noted several times above, There is a real concern that patients will misconstrue what nocebo effects are and what they say about the responder. Oral communication would provide opportunities to limit this problem. Second, a large literature in social psychology on belief change shows that face-to-face communication is much more effective in instilling long-term belief change than less engaging forms of message delivery. As such, face-to-face messages would have the greatest impact. Third, the literature and patient-physician interaction finds that patients are most responsive to physician delivered messages, which would help instill the message. |
|  |  | 7 | By the doctor/healthcare provider |
|  |  | 8 | brochures and most importantly, oral information by anyone involved |
|  |  | 9 | Oral information by healthcare provider. |
|  |  | 10 | Though communication with a healthcare provider so potential misunderstandings can be corrected. |
|  |  | 11 | Doesn't matter, as long as it is done in a way that doesn't contribute to causing the patient to experience those effects. |
|  |  | 12 | Oral communication is the best way to convey the information about possible nocebo effects. |
|  |  | 13 | I think patients should be provided with several modes of communication, starting with direct communication by the clinician, but also including brochures, as well as letters and/or online communications. |
|  |  | 14 | By means of written information and short video clips in order to standardize the information on the nocebo effect. |
|  |  | 15 |  |
|  |  | 16 | side effects and the role of negative expectations should be carefully explained by the physician |
|  |  | 17 | Consistency is again the key, particularly within the health care team. |
|  |  | 18 | in person would be best |
|  |  | 19 |  |
|  |  | 20 | All type of possible strategies, both oral and written material with visualization |
|  |  | 21 | See above - not enough research |
|  |  | 22 | oral information and brochures together |
|  |  | 23 | see answer placebo |
|  |  | 24 | Same as placebo - general information. I think in-person communication about the contribution of placebo and nocebo to a particular patient's course of illness must be handled very delicately, and I'm not sure that telling them about placebo and nocebo is the most helpful way to help someone change their mind or behaviors. |
|  |  | 25 | Doctors and healthcare providers first. Then brochures with easy graphic can be provided. |
| Survey question | | Resp no. | Provided responses (unedited) |
| B5. | *Should the term ‘nocebo effect’ be used when communicating about these types of effects?* | 1 | I think the term nocebo is OK, yet it could be better to soften the term by saying "nocebo-like" effects. |
|  | 2 | I think nocebo if adequate. |
|  | 3 | No. |
|  | 4 | As with the placebo effect, I don't personally consider the nocebo effect to be a problematic term, but it may be the case that patients/healthcare providers have negative ideas about the types of people who may experiencing nocebo effects. |
|  |  | 5 | Same as before for placebo effects. |
|  |  | 6 | I again have mixed feelings on this point. First, the term nocebo effect is vague and may come with a lot of unnecessary baggage. As mentioned earlier, some people have negative views of placebo responders and this could be the same for nocebo responders, and this could impede successful communication. That said, there are several key benefits. First, the term is what exists in the research literature, and shifting to a different term for practice only could lead to barriers in translation. Second, there is the problem of what else to call the effect (or basket of effects). One reason the term remains in the literature is, in part, that there is not one single agreed upon alternative term to switch to. With all of this in mind, I would say to keep with the term "nocebo effect" unless there is a fully agreed upon term to switch to (which I would be happy to see). |
|  |  | 7 | No, as per my previous comment 'psychological component of treatment' or similar should be used, and this should be described as potentially positive or negative |
|  |  | 8 | yes, its an established term |
|  |  | 9 | No strong opinion on this. |
|  |  | 10 | I think we can use the term, but I think it is important to make a separation between adverse events of a treatment and actual nocebo effect such as e.g. increase in pain levels compared to a no treatment condition following information or suggestions about a potential pain increase. |
|  |  | 11 | No it should not be used for the following two reasons: 1. It is a jargon term, which should be avoided. 2. Talking about nocebos can cause nocebo effects. |
|  |  | 12 | Yes, nocebo is the most accepted term, thus its use does not generate confusion and misunderstanding. |
|  |  | 13 | I think it’s OK, but not essential, to use the term “nocebo effect.” A downside is that this new term needs to be explained. So, it might be simpler to simply refer to negative expectancies. |
|  |  | 14 | The term "nocebo effect" can be easily explained to the patient as the counterpart of the "placebo effect", which helps the patient to understand this - largely unknown - phenomenon. |
|  |  | 15 |  |
|  |  | 16 | good question, not sure |
|  |  | 17 | Yes |
|  |  | 18 | no, this term is not as commonly known |
|  |  | 19 |  |
|  |  | 20 | Not necessarily, it could be replaced by "worrying about side effects etc". |
|  |  | 21 | Yes - it is an established term with a clear meaning. |
|  |  | 22 | yes, I think it would be appropriate, however consider the initiative of Fabrizio and Dimos. |
|  |  | 23 | yes, it should be used, but needs more explanation than placebo |
|  |  | 24 | I'm not sure that people will understand what it means or be familiar with it. I'm not sure whether this would be helpful or not. |
|  |  | 25 | Yes, the term 'nocebo effect' can be used as long as patients are educated about it. |
| Survey question | | Resp no. | Provided responses (unedited) |
| B6. | *Could there be other terms that might be more preferable to use when communicating about nocebo effects?* | 1 | \* Nocebo-like effect \* Negative effects on bodily symptoms due to negative expectations |
|  | 2 | Again - you can explain that these are negative psychological and physiological responses induced by negative expectation, fear, anxiety and negative prior experience |
|  | 3 | see answers given above |
|  | 4 | Expectancy effects; mindset effects |
|  | 5 | Same as before for placebo effects. |
|  | 6 | I do not have any in mind. |
|  | 7 | Psychological component of treatment or similar |
|  | 8 | No |
|  |  | 9 | "Negative placebo effects" might be more understandable to the patient. They should also be informed about the problem of misattribution, in a non-technical way (e.g., without use of the term attribution). |
|  |  | 10 | Self-fulfilling prophecy in medicine |
|  |  | 11 | (Negative) expectancy. |
|  |  | 12 | As for placebos, both the terms nocebo effects and negative expectations should be used. |
|  |  | 13 | Negative expectancies or negative expectations. |
|  |  | 14 | "effect of negative expectancy" |
|  |  | 15 |  |
|  |  | 16 | more descriptive, such as negative expectations |
|  |  | 17 | Expectancy, threat |
|  |  | 18 | self-regulating brain pathways, expectancy, etc. |
|  |  | 19 |  |
|  |  | 20 | negative expectancies |
|  |  | 21 | Not that I can think of |
|  |  | 22 | In the context of talking about nocebo effects it would be important to stress that expectancy plays a central role. |
|  |  | 23 | -- |
|  |  | 24 | I think there is a wider set of concepts that would be helpful - including thoughts, attitudes, appraisals, emotions. And there are learned effects. As with placebo effects, I think expectancy is only one aspect. I think helping patients directly deal with the patterns of thought and behavior management surrounding illness and recovery is the domain of psychotherapy (of various sorts), and I'm not sure how big an impact explaining placebo and nocebo effects will have on patient outcomes. Explaining placebo/nocebo could help patients understand why not all improvements/worsening in symptoms are caused by a treatment (e.g., drug) or physiological (bodily) problem. |
|  |  | 25 | Negative placebo effects |
| Survey question | | Resp no. | Provided responses (unedited) |
| B7.a | *Are there any potential patient groups or other populations that should not be informed about nocebo effects?* | 1 | \* Individuals with health anxiety might be sensitive to this, as they already have a health problem that is probably similar to nocebo effects. If they are enrolled in treatment, they might be encouraged not to think too much about nocebo effects, and they should thus not be exposed to more nocebo info. |
|  | 2 | I don't know. |
|  | 3 | all patients for answers given above |
|  | 4 | It could be the case that explaining the nocebo effect to anxious/worrisome patients has negative effects - but this needs to be empirically tested. The same issues apply here regarding populations with e.g. cognitive impairment. |
|  | 5 | Same as before for placebo effects. |
|  |  | 6 | In cases where there are data indicating that nocebo effects do not alter patient outcomes, I do not see an advantage in information patients about them. Also, I worry that providing more information about potentially negative effects could lead to some individuals "finding them"--such as those who have anxiety disorders or have chronic depression. |
|  |  | 7 | See comment regarding the same question in the context of placebo effects |
|  |  | 8 | patients, which are not able to understand the concept |
|  |  | 9 | There are conditions (e.g., infertility) that have been found to not be affected by placebos. |
|  |  | 10 | No, but again I think it is important not to make generalizations that we do not have empirical evidence for. |
|  |  | 11 | No |
|  |  | 12 | Differently from placebos, in this case there are some possible populations that are potentially at risk of communicating about nocebos. Their identification is a challenge for placebo research and I believe a priority in future studies. |
