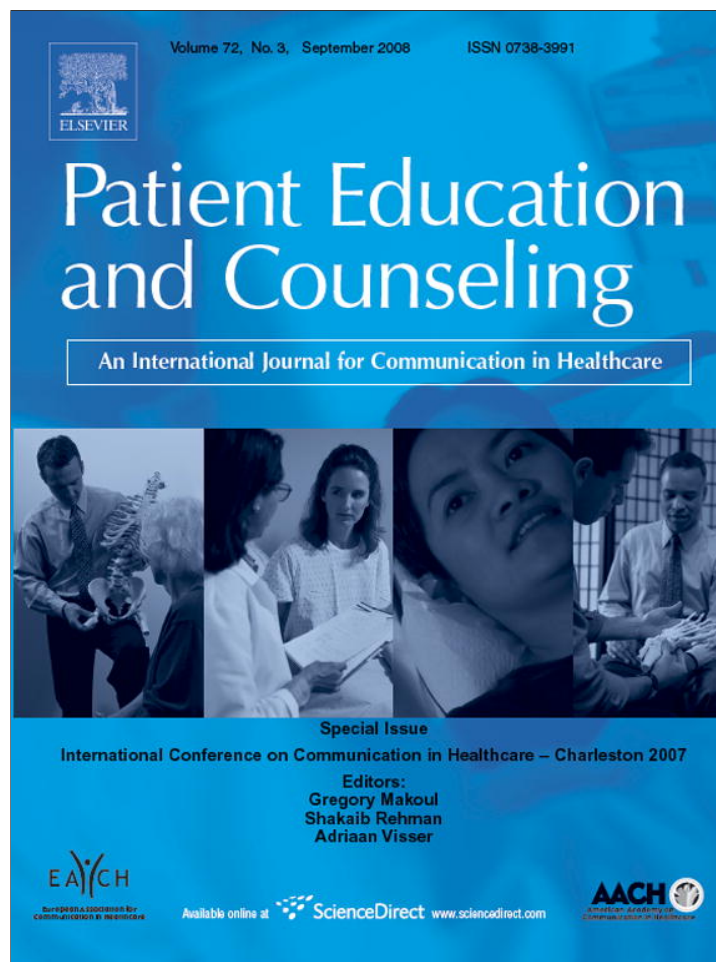


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“Four Habits” goes abroad: Report from a pilot study in Norway

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Abstract

Objective: “Four Habits” is the first larger generic clinical communication program to have a documented effect. It has not been evaluated outside USA. In a pilot study, Norwegian hospital physicians assessed its usefulness, and we developed a questionnaire where patients reported “Four Habits”-specific physician behaviour.

Methods: We ran a 3-day course with 16 participants and three US facilitators. The questionnaire mapping “Four Habits” with 23 items was distributed by participating physicians to 210 patients. Participating physicians met in evaluative focus groups 3 months after the course.

Results: The questionnaire was condensed to 10 items after factorial analysis. The resulting scale performed well. A large amount of missing data on some items suggested that patients found it difficult to evaluate details of “Four Habits”-specific physician behaviour. Participants found that the “Four Habits” short course led to improvement of their encounters. Some elements of the method were not perceived as relevant for all types of encounters (habits II and III).

Conclusion: “Four Habits” is applicable outside US with some adjustments. A shortened version of the questionnaire will be used in a planned randomized controlled trial.

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Keywords: Communication; Counseling; Questionnaire; Focus groups; Norway; Hospital physicians; Outpatient clinics

1. Introduction

Communication skills have evolved as an important part of medical training, mainly in general internal medicine, family medicine, psychiatry, and oncology [1–3]. The first larger training program meant for all clinical specialties was the “Four Habits Approach” developed in the US Health Maintenance Organization Kaiser Permanente and used over the last 15 years [4,5]. The program was developed using principles of adult learning and a systematic review of the evidence in the medical literature linking specific communica-

tion skills with functional and biomedical outcomes of care [5]. “Four Habits” refer to what should happen in clinical consultations; that it has a friendly and well-planned beginning, a search for the patient’s perspective, empathic response, and thorough information giving, shared decision making, and check of the patient’s understanding and adherence to advice towards the end. The “Four Habits” program consists of fairly short introductory courses (2 h for each habit) available in all Kaiser Permanente’s medical groups, and a more extensive course over 5 days for physicians with low patient satisfaction ratings. For the latter, observational studies have shown that the approach is effective in increasing and maintaining patient satisfaction for at least 6 months (the length of follow up) [5]. In terms of assessment, a valid and reliable coding method for video observation of the behaviour elements of the “Four Habits” has been developed, the Four Habits Coding Scheme

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(4HCS) [6]. No such instrument has been developed for patients, who are typically asked to fill out retrospective questionnaires assessing global aspects of communication with little specificity. In summary, a gap exists in methods for assessing patient experience of care and physician performance of communication skills.

