BMJ Open

BMJ Open is committed to open peer review. As part of this commitment we make the peer review history of every article we publish publicly available.

When an article is published we post the peer reviewers' comments and the authors' responses online. We also post the versions of the paper that were used during peer review. These are the versions that the peer review comments apply to.

The versions of the paper that follow are the versions that were submitted during the peer review process. They are not the versions of record or the final published versions. They should not be cited or distributed as the published version of this manuscript.

BMJ Open is an open access journal and the full, final, typeset and author-corrected version of record of the manuscript is available on our site with no access controls, subscription charges or pay-per-view fees (http://bmjopen.bmj.com).

If you have any questions on BMJ Open's open peer review process please email info.bmjopen@bmj.com

BMJ Open

Do physicians in the lead support a holistic healthcare delivery approach? A qualitative analysis of the stakeholders' perspectives

Journal:	*BMJ Open*
Manuscript ID	bmjopen-2017-020739
Article Type:	Research
Date Submitted by the Author:	21-Nov-2017
Complete List of Authors:	Malik, Romana; OLVG Hospital, Department of Research and Education Hilders , Carina ; Erasmus School of Health Policy & Management Scheele, Fedde; OLVG Hospital , Department of Research and Education ; Athena Institute, Faculty of Earth and Life Sciences, VU University
Primary Subject Heading:	Health policy
Secondary Subject Heading:	Health services research, Health policy, Medical management, Patient-centred medicine, Qualitative research
Keywords:	Medical leadership, Physicians, Holistic care, Value-based healthcare, HEALTH SERVICES ADMINISTRATION & MANAGEMENT, Healthcare delivery

SCHOLARONE™
Manuscripts

1
2
3
4
5 **TITLE**
6 Do physicians in the lead support a holistic healthcare delivery approach? *A qualitative*
7
8 *analysis of the stakeholders' perspectives*
9
10
11 **AUTHORS**
12
13 Romana F. Malik (RM) M.D.[1]
14
15 Carina G. J. M. Hilders M.D., Ph.D.[2]
16
17 Fedde Scheele M.D., Ph.D. [3, 4, 5]
18
19
20 **AFFILIATIONS**
21
22 [1] Department of Research and Education, OLVG Hospital, Jan Tooropstraat 164,
23
24 1006AE, Amsterdam, the Netherlands.
25
26 Telephone: +31-20 510 8960 @ romana_malik@hotmail.com
27
28
29 [2] Erasmus School of Health Policy & Management, Rotterdam, Burgemeester Oudlaan
30
31 50, 3062 PA, the Netherlands. Telephone: +31-10 408 9177 @ C.Hilders@rdgg.nl
32
33 [3] Department of Research and Education, OLVG Hospital, Jan Tooropstraat 164,
34
35
36 1006AE, Amsterdam, the Netherlands.
37
38 Telephone: +31-20 480 7651 @ f.scheele@olvg.nl
39
40 [4] VU Medical Center, Amsterdam, the Netherlands.
41
42
43 [5] Athena Institute, Faculty of Earth and Life Sciences, VU, Amsterdam, the Netherlands.
44
45
46
47 **CORRESPONDING AUTHOR** Romana F. Malik (MD) OLVG Teaching Hospital, Department of
48
49
50 Medical Education, Jan Tooropstraat 164, 1006 AE Amsterdam, the Netherlands
51
52 Telephone: +31-205108292 @ romana_malik@hotmail.com
53
54
55 **WORD COUNT** 4258 words (Main text, excluding abstract, endnotes and exhibits)
56
57
58
59
60

For peer review only

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60

STRUCTURED ABSTRACT

Objectives Value-based healthcare (VBHC) implies that healthcare issues are addressed most effectively with the strategy of 'Physicians in the lead' (PIL). This study explores whether PIL also supports an holistic care approach that is increasingly demanded by patients.

Design A qualitative research design was used.

Setting This study was conducted in a general hospital in the Netherlands at a gynaecology department with an integrated strategy of PIL.

Participants Semi-structured interviews were conducted with 14 hospital stakeholders: 13 stakeholders of a gynaecology department (the client board (n=1), nurses (n=2), midwifes (n=2), physicians (n=2), residents (n=2), the middle management (n=2) and the Board of Directors (n=2)) and a member of the Committee Innovation Healthcare Professions & Education.