|  |  | 13 | One should tread very carefully with patients who might take offense at being labeled as a hypochondriac. Speaking about nocebo effects could result in a negative reaction to the clinician. |
|  |  | 14 | All patients, who receive pharmacological or surgical treatments known to elicit significant side effects. |
|  |  | 15 |  |
|  |  | 16 | No |
|  |  | 17 | No. Information should be tailored to assessment. Higher risk patients may need a different strategy than lower risk. |
|  |  | 18 | I don't think so. |
|  |  | 19 |  |
|  |  | 20 | No |
|  |  | 21 | There is not enough research available to answer that question |
|  |  | 22 | the same as I mentioned in the placebo chapter. |
|  |  | 23 | see above |
|  |  | 24 | I'm not sure. |
|  |  | 25 | Patients may overdevelop side effects if not adequately informed. |
| Survey question | | Resp no. | Provided responses (unedited) |
| B8. | *General remarks* | 1 | No |
|  |  | 2 | No |
|  |  | 3 | Social psychology studies show that the very act of flagging significant information and then concealing it increases the value of the hidden facts; in other words, it intensifies listeners’ desire to uncover such knowledge. This is why psychologists counsel (contra conventional wisdom) that telling someone a secret and then issuing a prior restraint phrase (such as telling them not to tell anyone else) acts directly to undermine the request. The idea of authorized concealment is a philosophical answer to a problem, divorced from the practical constraints of human psychology. I suggest that more work should be undertaken to understand how to frame disclosures (see Gigerenzer) about side effects to minimize them, doing so in an ethical way. |
|  |  | 4 | N/A |
|  |  | 5 | Same as before for placebo effects. |
|  |  | 6 | There is a growing literature on message framing and nocebo effects that suggests nocebo effects can sometimes be reduced when framed positively (Faasse et al., in press, Annals of Behavioral Medicine). This literature could inform how to best communicate about nocebo effects to patients as well. That is, positively framing nocebo effects (e.g., explaining what nocebo effects are and then tell the patient that, say for example, 82 people out of 100 will NOT get a nocebo symptom, instead of saying that 18 out of 100 people will get one) could help further minimize their occurrence. |
|  |  | 7 | The nocebo effect is potentially a far greater problem than the placebo effect. However, it is a very difficult idea to put across to patients in day to day practice |
|  |  | 8 | No |
|  |  | 9 | No |
|  |  | 10 | I think it is important to conceptually separate adverse events from nocebo effects (cf previous comment) |
|  |  | 11 | None, thank you for designing this survey. |
|  |  | 12 | Mass phenomena should be investigated in more detail, as I believe there are at the very heart of many psychogenic illnesses. |
|  |  | 13 | No additional comments. |
|  |  | 14 | Informing patients about the risk of developing nocebo effects appears even more important to me than informing patients about placebo effects (except before OLP treatment), since only the knowledge about nocebo effects can help to avoid them actively. |
|  |  | 15 |  |
|  |  | 16 | n/a |
|  |  | 17 | No |
|  |  | 18 | No |
|  |  | 19 |  |
|  |  | 20 | NA |
|  |  | 21 | No |
|  |  | 22 | I think the duty to inform patients should be considered. |
|  |  | 23 | -- |
|  |  | 24 |  |
|  |  | 25 | Framing effects, authorized concealment and tailored ad hoc communication should be used. |
| C. Training health care providers in providing information about placebo and nocebo effects | | | |
| Survey question | | Resp no. | Provided responses (unedited) |
| C1. | *What aspects of placebo effects (and their mechanisms) should be included when training health care providers in providing information about placebo effects to patients?* | 1 | No too detailed. 1. They should be told about ALL treatments having a non-specific treatment component, even potent pharmacological treatments such as morphine. 2. The placebo effect is reducing symptoms, and may not tap the disease itself. 3. Placebo effects may occur in many conditions, but mainly those where symptoms are regulated by the central nervous system, such as pain, anxiety, nausea, itch etc. 4. The potential benefit from a treatment should be clearly conveyed to the patient in order to benefit from KNOWING about the treatment, as demonstrated in open - hidden paradigms. If the patient doesn't know they are taking a treatment, or what a treatment can improve, they miss out on the expectation part. 5. They should be informed about the expectancy paradox where positive expectations should be induced, but not be too far from an expected outcome as this will undermine the treatment completely. 6. The neurobiology underlying some forms of placebo effects should be exemplified, as to say that the effects are reflected in the body. |
|  | 2 | health care providers should be informed about the existence of these effects, their contribution to treatment outcomes - that are not restricted to placebo treatments!, as well as psychological and neurobiological and physiological mechanisms. Effect sizes are also important as these vary substantially for subjective vs. physiological/objective outcome measures. One should also be informed about the importance of interindividual differences. Importantly, health care providers should be informed /empowered about their ability to modulate/harness these responses by e.g. communication. |
|  | 3 | All of the above: size of effects, conditions for which placebo effects are relevant; possible mechanisms. How best to disclose effects in understandable accessible ways. Relevant ethical issues should be included in training providers. |
|  | 4 | Health care provides should be trained about: 1) Theory of placebo effects 2) Neurobiology and pharmacology of placebo effects 3) Evidence regarding conditions that are responsive vs non-responsive to placebo effects 4) Ethics of placebo use in clinical trials and clinical practice 5) Communication strategies that can non-deceptively enhance placebo effects |
|  | 5 | The health care providers should know enough to answer questions from patients, so I would say they need to get an overview of the current literature and at least roughly understand the mechanism. |
|  | 6 | 1. Placebo effects occur through natural and adaptive psychobiological mechanisms. Everyone can benefit from them at some point, and it is not something that just some people are "susceptible to". 2. They are "real", and have the capability to produce neurobiological changes, sometimes in the same pathways as drugs. 3. They occur through conditioning (learning experience) and expectations. 4. Even small cues in the environment, such as the perceived provider warmth and competence can strengthen the effect (Howe et al., 2017). 5. Situations can be designed to enhance placebo effects by taking these factors into account, resulting in beneficial effects. 6. There is evidence that placebo effects can work when people know about the effect. |
|  |  | 7 | Teaching of mechanisms is critical, especially neurobiological and physiological as opposed to learning/expectation. Many training programs in medicine & health treat the life science aspects as rigorous and the social science aspects as less so. It is therefore important that the life science data on placebo effects is presented. Magnitude is so variable among individuals that ES is problematic |
|  |  | 8 | health care provider should receive a thorough training in placebo and nocebo effects. thus, they should be knowledgeable about effects, mechanisms, limits, possible application and the like |
|  |  | 9 | Health care providers should be given up-to-date information about effect sizes and the variables that can impact them. These include: Expectancy Conditioning Condition being treated Color of pills Mode of administration (e.g., pills, injections, surgery) And the various other factors that have been identified empirically. |
|  |  | 10 | Yes, I think it should be as nuanced as possible including differences between diseases, mechanisms etc. |
|  |  | 11 | This is an important part of all healthcare interactions, so everything: 1. Mechanisms 2. Evidence (systematic reviews, randomized trials) 3. How to maximize placebo effects |
|  |  | 12 | A good training should include everything, from the neurobiological to the psychological mechanisms and from the clinical aspect to ethics. |
|  |  | 13 | For healthcare providers, I would certainly emphasize the important mechanisms of placebo and nocebo effects. Otherwise, one might risk not being taken seriously by medical personnel. However, I would calibrate this depending on the level of clinician. Focusing of effects sizes and mechanisms is likely to be more important with doctoral level clinicians, as opposed to master’s level, and even less important to bachelor’s level clinicians. |
|  |  | 14 | Health care providers would need detailed information on the placebo effect, especially with regard to placebo effect sizes in different conditions, but also limitations of the placebo effect. Information on the most important mechanisms should also be included in order to convince themselves and the patients that placebo effects are true effects, which have a neurobiological basis. |
|  |  | 15 | Health care providers should be taught about placebo mechanisms. I am not sure that patients should be taught about placebo effect. |
|  |  | 16 | They should be informed on the biological mechanisms, which makes it easier to explain it to patients |
|  |  | 17 | Conceptual points (placebo effects exist when no placebo is given), a mechanisms overview that underscores the specificity of the effects and also that there are many, and then the harnessing of these effects as part of routine daily care. |
|  |  | 18 | neurobiology and cognitive theory should be included |