Studies indicate a discrepancy between physicians' and patients' perceptions of what happens during a medical encounter [7,8]. If the Four Habits teaching method proves effective and is implemented on a large scale, routine use of videotapes for assessment would be less feasible than a valid and reliable questionnaire. There is a general trend toward the use of questionnaires that map specific behaviours more than opinions, and so are actionable by physicians. Hence, a questionnaire utilized by patients to evaluate whether "Four habits" behaviour elements were present in their encounters would be helpful.

As preparation for a large-scale trial of the Four Habits Approach a pilot study was conducted with two purposes in mind. One was to test the feasibility of a questionnaire based on the types of behaviour recorded in the 4HCS. Secondly, as specialist care is organized differently in Norway and the US, we wanted to explore how the "Four habits" approach was experienced by Norwegian hospital physicians in their practice.

2. Methods

2.1. Course

The course was held on 21–23 August, 2006 with three of the authors as facilitators (RF, EK, DGS). The main outline of

the course was to present and discuss the Four Habits in plenary sessions separated by training sessions for each habit, with role-plays in groups of 5–6 physicians with one American facilitator and one Norwegian co-facilitator (AF, PG, Øivind Ekeberg). The physicians played both patients and physicians with feedback from the facilitators. As a didactic tool we used parallel process, that is; the way we communicated with the participants mirrored the way physicians should communicate with patients [9]. For example, after initial presentation of facilitators and participants, the facilitators explored the participants' needs and expectations. Likewise, at the end of the course, as one might in a patient care situation, the facilitators explored barriers to implementation. After the course, group members were prompted to contact group facilitators and other group members by mail, and the group leaders ascertained this communication had occurred by 2–3 weeks after the course.

2.2. Sample

We recruited 11 physicians from Akershus University Hospital (two did not show up for the course), and seven from other Norwegian hospitals. They were selected among interested and motivated physicians to represent senior as well as junior physicians and as many specialties as possible. The 16 physicians were 11 seniors and 5 juniors, representing internal medicine (5), neurology (4), gynaecology (3), paediatrics, psychiatry, surgery, and family medicine (one each). Eleven were men, the age range was 29–61 years with 11 between 35 and 50 years of age. Juniors, women, and specialties were assigned to three groups with maximum possible spread.

Table 1
The Four habits questionnaire, pilot version

Habit	Item	Question
I	1	Did the doctor seem to know the important information about your medical history?
I	2	At the beginning of the visit, did the doctor meet you in a way that helped put you at ease?
I	3	In exploring your health concerns, did the doctor give you a good chance to express yourself in your own words?
I	4	Did the doctor encourage you to fully describe your health concerns?
I	5	Did the doctor ask about all of your health concerns rather than just focusing on the first one you mentioned?
II	6	Did the doctor seem interested in finding out how you thought about the health concerns?
II	7	Did the doctor ask about your expectations for the visit?
II	8	Did the doctor seem interested in finding out how your current health problems are affecting your daily life?
III	9	Did you get good eye contact with the doctor?
III	10	Did the doctor seem sensitive to your feelings?
III	11	Did you feel that the doctor was interested in you as a person?
III	12	Did the doctor encourage you to express any emotions that you felt?
III	13	Did the doctor do anything to help you feel okay about whatever emotions you were feeling?
III	14	Did the doctor help you to understand your feelings better?
IV	15	Did the doctor give you information that directly addressed the concerns you had expressed?
IV	16	When the doctor gave you information, did s/he give you as much time as you needed to understand it and absorb it?
IV	17	When the doctor gave you information, was it clear and in words you could easily understand?
IV	18	After the doctor gave you information, did s/he make sure to find out how well you understood the information?
IV	19	Did the doctor encourage you to be as much involved as you would like in the decisions about your health care?
IV	20	Did the doctor check to see if the treatment plan was okay with you?
IV	21	Did the doctor make sure if you would be able to carry out the treatment plan?
IV	22	Toward the end of the visit, did the doctor encourage you to ask any questions?
IV	23	Toward the end of the visit, did the doctor make clear and specific plans about what you should do as a follow-up?

Habit I: invest in the beginning; habit II: elicit the patient's perspective; habit III: demonstrate empathy; habit IV: invest in the end.