Results PIL does not support a holistic healthcare delivery approach, mainly because of the strong biomedical focus of physicians. Although physicians can be educated to focus more on the holistic outcome than on cure and treatment, holistic care delivery requires more integration and teamwork in the hospital and across facilities in the care chain. As different healthcare professions are complementary to each other, a new strategy of a 'team in the lead' was suggested to meet the holistic healthcare demands. Besides a new strategy, there is a need for an extramural institution where patients are able to receive support in managing their own care. This institution should also facilitate services similar to the core function of a church or community centre. These services should help patients to deal with different holistic dimensions that are important for their wellbeing.

Conclusions PIL seems to hinder holistic healthcare delivery. A 'team in the lead' approach should be considered to meet the holistic healthcare demands. Further research should focus on observing PIL in different cultures and exploring the effectiveness of the strategy ' team in the lead'.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

STRENGTHS AND LIMITATIONS OF THIS STUDY

- To our knowledge, this is the first study to explore the strategy of PIL in the transition to holistic healthcare.
- As little is known about the advantages, disadvantages, opportunities for improvement and risks of the strategy PIL, it was convenient to conduct an exploratory study.
- The study is limited by the fact that it was conducted in one country. As the strategy of hospitals differ among countries, the content may be less relevant to settings without a strategy of PIL.
- Hospital stakeholders are internally oriented, which may have influenced the way they described the organization of holistic care.
- Because our results are based on interviews with stakeholders, they are likely to present a limited picture of the effects of the strategy of PIL on the transition to holistic healthcare.

For peer review only

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

INTRODUCTION

The healthcare system, which is traditionally organized around acute care delivery, seems to be inadequate for managing the changing healthcare demands of the increasing number of chronically ill and ageing patients.(1;2) To comply with these demands and manage the growing impact they have on the national healthcare budgets, a different approach to healthcare delivery is needed.(3-5) A relevant concept that is in line with the changing demands of patients is 'Positive Health' of Huber et al.(6) This holistic concept entails that the care approach to being 'healthy', which is currently mainly focused on biomedical facets such as diseases and their treatments, should also consider other dimensions of patients' lives, such as their psychological, social, and spiritual well-being (meaningfulness), their quality of life and their daily functioning.(6) Integration of these dimensions in the strategic approach of healthcare delivery may contribute to health system innovations.

In the process towards a feasible holistic healthcare delivery approach, several transition designs have been developed, among which Porter's 'Value-Based Healthcare Delivery' (VBHC).(7) VBHC uses a strategy of 'Physicians in the lead' (PIL). This strategy entails that physicians are engaged in organizational processes and that they are responsible for the quality and efficiency of their unit's care delivery. This arises from the belief that physicians have the power to lead the reform of healthcare and to provide care in an efficient way that takes the quality and costs into account.(8) The overarching aim is to create value for patients, where value is defined as the patient health outcomes per dollar spent.(7) This high-value care delivery system should be able to manage the healthcare needs of patients and control the high costs in healthcare.

For peer review only

VBHC comprises six interdependent components: 1. organizing healthcare around patients' medical conditions (a full care cycle) rather than around physicians' medical specialties, 2. measuring costs and outcomes for each patient, 3. developing bundled prices for the full care cycle, 4. integrating care across separate facilities, 5. expanding geographic reach, and 6. building an enabling IT platform. VBHC provides many elements that could support the desired health concept of holistic care. It includes medical rehabilitation in the full care cycle, for instance, which is a way to improve health outcomes. It is based on value for patients from the perception of the patients. Moreover, it prescribes integrated care that exceeds the traditional boundaries of care that is usually provided by a physician.

Although the transition to VBHC in the healthcare delivery approach is already being implemented, it has not been sufficiently substantiated in the literature whether the strategy 'PIL' actually leads to the demanded holistic care. Although Porter does provide an approach to the full cycle of care and to health outcomes, studies on the implementation of VBHC in clinical practice do not comprise such holistic features of health proposed by Huber et al. Moreover, Huber showed that there is a large discrepancy between the perspectives of patients and care professionals concerning the relative importance of the various dimensions.(6) Whereas patients and nurses find all six dimensions almost equally important, physicians indicate dimensions other than bodily functions as less important. As patients seem to have a broader view on their health than physicians do and physicians do not seem to sufficiently recognize the holistic nature of patient needs, the question arises whether PIL are capable of introducing holistic care.