|  |  | 19 | Same as responses to A1 but with an emphasis on what THEY can do AS PROVIDERS to help establish a warm and competent social context and useful mindsets in their patients as well as how they can help patients establish more useful mindsets. |
|  |  | 20 | the most important mechanisms and average effect sizes should be mentioned |
|  |  | 21 | It depends on what context the information is to be given to patients. |
|  |  | 22 | neurobiological underpinnings psychological underpinnings Psychological mechanisms including classical conditioning, social learning, expectancies) effects size different types of placebo effects clinical studies dealing with placebo effects Ethics / ethical aspects using placebos |
|  |  | 23 | contextual analysis and treatments, coping with knowledge and medical skills of patients (groups and populations) ethical aspects |
|  |  | 24 | I think which kinds of illnesses/symptoms/outcomes can be affected could be explained. I think explaining some neurobiology might be helpful, in accessible terms. The effect sizes and duration, and the fact that there are some physiological effects but other physiological measures are resistant to placebo/nocebo, could be helpful. |
|  |  | 25 | When training health care providers about informing patients about placebo effects, historical, biological, and translational aspects should be provided. |
| Survey question | | Resp no. | Provided responses (unedited) |
| C2. | *What aspects of nocebo effects (and their mechanisms) should be included when training health care providers in providing information about nocebo effects to patients?* | 1 | Not too detailed. 1. They should know that nocebo effects may occur, so that the information about possible side effects and worsening is balanced. They should inform the patient, as this is an important ethical point, but not stress the negative side too much. It should balance the positive info. 2. Nocebo effects are also accompanied by measurable neurobiological processes (just like placebo). |
|  | 2 | see above. |
|  | 3 | Yes - to underscore the importance of framing patient information in ways that benefit patients and meet demands of honesty. All of the above: side of effect; mechanisms. Also ethical issues related to nocebo effects should be included in training. |
|  | 4 | Health care provides should be trained about: 1) Theory of nocebo effects 2) Neurobiology and pharmacology of nocebo effects 3) Evidence regarding conditions that are responsive vs non-responsive to nocebo effects 4) Communication strategies that can non-deceptively inhibit the nocebo effect |
|  | 5 | The health care providers should know enough to answer questions from patients, so I would say they need to get an overview of the current literature and at least roughly understand the mechanism. |
|  | 6 | 1. Nocebo effects occur through natural psychobiological mechanisms. Everyone can experience them at some point, and it is not something that just some people are "susceptible to". 2. They are "real", and have the capability to produce neurobiological changes. 3. They occur through conditioning (learning experience) and expectations. 4. Situations can be designed to reduce nocebo effects (e.g., message framing) by taking these factors into account, resulting in beneficial effects. |
|  |  | 7 | As per the above plus the idea that patients must be given some indication that a treatment is likely to be effective. I have heard of practitioners telling patients "This probably won’t work but...." or of patients saying "You can give it to me but it won’t work because it didn't work last time....". Such explicit expectations are all too often allowed to pervade the clinical setting. |
|  |  | 8 | same as in C1 |
|  |  | 9 | Same as for placebo effects. |
|  |  | 10 | Yes, similar as placebo effects (cf above) |
|  |  | 11 | This is an important part of all healthcare interactions, so everything: 1. Mechanisms 2. Evidence (systematic reviews, randomized trials) 3. How to avoid nocebo effects |
|  |  | 12 | As for placebos (see above). |
|  |  | 13 | My answer is the same as for placebo effects above. |
|  |  | 14 | Available information on nocebo effect sizes in different conditions should be included, as well as the most important underlying mechanisms including anxiety, learning and negative expectation. |
|  |  | 15 | Health care providers should be taught about nocebo effects. I don't think we know enough yet about mechanisms. I am not sure that patients should be taught about nocebo effects. |
|  |  | 16 | the extreme relevance for side-effects |
|  |  | 17 | Nocebo effects are real, specific and can reduce outcomes of our treatments. |
|  |  | 18 | yes, neurobiology and cognitive theories should be included yes, neurobiology and cognitive theories should be included |
|  |  | 19 |  |
|  |  | 20 | the most important mechanisms and average effect sizes should be mentioned |
|  |  | 21 | Information that is simple and understandable to patients and is relevant to their care. |
|  |  | 22 | neurobiological underpinnings psychological underpinnings Psychological mechanisms including classical conditioning, social learning, expectancies) effects size different types of nocebo effects clinical studies dealing with nocebo effects Ethics / ethical aspects using nocebos |
|  |  | 23 | see above |
|  |  | 24 | Same as above. |
|  |  | 25 | When training health care providers about informing patients about placebo effects, historical, biological, and ethical aspects should be provided. |
| Survey question | | Resp no. | Provided responses (unedited) |
| C3.a | *Please list the groups of healthcare providers you believe should be trained in providing information about placebo and nocebo effects. Please list them in order of priority, listing the groups you consider to be most important first.* | 1 | \* doctors \* nurses \* physiotherapists \* psychologists |
|  | 2 | training about placebo and nocebo effects and the importance of communication is important for anyone being involved in treating patients. If I have to prioritize any group I would say: physicians, nurses and pharmacists but physiotherapists, etc. are similarly important. |
|  | 3 | 1. Primary care doctors 2. Nurse practitioners & physician assistants 3. Nurses 4. Specialist physicians. |
|  | 4 | Medical doctors (including psychiatrists) Pharmacists Psychologists Nurses |
|  | 5 | This is hard for me, since I am in communication and not in medicine. But this would be my list: \* General practitioners \* Nurses \* Specialists \* Pharmacists \* Therapists |
|  | 6 | I'm not familiar with all the different possible types of providers, but believe the training would be valuable for any health care worker who interacts with patients about their planned treatment. |
|  | 7 | Doctors/General Practitioners/Physicians Mental health specialists/psychiatrists |
|  | 8 | all health care providers! |
|  | 9 | Physicians Nurses Psychotherapists (for considerations when other treatments are being considered) CAM practitioners |
|  | 10 | Doctors, surgeons, nurses, psychologists, psychiatrists, physiotherapists etc |
|  | 11 | All healthcare providers. Most importantly 1. General practitioners / family doctors 2. Pediatricians 3. Palliative care practitioners |
|  | 12 | I have no specific suggestions, as all health professionals who interact with patients would benefit from such training. |
|  | 13 | I think that the first priority should be any healthcare clinicians who prescribe or dispense medications (e.g., physicians, nurse practitioners, nurses, and pharmacists). In addition, any healthcare personnel who perform procedures such as surgery or physical therapy should also be the highest priority. The second priority would be ancillary personnel (e.g., receptionists, nursing assistants, etc.) who may not directly provide treatments, but who can impact the patient experience. Complementary and integrative practitioners are likely to already pay attention to expectancies and the therapeutic relationship, and therefore they are the third priority. Finally, the fourth and lowest priority would be most mental health practitioners. The only exception to this would be mental health clinicians who primarily prescribe medications (e.g., psychopharmacologists). This category of provider should also be in the first priority group. |
|  |  | 14 | - mainly doctors and nurses, - physiotherapists and members of other health professions - but also managers of hospitals and clinics |
|  |  | 15 | All physicians should be taught during med school. |
|  |  | 16 | Actually, all of them from the physician to the nurse |
|  |  | 17 | Every person needs education as consistency is the key. This will depend on the model of care. Central is the primary care (first contact practitioner) - be this a physical therapist, or medical doctor. In the medical setting, both family/general physicians need to have messages that align to specialty colleagues. Training one and not the other can undermine the message and effect. Training should be extended to administrative, hospital and practice staff as these are often the first point of contact and experience with a service |
|  |  | 18 | 1. those groups perceived by patients to have the most "power" in the clinician / patient dyad 2. Those groups who have most face-to-face discussion with patients |
|  |  | 19 | All healthcare providers. When we train providers at Stanford with our Medicine Plus Mindset training we address everyone in the clinic: providers, PCCs, nurses, behavioral specialists and front/back desk staff because we feel that everyone has a role to play in shaping the social context and patient mindsets (in some ways, the non-physician parities have more access to do so!) |
|  |  | 20 | all healthcare providers, 1) general practitioners 2\_ medical specialists 3) nurses 4) paramedici 5) psychologists etc. |
|  |  | 21 | Doctors (including both GPs medical specialists), pharmacists, nurses, psychologists, physiotherapists, occupational therapists, |