2.3. Questionnaire

We developed a questionnaire with 23 items concordant with the observational items in the 4HCS [6] and the elements of “Four Habits” [4], and adjusted phrasing after the review of three American and one Norwegian validated patient satisfaction survey instruments [10–13]. We chose a four-point all-anchored response scale (definitely yes = 1, somewhat yes = 2, somewhat no = 3, definitely no = 4). The CAHPS (Consumer Assessment of Healthcare Providers and Systems, USA) general satisfaction question was used as internal validating question in the pilot questionnaire. The items are listed in Table 1 according to the Four Habits. Participating physicians were prompted to give a maximum of 25 patients before (June–July 2006) and 25 patients after (September 2006) the course a sealed envelope with a questionnaire. Patients were asked to complete the questionnaire at home and mail it directly to the primary investigator. The participants did not see the questionnaires.

We evaluated the items based on number of missing, item-habit correlations, Cronbach's alphas, and item/habit-satisfaction correlations (absolute values since the item scales were 1 (best) to 4 (worst), while the CAHPS satisfaction scale was 0 (worst) to 10 (best)). All correlations are given as Spearman's rho. We used principal component analysis (PCA) to extract important components and decide on inclusion and exclusion of items for further development of the questionnaire. We then calculated the physician-level reliability of items and scales under varying sample size assumptions using intraphysician correlation and the Spearman Brown Prophecy Formula [11].

2.4. Focus groups

Three months after the course, the three training groups in the course met separately to discuss their experiences with their Norwegian facilitators present. Some open-ended questions (Table 2) were given to all groups when the discussion after the previous question subsided and no new information emerged, except for this the discussions ran freely. The first author attended all groups and wrote down the discussion in real time on a PC. Later, the texts were analysed by the first author and an anthropologist (Ellen Kristvik) looking for signs of incompatibility between the course content and Norwegian practice, and suggestions for improvement or tailoring. Content similar to all groups was extracted as well as particularly informative singular statements [14].

Table 2
Key questions to focus groups

Which changes did you commit yourself to after the course, and what happened in practice?
What did you learn that proved most useful in your practice?
What did you learn that did not prove useful in your practice?
Tell us about one consultation that developed otherwise than expected because you implemented something you learnt at the “Four habits” course
Overall, did you find what you learnt applicable to the practice of Norwegian specialists of your kind?

3. Results

3.1. Questionnaires

Two hundred and ten questionnaires were received, 56 from men, 148 from women, 6 did not identify their gender. The age distribution was skewed. For further analysis, patients were grouped into four with equal age ranges. Eleven patients were 23 years or younger, 60 patients were 23.1–46 years, 88 patients were 46.1–69 years, 47 patients were older than 69 years. Four patients did not give their age. Thirty-one patients knew the physician well, 48 patients knew the physician a little, while 130 patients did not know the physician. One patient did not answer this question.

Two of the physicians did not recruit patients because they did not have outpatients during the months we collected data. For the others, the range of received questionnaires was 1–31 (median 14.5). 92 (44%) of the questionnaires were from patients visiting a neurologist, 67 (32%) had seen internists, most of them gastroenterologists, and 29 (14%) had visited gynaecologists.

Two hundred and six of 210 completed the satisfaction scale (0 worst possible—10 best possible consultation). The mean was 8.71 (S.D. 1.75), median 9 and mode 10. Female patients were significantly more satisfied than male patients ($p = .023$; Mann–Whitney test). Patients equal to or above 46 years were significantly more satisfied than patients under 46 years ($p = .004$; Mann–Whitney test).

All items were strongly skewed towards “definitely yes”. Ten of the items had missing values above 10%, one in habit II (item 7), three in habit III (items 12–14), and six in habit IV (items 18–23). Due to the high level of missing values, these items were excluded from further analyses.

Thirteen items were included in the PCA with varimax rotation which gave two components with Eigenvalues of 5.89 and 1.23 that explained 45.3% and 9.5% of the variance (Table 3). The use of oblique rotation did not help the interpretation of the component composition and the component correlation matrix comprised low correlations. Since the explained variance of the former component was more than four times that of the latter, we decided to use only the former [15,16]. All items had factor loadings above .4. To improve Cronbach's alpha another three items (1, 5, and 17) were excluded leaving ten items, three from habit I, two from habit II, three from habit III, and two from habit IV. The Cronbach's alpha of the resulting scale was .895, satisfying the much-used criterion of .7 [17,18]. The scale was significantly correlated with general satisfaction (.613, $p < .0005$) and with better prior knowledge of the physician (.151, $p = .029$), but not with the patient's age (.056, $p = .43$) or gender (t -test for equality of means = $-.227$, $p = .82$).

