




BMJ Open Positive Health dialogue tool and value-based healthcare: a qualitative exploratory study during residents' outpatient consultations

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To cite: Bock LA, Noben CYG, Yaron G, *et al*. Positive Health dialogue tool and value-based healthcare: a qualitative exploratory study during residents' outpatient consultations. *BMJ Open* 2021;**11**:e052688. doi:10.1136/bmjopen-2021-052688

► Prepublication history and additional supplemental material for this paper are available online. To view these files, please visit the journal online (<http://dx.doi.org/10.1136/bmjopen-2021-052688>).

Received 22 April 2021

Accepted 01 November 2021



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ABSTRACT

Objective To explore how residents experienced the application of the Positive Health dialogue tool (PH-tool) during outpatient consultations and its influence on the delivery of value-based healthcare (VBHC).

Design Qualitative study using non-participant observations of outpatient consultations during which residents used the PH-tool, followed by longitudinal individual, semistructured interviews. To analyse the data from observations and interviews, observational form notes' summarisation and categorisation, and an iterative-inductive thematic approach was used.

Participants Eight residents—five from the ear, nose, and throat-department and three from the gastroenterology-hepatology-department—were selected through convenience sampling, accounting for 79 observations and 79 interviews.

Results Residents had bivalent experiences with using the PH-tool. Residents discussed three main benefits: a gained insight into the individual patient's context and functioning, a changed dynamics in resident-patient communication, and an increased awareness regarding value in terms of patient-related outcomes and healthcare costs. Three barriers became apparent: doubts regarding the PH-tool's relevance and scope, boundaries of superspecialised medical professionals, and a lack of demarcation in clinical practice.

Conclusion The PH-tool use can be beneficial for residents during outpatient consultations with new patients and follow-up in cases of multidimensional problems, particularly in cases of chronic conditions and generalist care. In these situations, the tool yielded valuable patient information beyond physical health, helped foster patient engagement, and enabled tailoring the treatment plan to individual patients' needs. On the other hand, the PH-tool was not a good fit for simple problems, clearly demarcated help requests, periodic follow-up consultations, or verbose patients. In addition, it was not suitable for superspecialised care, because it yielded an abundance of general information. For particular patients and problems, using the PH-tool seems a promising strategy to increase VBHC delivery. Nevertheless, further research and detailing is needed to better align the PH-tool's broad intent and clinical practice.

Strengths and limitations of this study

- This is the first study providing insights into the Positive Health dialogue tool's application in daily clinical hospital practice and, in particular, its perceived impact on value-based healthcare delivery.
- Research aims were studied by a longitudinal qualitative study design, resulting in extensive and rich data.
- The study was restricted to the Netherlands and a limited number of specialties, potentially limiting the generalisability of the results to other contexts.

INTRODUCTION

Value-based healthcare (VBHC) is a highly topical concept within many healthcare systems regarding the healthcare sector's sustainability.¹⁻³ It has attracted global interest as a concept that focuses on the overarching goal of achieving high-value healthcare for patients against reasonable costs.⁴ According to VBHC's founders, Porter and Teisberg, VBHC has a primary purpose of not just minimising healthcare costs, but delivering optimal value to patients. VBHC is consequently defined as health outcomes that matter to individual patients against their associated healthcare costs.^{5,6} Given the VBHC principles, physicians (including residents) should consider 'what matters' for individual patients when making clinical decisions together.^{4,5,7} Hence, physicians must learn to obtain information on patients' individual needs, values, preferences, and in perspective of healthcare costs—and discuss these openly within the physician-patient communication to ensure shared decision-making.

Traditionally, physician-patient communication is primarily grounded on a paternalistic model, that is, medical authority.^{8,9} Paternalism implicates that physicians make decisions based on what they consider to be in the

patient's best interest.¹⁰ With the rising focus on shared decision-making, it is now becoming more common to approach patients as individuals who should be included in care processes.¹¹ The communication paradigm has thus intended to shift from paternalism to individualism—and from provider-centred to a patient-centred model.^{8,9} Patient-centred care is, however, not universally defined.^{12,13} A recent review updated the definition provided in Mead and Bower's review from 2000.^{12,13} In 2019, Langberg *et al*¹² characterised patient-centred care as understanding the patient's situation, developing the physician–patient relationship, and coordinating care in the wider context of the treatment. Hence, the shift towards patient-centred communication begs the question of whether physicians sufficiently consider patients' needs, values and preferences in their communication and decision-making.