|  |  | 22 | Anesthetists (we already do this!!) Pain therapists (we already do this!!) Dermatologists Allergists Nurses (we already do this!!) at least ever healthcare provider |
|  |  | 23 | -- |
|  |  | 24 | I think doctors and nurses, physiotherapists, psychologists, could all benefit. I don't have a priority order in mind. |
|  |  | 25 | General medicine, pain medicine, pediatrics. |
| Survey question | | Resp no. | Provided responses (unedited) |
| C4. | *Concerning the format of a training in providing information about placebo and nocebo effects: do you believe such a training should be standardized, or specialized?* | 1 | There should be one module that is general for all health care providers, about the basic mechanisms and key evidence. Then, there can be a more specialized module where each profession will have more info about their own treatments. E.g. psychotherapists may hear more about common factors in psychotherapy, and surgeons may get info about the placebo evidence from surgical trials. |
|  | 2 | Ideally such training involves both general and specialized components. |
|  | 3 | Standardized for providers of all kinds (i think the training should be relatively basic and rudimentary). Patient groups should have access to the same information but it needs to be presented in a more accessible and understandable way and be tailored for different demographic groups (less educated individuals, for example). |
|  | 4 | I think it should depend on the specific group of healthcare providers, e.g. for pharmacists it might focus on communication of adverse events. |
|  | 5 | The training should fit in a broader communication training on how to inform patients. It should be specialized for different groups of health care providers and each training should explain that different patient need different information. |
|  | 6 | I believe that, as with psychological therapy training manuals (e.g., CBT), it would be best to have a standard/routinized basic set of procedures for all situations which would then be tailored to fit specific treatments/patients. This is often the case, for example, with CBT for anxiety disorders. They are treatment manuals that describe training for CBT training for anxiety, but then these are tailored to fit specific contexts (e.g., panic disorder). |
|  |  | 7 | Standardized |
|  |  | 8 | Both |
|  |  | 9 | The basic information is the same for all providers |
|  |  | 10 | I think it should be specialized so it seems fits each group of health care providers and each group of patients and ideally based on empirical evidence. |
|  |  | 11 | It should be longitudinally embedded within medical school curricula and continuing education. I believe it should be standardized and specialized. |
|  |  | 12 | The same training should be provided to all health care providers. |
|  |  | 13 | The training should be specialized to match the educational level of the provider. Doctor level clinicians should be provided with more detailed explanations neurobiological explanations, but such detail might be confusing to less highly educated personnel. |
|  |  | 14 | 1) general information should be provided in a standardized manner 2) specialized training for certain areas of medicine, such as pediatrics, anesthesia, psychiatrists, etc., should be added, as needed. |
|  |  | 15 | Not sure. |
|  |  | 16 | Not necessarily, although it might help to achieve a certain standard. |
|  |  | 17 | 1. Didactic information 2. Interactive discussion 3. Applied case scenarios (so all involve appreciate the significance of the material) Training should be at a basic level for all that are involved in the patients journey, plus additional higher level training for individual clinicians. |
|  |  | 18 | standardized would be easiest to implement |
|  |  | 19 | A very similar training can be given, making sure that the examples and discussions apply to all parties. |
|  |  | 20 | standardized elements to make it most cost-effective, e.g. by virtual reality |
|  |  | 21 | I don't think it is possible to standardize as each setting and patient group will be different and occur in a unique context. |
|  |  | 22 | Such a training should be specialized to every profession. |
|  |  | 23 | -- |
|  |  | 24 | I think there could be multiple different types of training that people develop, and they need not be uniform. People will have diverse interests in explaining placebo effects and there could be multiple versions. Some programs could be standardized by interested groups, based on consensus views. |
|  |  | 25 | I think the same training may be provided to all health care providers but not to all the patient groups. Patients differ and the training should be tailored. |
| Survey question | | Resp no. | Provided responses (unedited) |
| C5. | *In which format should health care providers be trained in providing information about placebo and nocebo effects? (e.g., face-to-face lectures or training, an online module or course, information leaflets, or other types of training?)* | 1 | \* Face to face training is probably most satisfying for them, and the information will stick better. \* An online module may be a nice supplement, where a basic module is prepared with info that is general, then a second module with profession-specific information. In the online course, there can be some key references that can be of interest. |
|  | 2 | This will be a matter of feasibility. Face-to-face is probably the best, but excellent video tutorials could also be of help. I doubt that written information will be enough. But all this needs to be tested empirically |
|  | 3 | face to face seminars as part of curricula. This might include modules or courses too. |
|  | 4 | I think it would be best to include this in formal tertiary education but for those already completed face-to-face workshops and online-modules would be appropriate. |
|  | 5 | The general communication training should involve at least some practice in holding a conversation about placebo and nocebo-effect - so there needs to be face-to-face training with fellow students. |
|  | 6 | Face-to-face or on-line training. |
|  | 7 | Methods consistent with the teaching of other areas of their disciplines |
|  | 8 | face to face but also online |
|  | 9 | Lectures, workshops, online courses |
|  | 10 | Face-to-face lectures |
|  | 11 | We should follow standard evidence based guidelines for teaching here. Placebo experts should not invent their own rules for education, let's follow what is already known. |
|  | 12 | Face-to-face lectures are the most appropriate. |
|  | 13 | Again, I think that that face-to-face lectures with the opportunity to ask questions is by far the best, but of course, on-line courses, and written information would also be helpful. |
|  |  | 14 | face-to-face lectures and workshops. |
|  |  | 15 | Not sure. |
|  |  | 16 | Good question, I do not know. |
|  |  | 17 | A mixture of online then face to face. Providing information is an applied skill and should then be practiced in workshop format. |
|  |  | 18 | online module would be best to disseminate |
|  |  | 19 | We started with face to face and are designing an online course now |
|  |  | 20 | many different forms both online and face-fo-face material |
|  |  | 21 | All settings depending on the learning methods most appropriate for the group |
|  |  | 22 | lectures training long term supervision !!! |
|  |  | 23 |  |
|  |  | 24 | Health care providers should be trained to talk with people person-to-person. |
|  |  | 25 | All the examples listed above are valuable such as face-to-face lectures or training, online modules or courses, information leaflets, or other types of training such as focus groups. |
| Survey question | | Resp no. | Provided responses (unedited) |
| C6. | *How long should a training about providing information about placebo and nocebo effects be? (e.g., a full-time course (for example, once weekly for 6-weeks) when training to become a doctor or nurse, or a single 1 hour training session?)* | 1 | \* All health care providers should have a full day of information and training, or half a day. It will not be required to have a full week. A follow-up would be great, where each professional can reflect on their work and see if the training led to a difference in everyday practice. |
|  | 2 | again - depends on feasibility. Ideally it would be obligatory to be trained in placebo and nocebo effects and also to be tested in your communication skills. This should be part of the training to become a doctor and/or nurse but also repeated if you want to keep your license etc. |
|  | 3 | Probably 2 hours as part of curriculum. |
|  | 4 | This is very difficult to answer, but for medical students, I would definitely think more than 1 hour. I would think at the very least 3-4 1 hour lectures with associated tutorial content. |
|  | 5 | One afternoon in a longer communication training program of six weeks sounds feasible and useful. |
|  | 6 | This would depend on the content that is required. That said, my gut is that a two-session course (or two-hr) would work, one with the effects explained and techniques for engaging the mechanisms also explained. Then a second session//hr in which trainees work through mock scenarios in which they inform fake patients about placebo/nocebo effects and scenarios in which they are given a chance to point out contextual features they could change to aid placebo effects/reduce nocebo effects. |
|  | 7 | Part of standard medical training |
|  | 8 | full-time seems appropriate |
|  | 9 | No answer |
|  | 10 | Perhaps a full day of theory and then supervised following clinical practice. |
|  | 11 | It should be longitudinally embedded within medical school, for example a half day per term, or a full day per term. |
|  | 12 | A full-time course is the most appropriate. |
|  |  | 13 | A longer course would be preferable (i.e., 6 hrs. vs. 1 hr) to overcome any resistance to the idea that placebo and nocebo effects are genuine. Ironically, a longer course might be even more important with highly trained clinicians (e.g., MDs) to convince them that placebo and nocebo effects are, perhaps, equally as important as the technical aspects of medical care in which they have been so heavily trained. |