For peer review only

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

The aim of this research was to elicit various stakeholders' perspectives on the strategy 'PIL' in the transition to holistic healthcare and to establish views on the advantages, disadvantages, opportunities for improvement, and risks of the PIL strategy in this transition.

For peer review only

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

METHODS

Setting

This study was conducted in a general hospital in the Netherlands at a gynecology department that was halfway in the process of implementing VBHC and that already used an integrated strategy of PIL. Although all physicians in a unit share responsibility regarding the quality and efficiency of healthcare delivery, there is one physician in the lead in every unit. This physician in the lead receives support from an operational manager and a business administration manager, but remains ultimately responsible for the organizational processes, the performance, and the quality of healthcare delivery of the unit. Besides the managerial tasks, the physician in the lead is primarily required to remain a clinician. The Board of Directors facilitates management programs and monitors the results as well as the compliance of the unit with the interests of the hospital.

Study design

An interpretative and descriptive, qualitative design was used, based on the principles of phenomenology.(9;10) By using these principles, knowledge was gained from an accurate and deep understanding of the stakeholders' perspectives from their individually perceived experiences.

Participants and procedure

Between April and June 2016, a physician (RM) conducted semi-structured face-to-face, in-depth interviews with members of all groups of stakeholders of a gynecology department; the client board (n=1), nurses (n=2), midwifes (n=2), physicians (n=2), residents (n=2), the

For peer review only

middle management (n=2) and the Board of Directors (n=2). In addition, a member of the advisory board for the Ministry of Health was interviewed: the Committee Innovation Healthcare Professions & Education (n=1). All 14 stakeholders were approached for inclusion by e-mail invitations, and all agreed to participate. Initially, the number of participants was predetermined, yet, data saturation was taken into account for this research and was reached. Each interview had an estimated duration of 30 to 60 minutes. The Ethical Review Board of the hospital waived ethical approval for this study.

Patient involvement

Patients' perspectives receive a growing attention in the healthcare delivery approach. Patients' preferences, priorities and experience are important markers that help patients and physicians in the shared decision making care process. The strategies that are implemented in healthcare should support such developments and should be constantly optimized to meet the healthcare demands of patients. In order to meet the holistic healthcare demands of patients, it is needed to explore whether the strategy of PIL support a holistic approach. The client board of the hospital was involved in this research to represent groups of patients. Patients were not involved in the recruitment to and conduct of the study.

Data collection

Keywords and phrases such as "Physicians in the lead", "medical leadership", "value-based healthcare", "holistic care", "healthcare transition", "healthcare delivery" were used in the search engines PubMed and Google Scholar to find relevant literature in order to

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

theoretically frame the transition to value-based and holistic healthcare delivery and PIL. A tailored topic list was drafted from theoretical concepts to structure the interviews and to organize the data collection (Exhibit 1). In view of the exploratory goal of the study, questions were mainly open. All participants provided written informed consent for audio-recording the interview and publishing the data.

Analysis

The interviews were transcribed verbatim. The transcripts were anonymised for anyone other than the interviewer (RM). A qualitative data analysis software program (MAX.QDA 2007) was used for coding the narratives. Data were categorized with open and axial coding. This process was guided by the concept of Huber et al. and the research questions.(11) In the final step of selective coding, core variables were identified.

For peer review only

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60

RESULTS

Three central themes were derived from the analysis of the stakeholders' perspectives: the strategy of PIL in the transition to holistic healthcare delivery, the required organization of the transition, and a new strategy for hospitals to achieve holistic healthcare delivery.

PIL in the transition to holistic healthcare delivery

All stakeholders mention that a transition to value-based and holistic healthcare delivery seems to be inevitable and a very desirable development. But is introducing 'PIL' the same as introducing holistic care in the hospital?

Advantages

All stakeholders agreed that the main advantages of PIL are related to the dimensions 'bodily functions' and 'daily functioning' of Huber et al. The physicians themselves say that they are able to look at a patient with a holistic view. The extent to which the physician has a holistic view however, depends on the physician's specialty.