It is increasingly recognised that in addition to physical health, other aspects of life, such as mental well-being or social participation, might also be important to patients. To do justice to these other aspects, Huber *et al* have developed 'Positive Health' (PH), explained as a comprehensive concept of health useful for practice.¹⁴ This concept forms an operationalisation of the new, dynamic definition of health, according to which health is *the ability to adapt and self-manage in response to the physical, mental and social challenges*.^{14–16} This new definition forms an alternative to the WHO's more static definition that approaches health as *a state of complete physical, mental and social well-being*.^{14,17} Given the new ageing population norm with chronic diseases, however, this restrictive definition is

no longer considered adequate.¹⁵ Indeed, Huber *et al*¹⁴ showed that patients regard multiple other dimensions as vital to their health. The new PH-concept therefore represents a broad perception of health that goes beyond physical and even mental health, expressed by six dimensions that affect individuals' experienced health: *bodily functions, mental well-being, meaningfulness, quality of life, participation and daily functioning*.^{18–20} These six dimensions represent 32 underlying indicators for health.¹⁴ The dimensions are visualised by means of the 'spider web diagram' (see figure 1).²¹ This diagram can also be used as a dialogue tool (the PH-tool) to address individuals' health from a broader perspective, and discuss their needs, values and preferences (see box 1 for more information on the tool).^{14,15,20}

In the last decade, PH has been widely embraced in the Dutch public sector, as means to a further patient-centred approach.²² It is currently applied in the field of primary care, welfare and social work.²³ In addition, the concept is increasingly incorporated within Dutch health education programmes to increase the attention for healthcare prevention and to avoid inappropriate care by employing a patient-centred approach.^{24,25} However, there is currently a paucity of research into the application of PH and the PH-tool—particularly in the context of hospital consultations. Therefore, the present study aimed to explore how residents experienced the application of the PH-tool during outpatient consultations and (whether the application of the PH-tool during outpatient consultations had an influence on the delivery of VBHC).

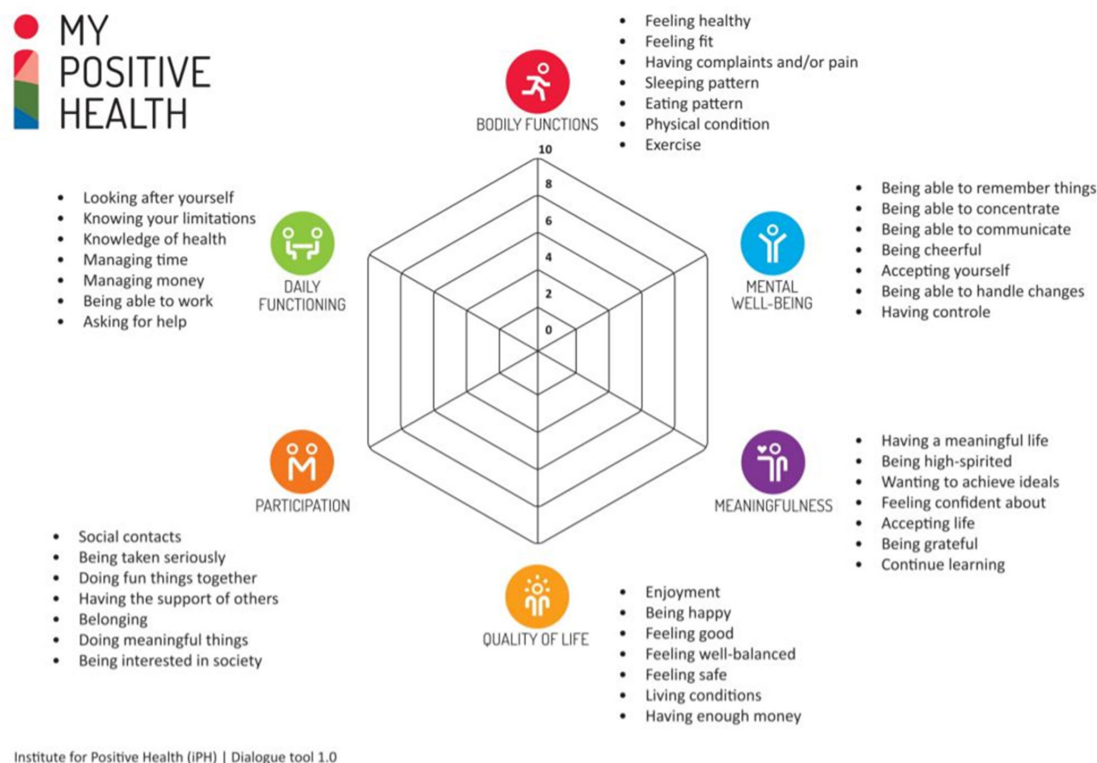


Figure 1 The Positive Health's six dimensions and their underlying aspects visualised in 'the spider web' diagram.²¹

Box 1 The Positive Health (PH) dialogue tool

The PH-tool, developed by the Institute for Positive Health, is a hexagonal diagram featuring the six dimensions of PH, namely *bodily functions*, *mental well-being*, *meaningfulness*, *quality of life*, *participation* and *daily functioning*. The diagram (popularly termed ‘the spider web’) is intended to provide users with a sense of how they stand concerning each dimension. To help individuals determine their ‘score’ on the dimensions, each dimension is accompanied by seven statements (a total of 42 statements), together representing 32 underlying aspects of experienced health.¹⁴ For each statement, the patient indicates their agreement or disagreement using an 11-point Likert scale (0=completely disagree; 10=completely agree). The tool’s statements are originally formulated in Dutch and can be retrieved via the first author on request. Nevertheless, the tool’s statements are an elaboration of each aspect illustrated in figure 1. In this study, we used a paper-based version of the tool.