|  |  | 14 | full-time course |
|  |  | 15 | Not sure. |
|  |  | 16 | I think healthcare provider are trained on many things for a long time that are less important, so I guess a one week half-day seminar would be good, i.e. 5x3hrs |
|  |  | 17 | Interval training. Theory/online for several hours over several weeks followed by a face to face applied workshop (3hrs) |
|  |  | 18 | several hour webinar |
|  |  | 19 | our training is 2 hours with a 1 hour follow up |
|  |  | 20 | at least 3 to 5 hour training |
|  |  | 21 | It depends on what the other competing learning needs are. |
|  |  | 22 | Full-time-course starting maybe 2 days and then dependent on the education supervision. For Psychotherapists supervision could comprise 10 appointments. |
|  |  | 23 |  |
|  |  | 24 | Brief, like 1 hour. That would get people to do it. |
|  |  | 25 | Hard to say. |
| Survey question | | Resp no. | Provided responses (unedited) |
| C7. | *When should health care providers be trained in providing information about placebo and nocebo effects? (e.g., when training to become a doctor/nurse, and then in the beginning stage of this training or before finishing? As a post-graduate course? Booster courses?)* | 1 | During the training to become a doctor/nurse/psychologist etc. Then a booster session in clinically active health care professionals. |
|  | 2 | all of these. Ultimately, it would be ideal if you would only keep your license and remuneration if you proof on a regular basis that you have the necessary knowledge and communication skills to harness placebo and avoid nocebo effects for the benefit of the patient. |
|  | 3 | within standard medical or nursing education. |
|  | 4 | During training perhaps towards the end of training for those currently studying. Others could do online modules if they have already completed. |
|  | 5 | Somewhere in the general training - plus a booster course for those who left academia a while ago (there I would put it as an afternoon in a broader course on placebo and nocebo effects) |
|  | 6 | In medical school and then offered as a booster. |
|  | 7 | Part of standard medical training |
|  | 8 | at the beginning, placebo is the basis! |
|  | 9 | During initial training plus subsequent CME |
|  | 10 | Preferably though out the education as they will probably understand this information at different levels as they progress (and it may also help them remember this information better). |
|  | 11 | This should be part of communication skills training. |
|  | 12 | Both when training to become doctor/nurse and in the post-degree stage. |
|  | 13 | In my opinion, learning about placebo and nocebo effects should occur at all stages of clinical training. |
|  | 14 | as often as possible: - during training both at the beginning and before finishing; - as part of further education to refresh first knowledge and to educate people without any knowledge. - as booster courses for certain specialties, - etc. |
|  | 15 | Not sure. |
|  | 16 | Once their training gets to the more clinical stage |
|  | 17 | 1st year undergraduate, clinical years, specialty training then as booster courses as part of ongoing learning. It must be integrated. |
|  | 18 | post-graduate course, when they start having more contact with patients |
|  | 19 | we are training primary care providers but working on establishing this as part of med school curricula as earlier is important. |
|  | 20 | during their education (e.g. co-assistants during the medical education) and repeatedly later on, e.g. at least once in 2 years a general session |
|  |  | 21 | I don't think the stage matters |
|  |  | 22 | Medical, psychological students should hear about placebo effects very early in their study and nurses too. |
|  |  | 23 |  |
|  |  | 24 | There are opportunities at all career stages. Training/education for students would be particularly helpful. |
|  |  | 25 | Training should be provided as part of the core curriculum for being a doctor/nurse, the beginning stage of this training, as post-graduate course and CME for continuous education of health care providers. |
| Survey question | | Resp no. | Provided responses (unedited) |
| C8. | *General comments* | 1 | Training should be clearly evidence based, i.e. refer to key publications. Otherwise it is just one of these "inspirational" modules that is not based in data. |
|  | 2 | No |
|  |  | 3 | Placebo in RCTs should also be included. I argue there are 2 distinctive uses of placebo - clinical uses, and in RCTs - with separate definitions, and goals unique within their respective contexts. This survey has focused on clinical use but it would also be valuable for providers to have clear understanding of placebos as 'controls' not just as 'treatments for eliciting placebo effects' Also not discussed: provide behaviors in eliciting placebo effects; and the incidental ways that placebo effects can potentially be elicited by situational factors (whether a physician is wearing a uniform; the quality of the office/waiting room environment) etc. |
|  |  | 4 | N/A |
|  |  | 5 | It would be great to ask more patients how they would prefer to receive information about placebo and nocebo effects - and to test how giving information works best. |
|  |  | 6 | Not at this time. |
|  |  | 7 | A major problem that I'm not sure this survey addresses is that the biomedical sciences have a strong bias against the idea of placebo effects. Content delivered by either a teacher (in medical school) or a practitioner (in surgery) who does not 'believe' in the effects, will not eb effective. There is a PR war to be won also. |
|  |  | 8 | - |
|  |  | 9 | No |
|  |  | 10 | I think it is important to do it carefully so they really know what they are talking about - otherwise I am not certain that it will have an effect. |
|  |  | 11 | No |
|  |  | 12 | The crucial point here is that the training should emphasize that placebos work in some diseases whereas they do not work in others. There is today the tendency to believe in two opposite ways: some people believe placebos never work, whereas other people believe they work everywhere. |
|  |  | 13 | No additional comments. |
|  |  | 14 | In my view, we still need more robust data on the size of placebo/nocebo effects in different conditions before we can start such a wide educational program. We gained a lot of knowledge on placebo/nocebo effects under laboratory conditions, but many important questions with regard to placebo/nocebo effects in daily clinical practice are still unanswered. |
|  |  | 15 | No |
|  |  | 16 | n/a |
|  |  | 17 | No |
|  |  | 18 | SIPS should formulate the webinar content for this training module |
|  |  | 19 | We have an established training that we have disseminated to all Stanford primary care clinics and other clinics in the Bay Area. Happy to share more details about it and looking forward to discussing this issue broadly at the conference in July! |
|  |  | 20 | NA |
|  |  | 21 | No |
|  |  | 22 | Nothing else. |
|  |  | 23 |  |
|  |  | 24 |  |
|  |  | 25 | Hopefully, we will have a vivid conversation in Leiden. |

*Note. a due to time constraints on the second Delphi questionnaire and the number of statements derived from the first survey, all statements derived from questions A2, A3, A7, B2, B3, B7, and C3 were dropped for the second Delphi round (as they were rated by the workgroup members as less relevant for the development of recommendations for informing patients and training healthcare providers)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Part A. Informing patients about placebo effects** | | | | | |
| **A1. What should patients be told about placebo effects?** | | | | | |
|  |  | n | M | SD | min-max |
| A1.3. | Patients should be informed that placebo effects are genuine and beneficial effects | 23 | 8.3 | 1.9 | 5.0 – 10.0 |
| A1.4. | Patients should be informed that placebo effects represent a genuine reaction of the body that promotes healing and treatment response | 23 | 8.0 | 2.1 | 2.0 – 10.0 |
| A1.9. | Information provided to patients needs to be individually tailored, and is dependent on the context. | 23 | 9.0 | 1.3 | 6.0 – 10.0 |
| A1.16. | Any information provided must be evidence-based and not overstate the efficacy of the placebo effect | 23 | 9.6 | 0.9 | 7.0 – 10.0 |
| **A4. In what manner might patients be best informed about placebo effects in medical healthcare (e.g., letters, brochures, oral information by a doctor or other healthcare provider)?** | | | | | |
|  | *No statements with high consensus* |  |  |  |  |
|  |  |  |  |  |  |
| **A5. Should the term ‘placebo effect’ be used when communicating about these types of effects?** | | | | | |
|  |  | n | M | SD | min-max |
| A5.5. | Using the term placebo effect is fine, provided that it is explained carefully and people are informed well | 23 | 8.9 | 1.1 | 7.0 – 10.0 |
| **A6. Could there be other terms that might be more preferable to use when communicating about placebo effects?** | | | | | |
|  |  | n | M | SD | min-max |
| A6.8. | Using iatrogenic effect may be preferable | 13 | 0.8 | 1.1 | 0.0 – 3.2 |
|  |  |  |  |  |  |
| **Part B. Informing patients about nocebo effects** | | | | | |
| **B1. What should patients be told about nocebo effects?** | | | | | |
|  |  | n | M | SD | min-max |
| B1.6. | Whether and what patients should be told about nocebo effects is depends on the context (e.g., the patients comprehension level, the specific condition and treatments proposed) | 22 | 8.4 | 1.7 | 3.8 – 10.0 |
| **B4. In what manner might patients be best informed about nocebo effects in medical healthcare (e.g., letters, brochures, oral information by a doctor or other healthcare provider)?** | | | | | |
|  | *No statements with high consensus* |  |  |  |  |
|  |  |  |  |  |  |
| **B5. Should the term ‘nocebo effect’ be used when communicating about these types of effects?** | | | | | |
|  | *No statements with high consensus* |  |  |  |  |
|  |  |  |  |  |  |