"Geriatricians and oncologists will look not only at the bodily functions but will have a broader view of components that add value for patients" (Resident) Besides, the physician's experience can have a beneficial influence on the extent to which the physician is capable of providing holistic care.

The physicians can lead the practice, as they have knowledge about the physical needs of patients, the treatments available for diseases, the resources that are needed for patient care, and developments in medical care. A physician in the lead is thought to make different decisions if the focus is on healthcare outcomes and quality of life. Physicians have a certain influence within a team, which can help in transferring a holistic vision to the rest of the

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60

team.

Disadvantages

The first disadvantage of PIL for providing holistic healthcare is time. The short time frame physicians have for each patient does not make it possible to deliver holistic care.

"A physician has ten minutes for each patient, they do not have time to check whether patients are healthy on all these dimensions. Moreover, I do not see any physician doing this." (Nurse)

A second disadvantage is that physicians have a narrowed view due to their strong biomedical focus. This focus is often at the expense of other dimensions; for instance, this view rarely includes meaningfulness as part of the spiritual dimension. This may result in more focus on diagnostics and interventions than desirable. A third disadvantage concerns the physician's engagement in management and leadership tasks. Initially a physician is considered as a clinician and not a manager. The management course that is provided in the hospital under investigation is considered insubstantial, as managers usually study management for years. The time a PIL gets to be ultimately responsible and run a unit is insufficient, as they still provide care and managing a unit is a complex and full-time task. PIL manage to take care of their own unit, but they seem to lose sight of the bigger picture and do not act in collaboration with other units, and the hospital's interests.

Opportunities for improvement

The main opportunity for improvement is educating physicians in the delivery of holistic healthcare, but also in management and leadership. A second opportunity for improvement is collaboration with other professions, such as nursing. Awareness of the content of the

For peer review only

work of other professionals is important, as is awareness of the way in which they are complementary to each other.

"We work with nurses every day, but we do not know anything about the content of their education and what exactly they are competent and authorized to do."(Resident)

For the current PIL, a broader view based on collaboration and interrelations between units and responsibility for hospital interest besides the unit's interests can be developed by means of educational programs. Furthermore, not every physician is able to be a leader or manager. This means that some physicians should mainly focus on patient care and some should focus more on leadership and management tasks in addition to patient care.

Risks

Threats are mostly related to the consequences of the disadvantages or to failure to implement the opportunities for improvement. One of the risks is that holistic healthcare is not achieved because of the strong biomedical focus. Another risk is raised when self-interest of the unit is prominent, rather than the interrelations with units. This has the consequence that the hospital may not provide a full cycle of care for patients. Furthermore, physicians may act based only on financial incentives and favor financial profit over quality of care. On the other hand, physicians may favor quality over cost-containment. Therefore, physicians are expected to work in the context of efficiency that considers both the costs and quality of care. Moreover, a hierarchic structure, where only the physician is in the lead, can cause insufficient representation of the perspectives of other professions. For other professions, it can be very hard to make a change. It is important that the other professions feel that they are being heard by the physician in the lead.

For peer review only

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

"With this strategy there is one doctor at the top, if the doctor has a different view than the rest of the team, it is a burden for the team." (Midwife)

Required organization of holistic healthcare

From the stakeholders' perspectives, it became clear that the strategy of PIL is not sufficient to meet the holistic requirements proposed by Huber et al. However, all the participants confirmed that all six dimensions should be considered as important healthcare outcomes. As patients' health outcomes are not yet systematically measured, there is a lack of clarity about who should be the one to take the lead in detecting the needs of patients and arranging the process needed to improve their health status. All stakeholder groups mentioned that the care is supposed to be value-based and holistic, but that this is often not yet the case in practice. It appears to be an issue to organize holistic healthcare.

"The reality is always more persistent than the ideas that are being launched. Things always turn out differently than the perspectives that are outlined. As a patient, you are subject to this." (Client Board)

For peer review only

The care chain

In order to provide value-based and holistic care, it is essential that the healthcare providers have a shared vision. From the perspectives of several stakeholders, patients should be supported in the direct environment or infrastructure outside the hospital in order to achieve holistic healthcare. Nevertheless, a holistic approach should be the core of care delivery of every link in the care chain, including hospitals. This means that professionals in hospitals should consider the dimensions that are essential for patients to improve their health and refer them to others if necessary. The arrangements for support and care

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

delivery should be made along the total care chain, as every link within the care chain contributes and adds value in its own way to the holistic picture. This can only be achieved by collaboration between a variety of disciplines in and outside the hospital.