METHODS

Design

To investigate residents’ experience regarding the PH-tool’s application and its influence on VBHC delivery, we adopted a qualitative exploratory approach. This included combining non-participant observations with longitudinal individual, semistructured interviews. In doing so, we followed quality standards for reporting qualitative research (see online supplemental material 1).²⁶

Setting and recruitment

We conducted the study in a 715-bed university medical centre with approximately 7500 employees that provides both secondary and tertiary healthcare in the South-eastern part of the Netherlands.²⁷ The study focused on residents in the Dutch Postgraduate Medical Education setting (see online supplemental material 2) for more details). We invited the departments of ear, nose, and throat (ENT) and gastroenterology-hepatology (GH) to participate in this study, focusing on outpatient consultations for both chronic and non-chronic diseases in different disciplines. This allowed for comparison of findings between departmental and disease-specific contexts.

Recruitment occurred through convenience sampling, a non-probability sampling method. Prior to the study, two authors (LAB and ELJG) visited both departments of ENT (n=14 residents) and GH (n=14 residents) to introduce the PH-principles and the PH-tool, and to explain the study’s aim. Thereafter, we invited residents to participate in the study.

Participants

Eight residents—five from the ENT-department and three from the GH-department—participated in this study. On average, the ENT-residents had received 2 years of training at the time of the data collection and the GH-residents 4 years. In total, these residents accounted for 79 observations and 79 interviews, with an average of 9 (ENT) and 12 (GH) per resident. Table 1 gives an

Table 1 General characteristics of residents (n=8) and outpatient consultations observed (n=79)

Characteristics	Department	
	ENT	GH
Residents		
N	5	3
Male, no (%)	4 (80)	1 (33)
Age, mean (years)	28.6	32.0
Range	25–31	31–33
Residency training, mean (years)	2	4
Range	1–5	3–5
Duration of residency programme	5	6
Observed outpatient consultations		
N	44	35
Per resident, mean	9	12
Range	6–13	11–12
Consultation type, no (%)		
New	28 (63.6)	19 (54.3)
Follow-up		
Standard/diagnostic test results	8 (18.2)	10 (28.6)
Periodic	8 (18.2)	6 (17.1)
Male patients, no (%)	19 (43)	12 (34)
Age of patient, mean (years)	58.5	55.5
Range	19–87	19–89
Two most common primary problems of patients* (%)		
Hearing loss	16 (36.4)	–
Vertigo	6 (13.6)	–
Defecation disorder	–	12 (34.3)
Abdominal pain	–	11 (31.4)

*of patients observed per department.

ENT, ear, nose, and throat; GH, gastroenterology-hepatology.

overview of the characteristics of the residents and of the outpatient consultations observed.

Procedure and data collection

We collected data through multiple sources between February and August 2019. Residents used the PH-tool during multiple outpatient consultations over different days. Each consultation accounted for an observation and subsequently an interview. Consequently, multiple observations were carried out and several longitudinal interviews were conducted per resident. Figure 2 gives an overview of the data collection procedure.

Preconsultation: completion of the PH dialogue tool

First, the lead researcher (LAB) and each participating resident agreed on a time slot for observation. Next, the researcher approached patients who had an appointment for outpatient consultation in the waiting room, and

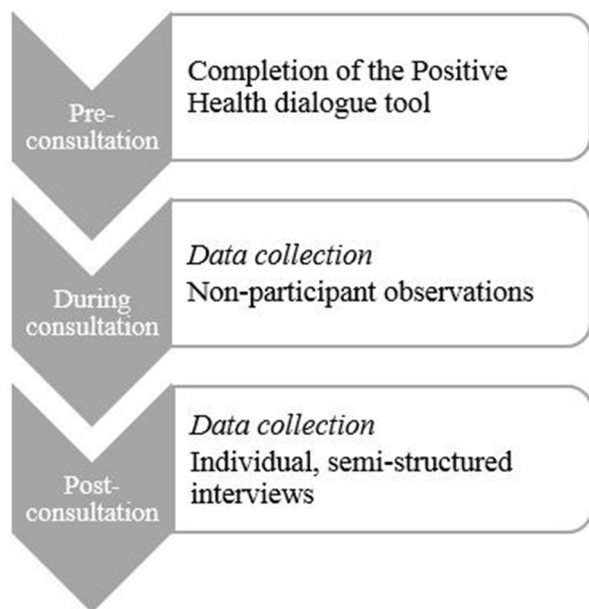


Figure 2 Study's data collection procedure.

asked them to participate in the study. The researcher briefly explained about the PH-tool to the patient. The researcher then asked the patient to complete the PH-tool (see [Box 1](#)).