| **B6. Could there be other terms that might be more preferable to use when communicating about nocebo effects?** | | | | | |
|  | *No statements with high consensus* |  |  |  |  |
|  |  |  |  |  |  |
| **Part C. Training health care providers in providing information about placebo and nocebo effects** | | | | | |
| **C1. What aspects of placebo effects (and their mechanisms) should be included when training health care providers in providing information about placebo effects to patients?** | | | | | |
|  |  | n | M | SD | min-max |
| C1.1. | Health care providers should be taught about the mechanisms by which placebo effects are likely to occur, e.g., classical conditioning, social learning, expectancies | 23 | 9.3 | 1.7 | 2.0 – 10.0 |

**Supplementary Table S3.** Second Delphi survey: statements and outcomes with high consensus (*M* ≥ 8.0 or *M* ≤ 2.0) ), on a scale ranging from 0-10 (0=totally disagree; 10=totally agree)

**Supplementary Table S3.** SecondDelphi survey: … (*continued 2/3)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Part C. Training health care providers in providing information about placebo and nocebo effects** | | | | | |
| **C1. What aspects of placebo effects (and their mechanisms) should be included when training health care providers in providing information about placebo effects to patients?** *(continued)* | | | | | |
|  |  | n | M | SD | min-max |
| C1.2. | Health care providers should be informed about the neurobiological and physiological underpinnings of placebo effects | 23 | 9.3 | 1.1 | 5.7 – 10.0 |
| C1.3. | Health care providers should be informed about effect sizes of placebo effects (e.g., because these vary across conditions and outcomes) | 23 | 8.9 | 1.3 | 5.0 – 10.0 |
| C1.4. | Relevant ethical issues should be included in training providers (e.g., the ethics of placebo use in clinical trials and clinical practice) | 23 | 9.6 | 0.7 | 7.8 – 10.0 |
| C1.5. | An emphasis should be placed on what health care providers can do so that placebo effects may be maximized in clinical practice | 23 | 9.2 | 1.4 | 5.0 – 10.0 |
| C1.6. | Health care providers should be informed about clinical studies dealing with placebo effects | 23 | 8.5 | 2.1 | 2.9 – 10.0 |
| C1.7. | Health care providers should be informed that there is evidence that placebo effects can work when people know about the effect | 22 | 8.9 | 1.5 | 5.0 – 10.0 |
| **C2. What aspects of nocebo effects (and their mechanisms) should be included when training health care providers in providing information about nocebo effects to patients?** | | | | | |
|  |  | n | M | SD | min-max |
| C2.1. | Health care providers should be taught about the mechanisms by which nocebo effects are likely to occur | 23 | 9.4 | 1.2 | 5.5 – 10.0 |
| C2.2. | Health care providers should be informed about the neurobiological and physiological underpinnings of nocebo effects | 23 | 9.4 | 1.2 | 5.6 – 10.0 |
| C2.3. | Health care providers should be informed about effect sizes of nocebo (e.g., because these vary substantially for outcomes and individuals) | 23 | 8.6 | 1.6 | 5.0 – 10.0 |
| C2.4. | Health care providers should be taught about average nocebo effects sizes and duration (e.g., in different conditions) | 23 | 8.3 | 2.0 | 4.0 – 10.0 |
| C2.5. | Relevant ethical issues should be included in training providers | 22 | 9.3 | 1.2 | 5.9 – 10.0 |
| C2.7. | Health care providers should be informed about the importance of interindividual differences in nocebo | 23 | 8.1 | 2.1 | 2.0 – 10.0 |
| C2.8. | An emphasis should be placed on what health care providers can do to reduce nocebo effects (e.g., message framing, coping with knowledge and medical skills of patients) | 22 | 8.9 | 1.6 | 5.0 – 10.0 |
| C2.9. | Health care providers should be taught about the evidence we have for nocebo effects (systematic reviews, randomized trials) | 22 | 9.2 | 1.3 | 5.0 – 10.0 |
| **C4. Concerning the format of a training in providing information about placebo and nocebo effects: do you believe such a training should be standardized, or specialized?** | | | | | |
|  |  | n | M | SD | min-max |
| C4.1. | A training for health care providers should consist of multiple modules, e.g., a general module for all ..., and specialized modules ... about their own treatments | 23 | 8.8 | 1.3 | 5.1 – 10.0 |
| C4.4. | The training should be calibrated to match the educational level of the provider (e.g., bachelor, master, higher training level for individual clinicians) | 23 | 8.1 | 1.9 | 4.8 – 10.0 |
| C4.7. | A training should explain that different patients need different information | 23 | 8.1 | 2.2 | 2.1 – 10.0 |
| **C5. In which format should health care providers be trained in providing information about placebo and nocebo effects?** | | | | | |
|  |  | n | M | SD | min-max |
| C5.6. | Training health care providers with written information alone will not be sufficient | 22 | 8.6 | 1.9 | 2.7 – 10.0 |
|  |  |  |  |  |  |
| **C6. How long should a training about providing information about placebo and nocebo effects be?** | | | | | |
|  |  | n | M | SD | min-max |
| C6.7. | A training in providing information about placebo and nocebo effects should be longitudinally embedded within medical school, for example a half day for each term, or a full day for each term | 22 | 8.4 | 1.6 | 5.0 – 10.0 |

**Supplementary Table S3.** SecondDelphi survey: … (*continued 3/3)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Part C. Training health care providers in providing information about placebo and nocebo effects** | | | | | |
| **C7. When should health care providers be trained in providing information about placebo and nocebo effects?** | | | | | |
|  |  | n | M | SD | min-max |
| C7.1. | A training on providing information about placebo and nocebo effects should be offered during standard medical/nursing/psychology education | 23 | 8.9 | 1.3 | 5.0 – 10.0 |
| C7.3. | Training on providing information about placebo and nocebo effects should be embedded throughout the entire medical/nursing/psychology education | 22 | 8.4 | 1.6 | 5.0 – 10.0 |
|  |  |  |  |  |  |

**Supplementary Table S4.** Second Delphi survey: statements and outcomes with moderate consensus (7.5 ≤ *M* < 8.0 or 2.0 < *M* ≤ 2.5) or for which no experts’ consensus was reached (2.5 < *M* < 7.5), on a scale ranging from 0-10 (0=totally disagree; 10=totally agree)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Part A. Informing patients about placebo effects** | | | | | |
| **A1. What should patients be told about placebo effects?** | | | | | |
|  |  | n | M | SD | min - max |
| A1.12. | Patients should be told about the limits of placebo effects | 23 | 7.9 | 2.5 | 1.0 – 10.0 |
| A1.8. | Patients should be informed about the underlying neurobiology of placebo effects, e.g. that they can be described as brain responses that trigger endogenous pharmacology | 23 | 7.8 | 2.4 | 2.0 – 10.0 |
| A1.5. | Patients should be informed that placebo effects are inherent to any treatment and can happen to anyone | 23 | 7.8 | 2.3 | 3.0 – 10.0 |
| A1.7. | Patients should be informed about the underlying mechanisms of placebo effects, for example, the patient-clinician relationship, learning and positive expectations | 23 | 7.5 | 2.7 | 1.9 – 10.0 |
| A1.14. | Common misconceptions about placebo effects need to be addressed | 23 | 7.4 | 2.8 | 0.9 – 10.0 |
| A1.15. | Information on placebo effects should focus on what it contributes to the total response to treatment | 23 | 7.2 | 2.6 | 0.4 – 10.0 |
| A1.10. | Patients should be told how placebos might work to establish more useful mindsets and more facilitatory social contexts | 21 | 6.8 | 2.5 | 1.9 – 10.0 |
| A1.11. | Patients should be told where placebo effects are likely to have the most benefit | 21 | 6.6 | 2.9 | 0.0 – 10.0 |
| A1.2. | Information provided to patients should be provided in a non-detailed way: only basic information about mechanisms of placebo effects should be given | 23 | 6.4 | 2.8 | 1.4 – 10.0 |
| A1.13. | Patients need to understand why the practitioner thinks placebo effects may work in their individual case | 22 | 6.1 | 3.1 | 0.9 – 10.0 |
| A1.6. | Patients should be informed that placebo effects depend on the trustful relationship to the practitioner and treatment adherence | 23 | 5.9 | 3.1 | 0.0 – 10.0 |
| A1.17. | What information is provided to patients depends on treatment duration. | 22 | 5.6 | 2.7 | 1.0 – 10.0 |
| A1.1. | Patients should be informed about how placebo effects have been traditionally used in clinical trials | 22 | 5.3 | 2.9 | 0.1 – 10.0 |
| A1.18. | There is not enough evidence yet to ascertain what information should be provided to patients about placebo effects | 20 | 5.0 | 3.4 | 1.0 – 10.0 |
| **A4. In what manner might patients be best informed about placebo effects in medical healthcare (e.g., letters, brochures, oral information by a doctor or other healthcare provider)?** | | | | | |
|  |  | n | M | SD | min-max |
| A4.7. | The manner in which patients might be informed about placebo effects should be decided upon the individual needs of a health care center or patient | 23 | 7.8 | 2.5 | 2.0 – 10.0 |
| A4.3. | Information regarding placebo effects is best communicated to patients by using multiple media, i.e., a multipronged approach should be used | 23 | 7.1 | 2.7 | 0.9 – 10.0 |
| A4.8. | There is not enough evidence yet to ascertain in what manner patients should be informed about placebo effects; this needs to be investigated further | 23 | 6.9 | 2.8 | 1.4 – 10.0 |
| A4.2. | Oral information about placebo effects should be further supplemented by reading material (e.g., leaflets or brochures, an approved website) | 22 | 6.9 | 2.9 | 0.9 – 10.0 |
| A4.1. | Patients are best informed orally and in person about placebo effects by a healthcare provider | 23 | 6.8 | 2.6 | 0.9 – 10.0 |
| A4.5. | Patients are best informed about placebo effects by visual information, i.e., video clips | 22 | 4.3 | 2.5 | 0.0 – 8.1 |
| A4.6. | Patients are best informed about placebo effects by online communication | 21 | 4.2 | 2.5 | 0.0 – 9.2 |
| A4.4. | Patients are best informed about placebo effects by written information, i.e., brochures or letters | 23 | 3.9 | 2.0 | 0.9 – 8.6 |