Physician level reliability of the items is also shown in Table 3. The larger the standard deviation of physician effect, the more physicians tended to diverge on the item. The larger the observed physician level reliability, the more consistent patients tended to rate the physician. The right column shows that with 40 patients per physician the questionnaire would return reliable item and scale values except for item 3 (Made me use my own words) and item 10 (seemed aware of my feelings).

Table 3
Items included in scale after the principal component analysis

Item (habit)	Missing (%)	Mean (S.D.)	Corrected item-total correlation ^a	Cronbach's alpha if item deleted	Standard deviation of physician effect	Estimated physician-level reliability (n = 40)
2 Made me relax (I)	3 (1.4)	1.20 (.51)	0.64	0.89	n/c	n/c
3 Made me use my own words (I)	7 (3.3)	1.15 (.45)	0.58	0.89	1.2	0.19
4 Made me give full description of concerns (I)	11 (5.2)	1.52 (.78)	0.68	0.88	8.6	0.83
6 Showed interest in my thoughts about the problems (II)	4 (1.9)	1.32 (.67)	0.70	0.88	7.7	0.84
8 Showed interest in problems' effect on daily life (II)	12 (5.7)	1.69 (.87)	0.70	0.88	10.5	0.86
9 Made good eye contact (III)	1 (0.5)	1.13 (.36)	0.48	0.90	n/c	n/c
10 Seemed aware of my feelings (III)	13 (6.2)	1.45 (.69)	0.80	0.87	3.1	0.42
11 Seemed really interested in me as a person (III)	6 (2.9)	1.50 (.75)	0.75	0.88	5.8	0.70
15 Linked information given directly to my concerns (IV)	19 (9.0)	1.51 (.78)	0.55	0.89	6.0	0.69
16 Gave me time to understand and absorb information (IV)	21 (10.0)	1.39 (.62)	0.59	0.89	4.7	0.69
10 item composite					4.6	0.78

Based on 14 physicians, average of 15 responses per physician (range 1–31). Cronbach's alpha for scale = .895 (N = 10 items). Physician level reliability. n/c = non-computable.

^a All correlations $p < .001$.

3.2. Focus groups

Eleven physicians attended the focus groups. Of the five who did not, three could not because it would acquire travelling by plane. All 11 physicians had tried some of the elements of "Four Habits", and many had tried all. Training styles varied greatly. The majority trained systematically, one videotaped himself to study his own consultations. Overall participants' experiences with "Four Habits" were positive, but it was noted that the approach did not suit all kinds of encounters, e.g. if the patient just had been referred in order to perform an investigation. Several had felt that it was necessary to focus on one habit at the time. Those few who had tried to do everything "right" found that they lost focus and temporarily performed worse than before. Almost all participants emphasized how useful it was to think about the consultation in a structured way.

"This was very useful for me, never had anything like this course before. Puts names on things and very structured—that was important." (Physician 1, Gynaecologist)

"After a while, I was more relaxed about doing everything right all the time, and this worked much better." (Physician 12, Gynaecologist)

"I started to train on one habit a day, sequentially. I always have to train like that. After a while, I gradually improved" (Physician 7, Gastroenterologist)

"I have used "Four Habits" as a checklist, this has made it easier to me. And then I have filled in holes in the model after my own need." (Physician 2, Neurologist)

"Enthusiasm has fallen on my part. Mostly because my main activity is to perform endoscopies. "Four Habits" doesn't suit that situation well." (Physician 4, Gastroenterologist)

Most of the physician had dedicated themselves to train on habit I or habit IV, and these were also the habits that they felt made greatest impact on their practice. The technique of using open-ended questions in the beginning had been adopted by many. They felt that they got more relevant information more quickly than they had done before. But those who did so without initial small talk had observed that it scared patients somewhat, in particular if the patient had got the impression that the physician did not know their history. Quite a few were surprised by the positive effect of silence, and many had seen that "the doorknob syndrome" (patients raising additional concerns at the very end of the visit as the physician has his or her hand on the doorknob ready to leave) vanished.

"We've been trained to go directly to crucial questions in the emergency unit. But often I get quicker through the agenda using "Four Habits" (Physician 9, Internist)

"I've really become more aware of how fast I tend to start to control the conversation." (Physician 8, Surgeon)

"It occurred to me that I much too seldom ask open questions. I remember a lady with dementia. I asked an open question, and waited. Then she said four clear, meaningful sentences." (Physician 7, Gastroenterologist)

"If I start with too open questions, then they get sceptical." (Physician 9, Internist)

"The effect of silence – was really a nice surprise. I wasn't aware of that at all before the course. It works at home, too!" (Physician 12, Gynaecologist)

"When I asked open questions, I got aware of how much more concentrated I needed to be. Consultations improved." (Physician 14, Neurologist)

Almost all participants – across specialties – said that focusing on habit IV had improved their consultations greatly. Improvements were several, a number of physicians stated that they had become better at preparing the end of the consultation earlier and conducting it more systematically. A few felt that they had used too much time on this in the beginning, but that it did not take long before they adjusted. Some thought habit IV was just as important as habit I regarding the vanished doorknob syndrome.