During consultation: non-participant observations

Following the PH-tool completion, it was handed to the resident. During the outpatient consultation, the resident subsequently used the completed form as a conversation tool with the patient. The PH-tool thereby enabled residents to obtain additional information beyond 'standard' clinical outcomes and bodily functions. In observing these exchanges, the non-participating researcher took note of: (1) the outpatient consultation phase in which the resident used the PH-tool; (2) how the resident used it; (3) the level in which the resident discussed it (ie, overall dimension or specific statement(s)); (4) the PH-dimensions the resident discussed. For each observation, the researcher took field notes using an observational form containing these four aspects (included in (3)). The research team created this form (see online supplemental material 3) in advance to structure and document the observations (n=79). During the data collection, we made some modifications on the observational form by leaving out other observable variables, such as open or closed attitude based on the researcher's judgement.

Post consultation: individual, semistructured interviews

After each outpatient consultation, the researcher conducted an individual, face-to-face semi-structured interview (n=79) with the resident involved. Accordingly, she spoke with each resident several times. The researcher strived to interview the residents immediately after each outpatient consultation/observation. However, due to pragmatic clinical practice limitations, it occasionally occurred that the interview was conducted up to a

maximum of 4 hours after the outpatient consultation/observation. Interviews took place in a private meeting room in the outpatient clinic, and the interview series lasted between 12 and 46 min. The research team developed a topic guide (see online supplemental material 4) to explore residents' experiences with the PH-tool use and its perceived influence on VBHC delivery. During the final interview with each resident, the researcher explored residents' general and conclusive perspective. At the end of this interview, the researcher gave a verbal summary by way of a member-check 'on the spot', and to afford the participating residents the opportunity to comment or complement the interviews. All interviews were audio recorded and transcribed verbatim; transcripts were anonymised to ensure participants' privacy. The researcher wrote detailed reflective memos regarding her insights and impressions.²⁸

Data analysis

LAB descriptively analysed the observational data by summarising and categorising the observational form notes based on the performed observations. To analyse the interview data, we followed an iterative-inductive thematic approach,²⁹ using ATLAS.ti V.8.4.³⁰ The process of analysis encompassed several phases. LAB, CYGN, BABE and WNKAVM read the transcripts and memos concurrently and coded them independently by open coding techniques; searching for patterns relevant to the research focus that recurred within and between transcripts. To ensure salience of the analysis, LAB, CYGN, BABE and WNKAVM constantly compared and discussed the coding process with its evolving patterns and themes.²⁹ The researchers developed a robust coding scheme by grouping the codes into conceptually related ideas to assist the initial coding. LAB then continued the analysis to guide (dis)confirmation of codes. The researchers met frequently and discussed the resulting themes; any discrepancies between impressions and perceptions were discussed until they reached consensus. GY (extensive experience in qualitative research) reviewed the coding scheme's first version, after which LAB, CYGN, BABE and WNKAVM modified the analysis (see online supplemental material 5). Finally, we triangulated the two data source findings using the observational data to support the interview findings. We reached data saturation after 79 observations and interviews; meaning that no new themes emerged and a sufficient understanding of the key concepts was considered to be reached.³¹

Reflexivity

An essential aspect of qualitative research is to consider researchers' backgrounds, since these backgrounds result in different perspectives on the data. LAB (MSc) works as PhD student, has a background in health sciences and was trained in conducting qualitative research. CYGN (PhD) is a medical educational advisor and has a background in health technology assessment. GY (PhD) works as a senior researcher and has a background in medical humanities

and qualitative methods in healthcare research. BABE (PhD) is a senior researcher and has a background in health economics. ELJG (PhD) is a medical physicist-audiologist, and AAMM (MD, PhD) and WNKAVM (MD, PhD) are medical doctors. ELJG and AAMM are heads of residency training. WNKAVM is a medical educator experienced in qualitative research and in teaching and guidance of medical professional behaviour. The lead researcher (LAB) was not familiar with the participants. Our diverse expertise within the research team led to a well-thorough data discussion from several perspectives.

Ethical considerations

The participating residents provided written informed consent for the direct observations, including the researcher's presence during outpatient consultations, as well for the individual interviews. In approaching the patients, we stressed that residents' behaviour, experiences, and perspectives were the study's object, rather than the patients'. Patients gave their consent to the researcher's presence during the outpatient consultation prior to the observation. Participants' privacy was guaranteed by anonymising transcripts, storing audio recordings and interview transcripts on a secure server, and ensuring these materials were stored separately from the overview containing participants' full names. Only the lead researchers of this study had access to this server. We destroyed the completed PH-tools after the outpatient consultations.