Roles in the organization of holistic healthcare

From the stakeholders' perspectives, five important roles were defined besides PIL in organizing holistic care:

Patients

All stakeholders agreed with the need for empowering patients. The structure of 'patients in the lead' was mentioned several times. Patients in the lead were thought to be able to take responsibility for their own health and to manage their care in a holistic way as far as possible. Illness and age were mentioned as possible reasons why patients may not be able to take responsibility for their own health.

"In current society, people were not raised with the mentality to take responsibility for their own health and manage their own care. It will take a generation to achieve this." (Doctor)

Support is thus needed to guide and help patients in coordinating and managing their own healthcare. Patients who are still not capable to manage their care, despite receiving support, are dependent on safety nets. At this point, the question emerged who should help the patient by fulfilling a coordinating role if these limits are reached and who should take the lead in coordinating the healthcare of these patients.

Informal caregivers

A marked difference emerged in the perspectives of the various stakeholders on the role of informal caregivers. The representatives of the Committee Innovation Healthcare

For peer review only

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

Professions and Education and of the Board of Directors outlined that there is a great reliance on informal care, yet they were confident that informal caregivers can provide a large part of the care that is needed. Several other stakeholders mentioned that society is increasingly individualistic, which makes informal care delivery not a very viable or desirable option. They expressed their concern that a majority of patients might not even have an informal caregiver who would provide care that meets their health needs. Moreover, when care is given by informal care givers, the privacy of patients can be at stake.

If my father poops in his pants, my mother cannot ask the neighbors to help him. What about his privacy? (Nurse)

Nurses

All stakeholders said that nurses are an important link in the healthcare chain. They expressed the conviction that nurses are capable to function as case-managers and to coordinate holistic care for patients in primary as well as secondary health care. This was attributed to the attention to holistic skills in the nurse training. Some remarked that it should be considered whether district nurses can get a good overview of a patient's health during their short visits and whether there might be time and resources to deploy them for coordinating the holistic care.

General Practitioner

The role of the GP was also considered to be very important. The GP was seen as a generalist who has a holistic view of patients. This includes that a GP would not unnecessarily refer patients to a medical specialist. Stakeholders agreed that follow-up consults can often also be done by a GP, which has a proximity advantage for the patient and a cost advantage for

For peer review only

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

the healthcare system. Overall, it was mentioned that a GP can be a good coordinator in a patient's healthcare. However, stakeholders saw the limited amount of time for each patient and the workload as obstacles that prevent GPs from fulfilling a leading or coordinating role.

The need for a currently not existing care management institution

"If patients enter the hospital or an healthcare organization, they do not know where to go, there is so much bureaucracy that they first have to tell their story five times." (Midwife)

The majority of stakeholders mentioned that there is a lack of support for patients to manage their care. Solutions were provided by the stakeholders and were summarized by the researchers: a central institution is needed, where patients can receive services that are similar to the core activities of a church, community center and information desk. This central location or institution needs to function as an accessible place where people can easily gain information and support to manage their healthcare and to be in the lead themselves. Additionally, the need for a central institution is sometimes mentioned in conjunction with 'case-managers'. Case-managers are able to help people find their way.
The dimension 'meaningfulness' in the concept of Huber et al. is thought to be an objective that was traditionally paid attention to by the church or other religious organizations. Nowadays, people have different perspectives about religion and there are fewer possibilities to practice religion as there are less religious institutions.

A new strategy for hospitals to support holistic healthcare delivery

The main key for achieving a holistic approach to healthcare delivery seems to be collaboration between all the providers in the care chain. All healthcare providers within the

For peer review only

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

hospital are complementary to each other, and physicians cannot be expected to consider and balance all the dimensions of holistic healthcare on their own. Continuing the strategy of PIL may be at the expense of the majority of the holistic dimensions of Huber et al. and can be an obstacle in achieving holistic healthcare in VBHC. The majority of stakeholders mentioned that the unit should be leaded by more stakeholders than PIL to ensure holistic healthcare. A new strategy of 'team in the lead' was proposed by the researchers. Per specialization, careful consideration should be given to the composition of the team and all professions should be adequately represented in the team.