“Towards the end, I’ve really cleared up some misunderstandings. I mean, these are quite advanced things, MR, X-ray, angiographies, team discussions, treatment alternatives...” (Physician 8, Surgeon)

One female gynaecologist who wanted to focus on habit III, found it useful, but difficult, and wanted more training. Seemingly, habit II was met with mixed experiences. Many participants thought perhaps Norwegian patients might be more informed, by their family physician or maybe in general. At least they had not encountered large discrepancies between patients’ understanding of the problem and their own. One internist thought he had seen such discrepancies quite often, and thought his improvement on habit II was important.

“I don’t get that very well, the patient’s perspective. Neither the question about expectations for the visit. It seems to be a bit out of place.” (Physician 12, Gynaecologist)

“Very often the patient has thoughts about his disease or symptoms very different than you can read out of a referral—I think I’ve been working quite a lot with that.” (Physician 9, Internist)

“My patients seem well informed. Maybe it’s from the GPs?” (Physician 8, Surgeon)

“I found habit III difficult, even though I gave priority to it – it is still difficult – but I am more aware, if I feel it isn’t optimal, I’ve got it in my head.” (Physician 1, Gynaecologist)

4. Discussion and conclusion

4.1. Discussion

4.1.1. The questionnaire

The questionnaire was designed to map the occurrence of specific physician behaviour, as perceived by the patients. We derived a scale that satisfied formal criteria [15,16]. Its validity was supported by correlations with general satisfaction and knowledge of the physician. Lack of correlation with age and gender is an advantage.

The items excluded due to high level of missing values were with one exception from habits III and IV, and the exception was the item about asking the patient about expectations for the visit. For referred patients, to ask for expectations for the visit

(item 7) may suggest lack of information and surprise the patient. An exploration of feelings (habit III, items 12–14) is crucial in a longitudinal relationship, but might be perceived as intrusive or even impertinent in cases where the specialist is only expected to perform an examination or a therapeutic procedure. As well, receiving information requires lots of concentration from patients. Asking them to describe the specific ways in which the physician accomplishes this task is probably too burdensome (habit IV, items 18–23). The questionnaire was not particularly long and the questions were not difficult to comprehend, so we think cognitive demand is a less likely explanation for the missing values.

4.1.2. Physicians’ experiences

The elements of “Four Habits” are generic for medical encounters. None of our participants doubted its effectiveness. As in the US, participating physicians had observed that, in the long run, they did not lose time, even though some did initially because they were too focused on own performance. As well, all described encounters that produced new, important information they thought they would not otherwise have gotten if it were not for the “Four Habits” approach.

The Norwegian physicians’ experiences underscore the importance of viewing these skills as habits that need to be trained systematically. We also saw that habits I and IV were more easily recognized as important and useful than habits II and III. We might not have been able to convey the importance of these habits strongly enough in the course. At the same time, we had the impression that habit II was not considered relevant in several types of specialist encounters. The questionnaire response showed both large between-physician variance and high intra-physician reliability for habit II items, suggesting clearly diverging styles among physicians. This might follow from them having very different tasks. As for habit III, most of the physicians were confident that they did well at the skills associated with this habit before the course. The results from the patient survey support this assertion, in particular the items “made me relax” and “made good eye contact” were unanimously positive so physician level reliability was not computable. However, it is possible that it is harder to acquire insight or train on ones own when it comes to empathy.

This was a pilot and as such has several limitations. Mainly, physicians were highly motivated, response rates for patients were not secured accurately and results may not be extrapolated to a general physician or patient population. However, for the first exploration of a questionnaire this is not critical, and these issues will be addressed in the randomized controlled trial to follow. Since the first author transcribed the focus group sessions, it is also possible that the reported physician response is biased in a positive direction.

4.2. Conclusion

The “Four Habits” was applicable with small adjustments among Norwegian hospital physicians. Even if the “Four Habits” is distinct and important as didactic tool in professional teaching, patients are not able to recognize all specific elements

and report them in a questionnaire. Thus, patient questionnaires might not be as suitable for the evaluation of specific physician behaviour as video coding schemes [6]. There are enough items left to explore correlations between patient responses and video observations in the randomized controlled trial that will follow on the heels of this pilot study.

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