RESULTS

Data analysis revealed bivalent residents' experiences regarding the PH-tool's application and its influence on VBHC delivery, comparable to the two sides of a coin. Residents perceived various benefits of using the PH-tool in clinical practice on the one hand; however, they also experienced barriers related to the tool's use on the other (see figure 3). This section consecutively discusses the perceived benefits and barriers. Department-specific differences were limitedly present in the observational

data, yet not particularly prominent in the interview data; therefore, a distinction between ENT and GH residents has barely not been made in the sections below, and the residents are consequently addressed as a general group.

Perceived benefits

Residents reported three main benefits of using the PH-tool in the context of outpatient consultations. The tool helped them gain insight into the individual patient's context and functioning, changed dynamics in resident-patient communication, and increased awareness regarding value in terms of patient-related outcomes and healthcare costs.

Gained insight into the individual patient's context and functioning

Residents perceived the PH-tool to contribute in enhancing insight in an individual patient's context and functioning in two different domains: gathering more in depth information beyond physical health on the one hand, and providing insights into the impact of the problems on the other. Residents thus experienced that the PH-tool provided them with a more comprehensive, in-depth overview of a patient's situation. It allowed them to better understand the patient's overall condition as well as the person behind the patient. As resident 1 said: "It did make it clear that it was a person who got bogged down in the systems and procedures. So that eh, he's not going to take it when I just say: you don't get compensation. It did give me a bit more of an idea who was sitting in front of me."

Some residents explained that by using the PH-tool, they became more aware of the possibility of approaching patient problems from a broader health perspective beyond the biomedical perspective. The observations showed that residents put this broader health perspective to practice by referring to the PH-tool during the encounter. Interestingly, the observations revealed that, in cases where residents did not use the tool, residents were less inclined to discuss other-than-physical dimension. Once residents initiated a discussion by using the

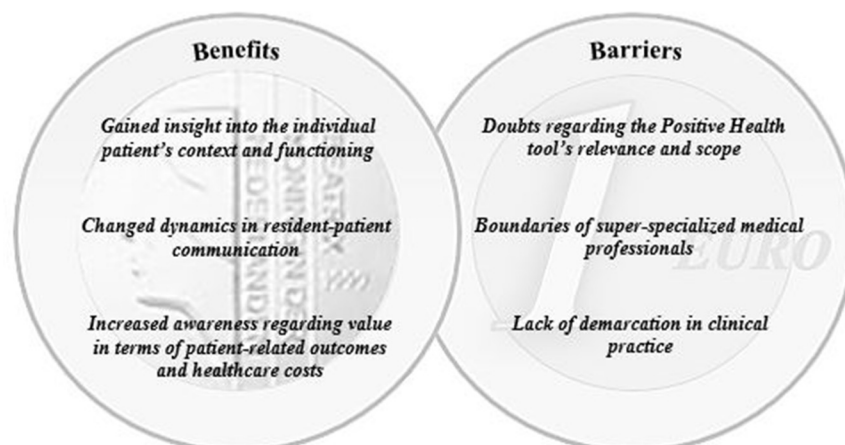


Figure 3 Two sides of the same coin: residents' experiences with using PH-tool during outpatient consultations.

PH-tool, they also addressed the other five PH-dimensions during the encounter.

Second, residents indicated that the PH-tool allowed them to better understand a problem's impact on a patient's everyday life. They described that the visual display of the scores on the diverse PH-tool dimensions served to efficiently generate more specific patient information, which was perceived to be useful for screening purposes. As one resident put it: "It's nice to get an inventory in that way [looking through the completed PH-tool] like okay, where is this patient in life without me talking to the patient for half an hour. Then it's screening and it can still be pleasant." (R2). Residents considered using the PH-tool constituted an informative addition to the patient's storyline for some patients, as well as a helpful confirmation for others. In cases of contradictory findings, by contrast, the tool triggered residents to initiate a more focused, in-depth, exploratory conversation.

In general, residents perceived the tool's potential to generate a broad overview of a patient's health and provide insights into the problem's impact mainly helpful during encounters with new or unfamiliar patients (eg, when taking over a patient from another physician). It provided residents with more diagnostic guidance and it was considered to contribute to consultation efficiency by saving time. In line with this finding, the observations revealed that residents mostly used the PH-tool during a verbal (or physical) examination during new outpatient consultations.

Changed dynamics in the resident–patient communication

The PH-tool use also affected the dynamics between residents and patients during the consultations. Residents indicated that using the PH-tool enabled patients to take a more active role concerning their own health in the conversation. Respondents reported that the PH-tool prompted some patients to be more cooperative within the conversation, which was considered as an effect of completing the PH-tool prior to the consultation. Subsequently, patients exhibited a more talkative attitude and conveyed more personal information during the consultation, either spontaneously or as a response to certain aspects in the PH-tool once addressed by the resident.