|  |  |  |  |  |  |

**Supplementary Table S4.** Second Delphi survey *(continued 2 / 6)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Part A. Informing patients about placebo effects** | | | | | |
| **A5. Should the term ‘placebo effect’ be used when communicating about these types of effects?** | | | | | |
|  |  | n | M | SD | min-max |
| A5.12. | We should keep with the term placebo effect unless there is a fully agreed upon term to switch to | 23 | 7.7 | 2.3 | 0.0 – 10.0 |
| A5.7. | Using the term placebo effect is fine, if one is intending to explicitly harness placebo effects, for example by prescribing open-label placebos | 23 | 7.5 | 2.3 | 2.7 – 10.0 |
| A5.13. | After using the term placebo effect, it should be broken down into its constant parts: the body’s natural ability to heal, mindset (expectancies, beliefs, thoughts), and social context (relationship, branding etc) | 21 | 7.5 | 2.3 | 2.3 – 10.0 |
| A5.6. | Using the term placebo effect is fine, as open-label placebo literature shows that it is not on its own an impossible barrier to getting positive effects in patients | 23 | 7.3 | 2.7 | 1.0 – 10.0 |
| A5.1. | The term placebo effect(s) should be used when communicating about these types of effects | 23 | 7.0 | 2.3 | 1.9 – 10.0 |
| A5.2. | Using the term placebo effect is fine, as people likely have heard about it before and it is a term that people seem to already grasp | 23 | 7.0 | 1.9 | 4.0 – 10.0 |
| A5.3. | Using the term placebo effect is fine, as it is a scientific term | 23 | 6.7 | 2.7 | 2.0 – 10.0 |
| A5.4. | Using the term placebo effect is fine, as failure to be transparent would be inappropriate, and providers have a duty to be open and honest | 23 | 6.7 | 2.8 | 0.9 – 10.0 |
| A5.15. | There is not enough evidence yet to decide whether we should use the term placebo effect | 18 | 5.6 | 2.6 | 0.8 – 10.0 |
| A5.14. | The term placebo effect should not necessarily be used, rather it may depend on the needs of the patients | 22 | 4.3 | 2.5 | 1.0 – 10.0 |
| A5.11. | Using the term placebo effect is not okay, rather we should describe what the effects are | 19 | 4.1 | 2.7 | 0.2 – 10.0 |
| A5.9. | Using the term placebo effect is not okay, rather the terminology should be softened a little (e.g., by using placebo-like effect) | 17 | 3.0 | 2.7 | 0.0 – 8.2 |
| A5.8. | Using the term placebo effect is not okay, as this word has negative connotations (e.g., many people have been taught that it is part of pseudo-science/alternative medicine; some will think they are gullible) | 17 | 2.9 | 2.2 | 0.1 – 7.0 |
| A5.10. | Using the term placebo effect is not okay, as it is a vague term that comes with a lot of unnecessary baggage | 19 | 2.8 | 2.2 | 0.2 – 8.0 |
| **A6. Are there other terms that might be preferable to use when communicating about placebo effects?** | | | | | |
|  |  | n | M | SD | min-max |
| A6.12. | Whether the term placebo effect should be used, depends on what is being communicated and why | 23 | 7.4 | 2.0 | 2.8 – 10.0 |
| A6.14. | There is not enough evidence yet to decide what term might be preferable to use when communicating about placebo effects | 22 | 6.6 | 2.9 | 0.9 – 10.0 |
| A6.10. | More than 1 term (i.e. both placebo effect and expectancy) should be used | 22 | 6.1 | 2.5 | 1.6 – 10.0 |
| A6.11. | We should use terms related to the mechanisms (e.g., learning or context) | 21 | 5.8 | 2.6 | 1.4 – 10.0 |
| A6.13. | No alternative is preferable to placebo effect | 21 | 5.1 | 2.8 | 0.0 – 10.0 |
| A6.4. | Using bodily, endogenous, or internal self-healing mechanisms may be preferable | 20 | 5.0 | 2.8 | 0.0 – 10.0 |
| A6.1. | Using expectancy effects may be preferable | 20 | 4.6 | 2.7 | 0.5 – 9.0 |
| A6.6. | Using self-healing potential triggered by positive attitude, trust and prior experience may be preferable | 20 | 4.5 | 2.1 | 0.8 – 9.0 |
| A6.9. | Using healing effects related to the perception of the treatment or meaning response may be preferable | 15 | 4.4 | 2.5 | 0.6 – 9.2 |
| A6.5. | Using placebo-like effect may be preferable | 17 | 4.0 | 2.8 | 0.0 – 8.1 |
| A6.7. | Using mindset effects may be preferable | 17 | 3.1 | 2.4 | 0.5 – 8.7 |
| A6.2. | Using psychological component of the treatment may be preferable | 19 | 3.9 | 2.1 | 0.7 – 7.8 |
| A6.3. | Using patient-clinician relationship effects may be preferable | 18 | 3.4 | 2.1 | 0.7 – 7.1 |
|  |  |  |  |  |  |

**Supplementary Table S4.** Second Delphi survey *(continued 3 / 6)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Part B. Informing patients about nocebo effects** | | | | | |
| **B1. What should patients be told about nocebo effects?** | | | | | |
|  |  | n | M | SD | min-max |
| B1.1. | Patients should receive general information about the nocebo effect | 21 | 7.7 | 2.2 | 3.0 – 10.0 |
| B1.9. | Patients should get some concrete examples of nocebo effects (e.g., side effects) | 22 | 7.4 | 2.0 | 3.9 – 10.0 |
| B1.8. | Patients should be told about the possible risk of side effects and negative treatment effects due to negative expectancies regarding the treatments | 22 | 7.3 | 2.0 | 2.0 – 10.0 |
| B1.7. | Patients should be told that some side effects might be nocebo effects and that awareness of this might reduce the likelihood of their occurrence | 23 | 7.2 | 2.3 | 1.0 – 10.0 |
| B1.3. | Patients should be informed about the underlying mechanisms of nocebo effects (e.g., expectancy, learning, social information) | 23 | 6.9 | 2.3 | 1.9 – 10.0 |
| B1.4. | Patients should be informed about the underlying neurobiology of nocebo responses | 21 | 6.8 | 2.1 | 1.1 – 10.0 |
| B1.11. | Besides nocebo effects, misattribution of symptoms should also be added to the discussion of nocebo effects | 23 | 6.3 | 2.5 | 0.8 – 10.0 |
| B1.2. | Only patients who indicate they would like to know more about nocebo effects should receive information about the mechanisms and neurobiology | 20 | 6.0 | 2.6 | 0.8 – 10.0 |
| B1.13. | There is not enough evidence at the moment to decide whether patients should be told about nocebo effects, if the goal is to reduce the nocebo effect | 20 | 6.0 | 3.0 | 0.0 – 10.0 |
| B1.10. | When informing patients about nocebo effects, one should be careful not to mention specific side effects that could occur | 20 | 5.2 | 2.5 | 0.0 – 8.2 |
| B1.3. | Patients should not be informed about nocebo effects, unless they ask for information themselves - in which case basic information may be divulged | 18 | 3.4 | 2.6 | 0.2 – 10.0 |
| B1.12. | Patients should not be informed about nocebo effects | 14 | 3.4 | 2.9 | 0.2 – 10.0 |
|  |  |  |  |  |  |
| **B4. In what manner should patients be informed about nocebo effects in medical healthcare (e.g., letters, brochures, oral information by a doctor or other healthcare provider)?** | | | | | |
|  |  | n | M | SD | min-max |
| B4.7. | The manner in which patients might be informed about placebo effects should be decided upon the individual needs of a health care center or patient | 23 | 7.7 | 2.1 | 4.3 – 10.0 |
| B4.1. | Patients are best informed orally and in person about possible nocebo effects by a healthcare provider | 22 | 7.3 | 2.1 | 2.0 – 10.0 |
| B4.11. | There is not enough evidence yet to ascertain in what manner patients should be informed about nocebo effects; this needs to be investigated further | 22 | 7.1 | 2.6 | 1.7 – 10.0 |
| B4.9. | It does not matter how information about nocebo effects is communicated, as long as it is done in a way that doesn’t contribute to causing the patient to experience those effects | 20 | 6.2 | 2.6 | 1.8 – 10.0 |
| B4.2. | Oral information about nocebo effects should be further supplemented by reading material (e.g., brochures, letters, leaflets) | 22 | 6.1 | 2.7 | 0.9 – 10.0 |
| B4.3. | Information regarding nocebo effects is best communicated to patients by using multiple media | 22 | 5.8 | 3.0 | 0.8 – 10.0 |
| B4.10. | Telling patients about placebo and nocebo effects may not be the most helpful way to help someone change their mind or behaviors | 21 | 5.5 | 2.0 | 2.0 – 8.6 |
| B4.6. | Patients are best informed about nocebo effects by online communication (e.g., health websites) | 21 | 4.1 | 2.2 | 0.9 – 8.1 |
| B4.8. | Informing patients about nocebo effects through written information (letters, brochures etc.) can be seen as a cheap way to excuse bad treatment at a clinic | 17 | 4.1 | 2.4 | 0.0 – 9.1 |
| B4.5. | Patients are best informed about nocebo effects by visual information, e.g., video clips | 21 | 4.0 | 2.0 | 0.9 – 8.0 |
| B4.4. | Patients are best informed about nocebo effects by written information, e.g., brochures or letters | 20 | 3.8 | 2.1 | 0.9 – 7.1 |
|  |  |  |  |  |  |

**Supplementary Table S4.** Second Delphi survey *(continued 4 / 6)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Part B. Informing patients about nocebo effects** | | | | | |
| **B5. Should the term ‘nocebo effect’ be used when communicating about these types of effects?** | | | | | |
|  |  | n | M | SD | min-max |
| B5.2. | Using the term nocebo effect is fine, however, a separation between adverse events of a treatment and actual nocebo effects (i.e. following suggestions) should be made | 23 | 7.8 | 2.1 | 4.5 – 10.0 |
| B5.3. | Using the term nocebo effect is fine, as the term can be easily explained to the patient as the counterpart of the ‘placebo effect’, which helps the patient to understand this - largely unknown - phenomenon | 23 | 7.7 | 2.1 | 1.7 – 10.0 |
| B5.8. | We should keep with the term nocebo effect unless there is a fully agreed upon term to switch to | 22 | 7.6 | 2.3 | 0.7 – 10.0 |
| B5.1. | The term nocebo effect is fine | 16 | 6.5 | 2.1 | 1.5 – 10.0 |
| B5.9. | There is not enough evidence yet to decide whether we should use the term nocebo effect | 19 | 5.7 | 2.9 | 0.7 – 10.0 |
| B5.7. | It is not necessary to use the term nocebo effect, as it can easily be replaced | 16 | 4.3 | 2.2 | 0.5 – 8.1 |
| B5.4. | The term nocebo effect should not be used, as it is a jargon term (and should either be clearly explained, or avoided) | 16 | 2.7 | 3.1 | 0.2 – 10.0 |