Likewise, residents noted that the PH-tool enabled patients to express their preferences regarding ways to improve their health, and to discuss their expectations from the consultation. Additionally, residents experienced that the PH-tool served as a method of reflection. The tool functioned as a mirror, helping patients to gain insight into their own health by highlighting certain dimensions and the subjective scores, as demonstrated by Resident 7's quote: "I just couldn't quite figure out why she was so trivial about her own complaints. While on the other hand, she often said how insecure she was and how annoying she found it, that it wasn't nothing. It was a bit ambiguous. So I could use it [the PH-tool] as a kind of holding up a mirror like, now look at what you're indicating of the impact." As the observations demonstrated,

mostly GH residents used the PH-tool in inquiring about the patients' general perception with filling out the tool and probing patients' preferences into rationales regarding specific health changes.

According to the residents, the PH-tool's six dimensions also enabled them to explain the individual treatment plan more tangible, and to inform patients on links between physical problems and other dimensional issues, especially in PH's multidimensional problems. As such, using the PH-tool supported the more practical nature of follow-up consultations. This was in line with observations that residents used the PH-tool when explaining and planning further treatment.

Increased awareness regarding value in terms of patient-related outcomes and healthcare costs

The two aforementioned benefits may also ultimately contributed to a more 'Value-Based' decision. Moreover, during a small number of outpatient consultations, the PH-tool helped residents more deliberately consider 'value' while making decisions, in terms of both patient-related outcomes and its associated healthcare costs. For instance, one resident addressed the issue of non-reimbursable costs associated with a particular hearing aid. The resident recommended a less expensive but still appropriate alternative, because the patient's financial situation, which came to the fore when using the PH-tool, did not allow for such expenditures. Similarly, the PH-tool more often induced residents to consider individual care aspects and treat the problems patients suffered from most by identifying what patients deemed the most valuable. Residents pointed out that the PH-tool sometimes helped them determine the most beneficial follow-up approach for individual patients (eg, a light or mild intensity follow-up). This seemed to suggest the PH-tool prompted residents to consider the trade-off between patient outcomes and healthcare costs to tailor both treatment and follow-up intensity to the patient's needs. Moreover, it outweighs patients' burden associated with (too) frequent hospital visits, and the associated costs in terms of time and money for both residents and patients. As resident 3 explained: "If he had filled in all fours, I would have offered him vestibular rehabilitation, for example. Now, I haven't done that because I think, yes, this man will not benefit from it. Then I will only give him an extra stimulus for something that will not help him in his quality of life."

Perceived barriers

Despite these perceived benefits of using the PH-tool, residents also experienced barriers inherent in the PH-tool's use in practice. The barriers included doubts regarding the PH-tool's relevance and scope, the boundaries of superspecialised medical professionals, and a lack of demarcation in clinical practice

Doubts regarding the PH tools' relevance and scope

Residents sometimes doubted the relevance and scope of the PH-tool. Specifically, they reported the PH-tool

contained too many statements, which sometimes overlapped across dimensions. This limited its usefulness, as it was too time-consuming to discuss everything during the encounter. Some residents indicated that they attributed more weight to the PH-tool's scores on the general six dimensions (eg, 'mental well-being') than to the detailed statements accompanying each dimension (eg, 'I feel happy'). Likewise, the observations demonstrated that GH-residents mostly discussed the general dimensions during consultations. By contrast, ENT-residents tended to address both the overall dimensions and the specific statements. Furthermore, residents signalled that one specific statement on the PH-tool (ie, 'I know how to get help from official authorities if I need it') was confusing to patients. This came to the fore while discussing the PH-tool as patients often gave a low score for this statement, even though they were already visiting an official authority, namely the resident.

Boundaries of superspecialised medical professionals

Residents also expressed that the PH-tool's broad and general perspective did not always fully align with their role as highly specialised and focused medical professionals. During several outpatient consultations, they felt that the tool's broad and general orientation towards patients' health information was beyond the scope of their highly specialised expertise and their responsibility, as the next quote illustrates: "I couldn't really ask any further because it wasn't within my field of expertise. So that's what I think is difficult when I get information I can't really do anything with." (R6).

Moreover, residents repeatedly stressed that the information obtained seemed without consequences from a superspecialist perspective: it felt either irrelevant, provided no new insights, or seemed not linked to the patients' problem during the outpatient consultation. It then caused residents to disregard the information obtained or inform the patient of the general practitioners' role. In addition, residents felt they lacked time to address all the dimensions in sufficient detail. Resident 7 extensively explained his feelings from a superspecialised perspective regarding the tool's use: "I doubt if I'm the one who needs to talk to the patient about this in detail. 'A', you don't always have the time for it. 'B', I think it's a good thing that someone who's specialised in it may do it. And 'c', it may even be the question as an attending physician whether you should pick that up or whether it is a good thing that someone else does that because of your treatment relationship. You are the person for the complaints and the medical part, and someone else goes a bit more into the psychology, coping, and stuff like that."

Lack of demarcation in clinical practice

A commonly voiced view was that using the PH-tool in practice is not beneficial during *all* outpatient consultations. Residents expressed doubts about the usefulness of using the PH-tool during periodic follow-up consultations, as these encounters were essentially quite straightforward

(eg, they often did not need to explain the treatment to the patient), and the resident often already knew the patient. As resident 4 stated: "But maybe those periodical ear cleaning consultations are so seasoned, and I know, they will sit down and after 15 minutes, I [patient] will be outside again. It doesn't really apply to this specific complaint." Furthermore, both ENT and GH residents felt using the PH-tool was fitting mainly for chronic conditions as these conditions affect several PH-dimensions. Besides, residents thought that the PH-tool's usefulness also depended on the problem's complexity; for simple problems or clearly demarcated requests for help, a broader overview beyond the physical dimension often did not yield useful information. Moreover, in case of verbose patients, using the PH-tool led to overly long consultations, since the tool prompted them to elaborate even more. For this particular population, therefore, residents considered the tool ill-fitted for purpose.

DISCUSSION

This qualitative observational and interview study investigated residents' experiences with the PH-tool's application during outpatient consultations, and its perceived influence on VBHC delivery. Residents had a bivalent perception regarding the tool's use in clinical practice. On the one hand, they perceived various benefits, such as gained insight into the individual patient's context and functioning, changed dynamics in resident-patient communication, and increased awareness regarding value in terms of patient-related outcomes and healthcare costs. On the other hand, they experienced barriers regarding the PH-tool's relevance and scope, the boundaries of super-specialised medical professionals, and a lack of demarcation in clinical practice. The following sections consecutively discuss the implications for practice and the implications for research.

Implications for practice

Our findings indicate that residents perceived the PH-tool as beneficial for specific patients or consultation types. The PH-tool efficiently generate information in patients' situation during new patient encounters, and made treatment plan explanation more tangible during follow-up consultations. The latter was of particular benefit in interactions with patients who had multi-dimensional problems. Besides, residents indicated that the tool was a good fit mainly in the context of chronic conditions. In these cases, residents considered the PH-tool to be of added value since it generated information beyond physical health, efficiently screened the impact of problems on patients' everyday life, stimulated dialogue by prompting patients to engage in the conversation, encouraged patients' self-reflection, or facilitated the tailoring of treatment plan to individual patients' needs. Moreover, gaining insight in a patient's scores well in advance of the encounter may allow residents to more effectively and efficiently screen the patient's overall



situation prior to the consultation. This may help them prepare for the encounter and scaffold the conversation around the general six PH-dimensions. These results are consistent with claims regarding PH's promise to facilitate patients' self-reflection, empower patients, improve communication and draw out patients' own (health) needs and wishes.^{14 22 24}

Furthermore, we found that PH-tool use resulted in residents considering VBHC aspects more deliberately during some outpatient consultations. Potentially resulted from the two perceived benefits above, namely an improved insight into the individual patient's context and functioning, and a changed dynamics in the resident-patient communication. The tool's use had a positive impact on residents' ability to identify what patients deemed most valuable, and to consider the patients' needs from their own perspective. This helped make the encounter more time efficient and patient centred. In addition, using the PH-tool improved both patient-related outcomes and healthcare costs by ensuring a better match between the degree of given care (eg, follow-up intensity) and the individual patient's needs. Therefore, the PH-tool may help the resident and the patient to jointly determine and subsequently deliver the appropriate care. This finding matches the PH-principle of concentrating on the dimension the patient wishes to improve.¹⁴ Thus, using the PH-tool seems a promising strategy to help VBHC delivery in medical decision-making, since it helps residents weigh health outcomes that matter to each unique patient against their associated healthcare costs.

Nonetheless, these results must be interpreted with caution since the PH-tool was not seen as a good fit for simple problems, clearly demarcated help requests, periodic follow-up consultations, or verbose patients. In these cases, residents commonly disregarded the information obtained and the PH-tool did not lead to VBHC decision-making. For example, if the PH-tool proved to be less suitable for use during a particular consultation (eg, periodic follow-up consultation), its usage did not provide useful information for the resident in this context, and was herein unlikely to contribute to VBHC delivery. This finding reflects Prinsen and Terwee's³² suggestion that more clarity is needed regarding the target population. Furthermore, prior research raises concerns about the concept itself, including overlap across dimensions.^{20 32-34} In line with this, our results shows there seems to be overlap across statements within the PH-dimensions, and suggests it is necessary to adapt the tool to optimise fit and use in different contexts and populations. Integrating the PH-tool within residents' current conversation structure in this way may prove expedient given the limited time available in clinical practice. In addition, using the PH-tool was not always compatible with the role of highly specialised medical professionals, which could limit the extent to which residents accepted and used the tool. As the results demonstrate, in some cases the information obtained went beyond the super-specialist scope of residents' expertise and responsibility.