| B5.5. | Some patients or healthcare providers may have negative ideas about the type of person who may experience nocebo effects. Therefore, the term should not be used | 17 | 2.7 | 1.5 | 0.3 – 5.0 |
| B5.6. | The term nocebo effect should not be used, as it is vague and may come with a lot of unnecessary baggage | 16 | 2.6 | 1.6 | 0.4 – 5.0 |
|  |  |  |  |  |  |
| **B6. Could there be other terms that might be more preferable to use when communicating about nocebo effects?** | | | | | |
|  |  | n | M | SD | min-max |
| B6.12. | There is not enough evidence yet to decide what term might be preferable to use when communicating about nocebo effects | 20 | 6.9 | 3.2 | 1.5 – 10.0 |
| B6.11. | A wider set of concepts would be more helpful to use than just nocebo effect - including thoughts, attitudes, appraisals, emotions, and learned effects | 21 | 6.5 | 2.5 | 0.4 – 10.0 |
| B6.9. | No alternative is preferable to nocebo effect | 22 | 6.4 | 2.4 | 1.5 – 10.0 |
| B6.10 | More than 1 term (i.e. both nocebo effect and negative expectancy) should be used | 21 | 5.8 | 2.2 | 0.9 – 10.0 |
| B6.1. | Using (negative) expectancy may be preferable | 17 | 5.1 | 2.6 | 0.5 – 9.0 |
| B6.2. | Using negative placebo effects may be preferable | 18 | 4.1 | 3.1 | 0.0 – 8.6 |
| B6.5. | Using psychological component of treatment or similar may be preferable | 15 | 4.0 | 2.8 | 0.5 – 10.0 |
| B6.6. | Using self-fulfilling prophecy in medicine may be preferable | 18 | 3.6 | 2.2 | 0.1 – 7.4 |
| B6.4. | Using mindset effects may be preferable | 11 | 3.4 | 2.8 | 0.4 – 8.1 |
| B6.8. | Using self-regulating brain pathways may be preferable | 12 | 3.2 | 2.6 | 0.0 – 9.0 |
| B6.3. | Using nocebo-like effect may be preferable | 13 | 2.9 | 2.6 | 0.0 – 7.0 |
| B6.7. | Using threat may be preferable | 11 | 2.2 | 2.2 | 0.1 – 7.3 |
|  |  |  |  |  |  |

**Supplementary Table S4.** Second Delphi survey *(continued 5 / 6)*

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| --- | --- | --- | --- | --- | --- |
| **Part C. Training health care providers in providing information about placebo and nocebo effects** | | | | | |
| **C1. What aspects of placebo effects (and their mechanisms) should be included when training health care providers in providing information about placebo effects to patients?** | | | | | |
|  |  | n | M | SD | min-max |
| C1.8. | There is not enough evidence yet to decide what aspects of placebo effects (and their mechanisms)should be included in a training for health care providers | 15 | 4.7 | 3.2 | 0.0 – 10.0 |
|  |  |  |  |  |  |
| **C2. What aspects of nocebo effects (and their mechanisms) should be included when training health care providers in providing information about nocebo effects to patients?** | | | | | |
|  |  | n | M | SD | min-max |
| C2.6. | Information on nocebo effects should not stress the negative side too much - rather, the information should be balanced with information about possible positive effects | 17 | 6.3 | 2.2 | 2.0 – 10.0 |
| C2.10. | There is not enough evidence yet to decide what aspects of nocebo effects (and their mechanisms) should be included in a training for health care providers | 16 | 5.7 | 3.1 | 0.9 – 10.0 |
|  |  |  |  |  |  |
| **C4. Concerning the format of a training in providing information about placebo and nocebo effects: do you believe such a training should be standardized, or specialized?** | | | | | |
|  |  | n | M | SD | min-max |
| C4.8. | Patient groups should have access to the same information as is given in training health care providers, albeit more accessible and understandable, and tailored to specific demographic groups | 22 | 7.7 | 2.3 | 1.9 – 10.0 |
| C4.3. | A training should be specialized for different professions / groups of health care providers, and different groups of patients (ideally based on empirical evidence) | 21 | 7.6 | 2.3 | 0.9 – 10.0 |
| C4.5. | The training should fit in a broader communication training on how to inform patients | 23 | 7.5 | 2.2 | 1.9 – 10.0 |
| C4.6. | A training for health care providers should contain standardized elements as much as possible for different health care providers | 23 | 6.4 | 1.7 | 4.3 – 10.0 |
| C4.9. | There is not enough information available to determine whether a training in providing information about placebo and nocebo effects should be standardized or specialized | 23 | 6.4 | 2.8 | 2.0 – 10.0 |
| C4.2. | A training for health care providers should be standardized for providers of all kinds (e.g., relatively basic and rudimentary training) | 21 | 5.2 | 3.1 | 0.0 – 10.0 |
|  |  |  |  |  |  |
| **C5. In which format should health care providers be trained in providing information about placebo and nocebo effects?** | | | | | |
|  |  | n | M | SD | min-max |
| C5.12. | Multiple formats for training may be used, such as face-to-face lectures or training, online modules or courses, information leaflets, or other types of training such as focus groups | 23 | 7.9 | 2.1 | 3.2 – 10.0 |
| C5.7. | It needs to be tested empirically which type of training for health care providers is best | 22 | 7.7 | 2.2 | 3.9 – 10.0 |
| C5.11. | The design of a training for providing information about placebo and nocebo effects depends on the learning methods most appropriate for the group | 23 | 7.6 | 1.9 | 4.3 – 10.0 |
| C5.9. | Health care providers should be trained by methods consistent with the teaching of other areas of their disciplines | 23 | 7.5 | 2.1 | 2.2 – 10.0 |
| C5.8. | Health care providers should be trained by face-to-face meetings / lectures with fellow students, so that holding a conversation about placebo and nocebo-effect can be practiced | 22 | 7.2 | 1.7 | 5.0 – 10.0 |
| C5.1. | Health care providers should preferably be trained by face-to-face meetings / lectures | 23 | 7.0 | 2.2 | 1.8 – 10.0 |
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**Supplementary Table S4.** Second Delphi survey *(continued 6 / 6)*

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| --- | --- | --- | --- | --- | --- |
| **Part C. Training health care providers in providing information about placebo and nocebo effects** | | | | | |
| **C5. In which format should health care providers be trained … *(continued)*** | | | | | |
|  |  | n | M | SD | min-max |
| C5.10. | In designing a training for providing information about placebo and nocebo effects, the standard evidence based guidelines for teaching should be followed. No new rules for education should be invented | 23 | 7.0 | 2.2 | 2.8 – 10.0 |
| C5.2. | A face-to-face training should preferably be offered, that is supplemented by online modules (e.g., both general and profession-specific online modules, or video tutorials) | 22 | 6.6 | 2.3 | 0.9 – 10.0 |
| C5.4. | Health care providers should preferably be trained through workshops | 23 | 6.5 | 1.7 | 3.7 – 10.0 |
| C5.13. | There is not enough information available to determine the ideal format of a training in providing information about placebo and nocebo effects | 21 | 5.7 | 3.0 | 0.9 – 10.0 |
| C5.5. | Health care providers should preferably be trained with long-term supervision | 18 | 5.5 | 2.6 | 0.0 – 10.0 |
| C5.3. | Health care providers should preferably be trained by online training/courses | 23 | 3.9 | 2.4 | 0.0 – 8.0 |
|  |  |  |  |  |  |
| **C6. How long should a training about providing information about placebo and nocebo effects be?** | | | | | |
|  |  | n | M | SD | min-max |
| C6.5. | Ideally it would be obligatory to be trained in communication about placebo and nocebo effects and also to be tested in your communication skills | 23 | 7.2 | 1.9 | 3.0 – 10.0 |
| C6.8. | There is not enough information available to determine the ideal length of a training in providing information about placebo and nocebo effects | 21 | 6.5 | 2.8 | 2.1 – 10.0 |
| C6.2. | A training in providing information about placebo and nocebo effects should be followed by supervision in clinical practice | 22 | 6.4 | 2.0 | 2.0 – 10.0 |
| C6.3. | Health care providers should have between half a day and a full day of information and training (4-8 hours) | 23 | 6.4 | 2.1 | 1.7 – 10.0 |
| C6.6. | A training in providing information about placebo and nocebo effects should have the format of a several hours webinar | 21 | 4.6 | 2.2 | 0.0 – 8.3 |
| C6.1. | A training in providing information about placebo and nocebo effects should be a full-time course | 17 | 4.6 | 2.8 | 0.1 – 10.0 |
| C6.4. | Health care providers should have a brief course (less than 4 hours) | 20 | 4.4 | 2.4 | 0.1 – 10.0 |
|  |  |  |  |  |  |
| **C7. When should health care providers be trained in providing information about placebo and nocebo effects?** | | | | | |
|  |  | n | M | SD | min-max |
| C7.2. | Following training, (online) booster session should be offered to clinically active health care professionals | 23 | 7.9 | 1.9 | 2.0 – 10.0 |
| C7.9. | Training on providing information about placebo and nocebo effects should be part of communication skills training | 22 | 7.4 | 2.1 | 2.3 – 10.0 |
| C7.5. | A training on providing information about placebo and nocebo effects should be offered towards the end of standard medical/nursing/psychology education | 22 | 7.3 | 2.5 | 0.9 – 10.0 |
| C7.7. | Training on providing information about placebo and nocebo effects should be offered at post-graduate / post-degree level, when there is more contact with patients | 21 | 7.1 | 1.8 | 5.0 – 10.0 |
| C7.6. | Training on providing information about placebo and nocebo effects should be offered once trainees get to the more clinical stage of their education | 21 | 7.0 | 2.2 | 0.9 – 10.0 |
| C7.4. | A training on providing information about placebo and nocebo effects should be offered at the beginning of standard medical/nursing/psychology education | 20 | 6.7 | 2.8 | 1.0 – 10.0 |
| C7.10. | There is not enough information available to determine at what moment health care providers should be trained in providing information about placebo and nocebo effects | 18 | 6.6 | 2.7 | 2.5 – 10.0 |
| C7.8. | It does not matter at which stage training on providing information about placebo and nocebo effects is offered | 14 | 4.3 | 2.6 | 0.1 – 10.0 |
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