Hence, we recommend that medical education promotes a broader health perspective as an addition to the highly specialised scope of medical professionals. This can be done by introducing PH as a model, and demonstrating how the information obtained through the PH-tool can be of physicians' and patients' relevance during clinical decision-making.

Implications for research

Residents currently function in a policy context which increasingly emphasises the need for a broader health perspective in practice as well as medical education. The Dutch Association of Medical Specialists advocates that future medical specialists (with a focus on year 2025) actively act on the basis of a holistic patient perspective.⁹ Likewise, the renewed Dutch Postgraduate Medical Education framework affirms the need for a different resident role—focusing on health and behaviour instead of disease and care—and promotes PH as a means to achieve this.²⁵ Since this development is still at a preliminary stage, there is no ready-made, one-size-fits-all roadmap for implementing such a perspective.²⁴ To better align the PH-tool's broad intent and clinical practice, we recommend to adapt the tool to its context and use. Further research could provide a more detailed and complete insights into these, including specific information on patient populations, patient problems and clinical purposes.

Additionally, one critique of the PH-concept is that it may lead to the incorporation of all life issues in the healthcare domain and therefore to medicalisation.^{34 35} The assumption here is that healthcare professionals will then come to treat all life issues that emerge when using the PH-tool. Our results seems to contradict this critique since it did not reveal such tendency. However, our findings were preliminary and exploratory; further research should examine within a wider range of contexts and healthcare professionals whether the potential risk of using the PH-tool may be medicalisation.

Strengths and limitations

To the best of our knowledge, this is the first study providing insights into medical residents' experiences of the PH-tool's application in daily clinical hospital practice and, in particular, its perceived impact on VBHC delivery. A strength of the present study is the richness of data obtained through non-participant observations and interviews. The longitudinal design of the study allowed participants to reflect on, compare to, and elaborate on their ongoing experiences with outpatient consultations. This study also has its limitations. First, the potential for participation bias exists, since residents favouring a broader health perspective such as PH, might have been more willing to participate in the study than those ascribing to a narrow perspective. However, we observed that most residents had an ambiguous attitude towards the PH-tool at the study's start, making such a bias less plausible. Second, due to pragmatic clinical practice limitations, it

occasionally occurred that the interview was conducted a few hours (maximum of four) after the observation took place. Consequently, the resident had to recall the specific outpatient consultation. Herefore, at the start of each interview, the researcher recapitulated some patient information to help the resident recognise the consultation in question. Third, we approached residents of a limited number of specialties within one health institution using convenience sampling. Therefore, more research is needed to test these preliminary findings, and generalise the results to other contexts. Despite these potential limitations, the study offers an important contribution to research on the PH-tool's application, and provides direction for practice, education, and further research.

Recommendations for future research

More research is necessary to explore the PH-tool's application and its impact on VBHC within a wide range of other contexts (ie, variety in specialties, residency training years, and healthcare institutions) and patient populations to determine the generalisability of these preliminary results. Moreover, future studies should incorporate the patient perspective in order to adequately assess the PH-tool's potential contribution to patient centeredness.

CONCLUSION

Our study revealed that using the PH-tool can be beneficial for residents during outpatient consultations with new or unfamiliar patients, and follow-up consultations in cases of multidimensional problems, particularly in the case of chronic conditions and generalist care. In these situations, the tool yielded valuable patient information beyond physical health, helped foster patient engagement within conversation, and enabled tailoring the treatment plan to individual patients' needs. On the other hand, the PH-tool was not a good fit for simple problems, clearly demarcated help requests, periodic follow-up consultations, or verbose patients. In addition, it was not suitable for super-specialised care, because it yielded an abundance of general information. For particular patients and problems, using the PH-tool seems a promising strategy to increase VBHC delivery. Nevertheless, further research and detailing is needed to better align the PH-tool's broad intent and clinical practice.

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Acknowledgements Many thanks to the residents for their time and input. In addition, we would like to thank the patients for their time to complete the PH-tool and for allowing the researcher's presence during the consultations.

Contributors LAB, CYGN, BABE and WNKAVM designed the study. LAB and ELJG introduced the PH-principles and the PH-tool to the residents. LAB conducted the data collection. LAB, CYGN, BABE and WNKAVM conducted the data analysis. GY reviewed the data analysis critically. LAB wrote the first draft of the article with critical revisions for important intellectual content by CYGN, GY, ELJG, AAMM, BABE and WNKAVM. All authors reviewed and edited the article and approved the final version of the article. LAB is guarantor.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Not applicable.

Ethics approval The Medical Ethics Review Committee of Maastricht University Medical Center+ and Maastricht University approved this study (Reference no. 3556).

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement No data are available.

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