"In my opinion, even the Client Board may take part in this." (Midwife)

For peer review only

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

DISCUSSION

We performed a qualitative study and explored stakeholders' perspectives on the strategy 'PIL' in the transition to holistic healthcare. We identified several bottlenecks, solutions and roles in organizing this transition. Features of PIL in the transition were elucidated and did not seem to align with the aim of providing holistic healthcare. A new strategy of 'team in the lead' was proposed. Moreover, participants agreed that a new institution is needed that may provide social and spiritual support as well as the information that patients need in order to manage their own care.

Comparison with the existing literature

The findings concerning the importance of integration of healthcare delivery are in line with the integrated practice units and systems integration as described in VBHC.(12) Other concepts in the literature also support integrated care to improve healthcare delivery for patients.(13;14) Although PIL can contribute in controlling the increasing healthcare costs and improving organizational performance,(15-20) we noticed that PIL do not seem to contribute sufficiently to the interrelations needed between units and thus the integration of units. Nevertheless, collaboration and integration are necessary to provide holistic care and healthcare leaders are needed that go beyond integrated care and actively support people in healing and managing their own health. (21) According to our results, integrated holistic care may be achieved by establishing a team in the lead. To create a patient oriented team, it is needed to transform the relationships among individual providers.(22) The proposed 'team in the lead' in our research can be linked to models about 'shared leadership' in the literature.(23) Shared leadership is management or leadership at a team-level, which empowers staff within the decision-making processes.(23) Effective

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

collaborative relationships and teamwork within shared-leadership are thought to improve integration, care practices and patient outcomes.(23;24)

Besides the need for a team in the lead to improve integration of care and realize a holistic healthcare delivery approach, a central institution seems to be needed in the Netherlands where patients can be supported to be in the lead of their health. This institution needed, corresponds to features of integrated care institutions described in the literature,(22) of which there are physician-led care institutions and non-physician (case-managers, home care agencies, or area agencies) led care institutions. These institutions known from the literature provide similar services to the ones we have described as needed, such as patient information and coordination of care. However, these institutions, that are serving patients who are often medically and socially vulnerable and require a wider range of needs, do not seem to offer direct possibilities to meet the spiritual and social needs of patients. In reality, a care manager in this institution may still refer people who have such needs. Irrespective of the integration model used to integrate care, collaborative and interdependent formal and informal relationships between all the links in the care chain remain necessary for providing holistic care.(22)

Advantages and limitations

To our knowledge, this is the first study to explore the strategy of PIL in the transition to holistic healthcare. Our findings are supported by comparable notions about organizational reforms in healthcare.(25) This study's strength is that it provides the advantages, disadvantages, opportunities for improvement and risks of the strategy PIL, as this resulted in broader insights. As little is known about these aspects of PIL, it was convenient to conduct an exploratory study. The present study is limited by the fact that it was conducted

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

in one country. As the organization of the healthcare system and the strategy of hospitals differ among countries, the content may be less relevant to other settings. In addition, hospital stakeholders are internally oriented, which may have influenced the way they described the organization of holistic care. Although these are aspects that limit the generalizability of our findings, we think that the organization of healthcare systems in the different countries is similar enough to justify the assumption that the findings will have some relevance to other settings. Because our results are based on interviews with stakeholders, they are likely to present a limited picture of the effects of the strategy of PIL on the transition to holistic healthcare.

Suggestions for future research

Although we gained insights into PIL in the transition to holistic healthcare in the Netherlands, it would be interesting to explore the effect of introducing PIL in different cultures. Moreover, observational studies may be useful to determine which issues of PIL in the transition cause the most problems and for which aspects of PIL support is needed to improve this strategy. Furthermore, research on the effectiveness of the proposed concept of a team in the lead would be necessary to explore whether this concept does lead to the desired holistic care in practice.

Implications

It is important for PIL to be aware of the stakeholders' perspectives and of the holistic approach to healthcare delivery. Although physicians can be educated to focus more on the holistic outcome than on cure and treatment, a 'team in the lead' approach should be taken into consideration to achieve holistic healthcare. Organizing holistic care requires more integration and teamwork across facilities in the care chain. Moreover, there is a demand for

For peer review only

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

an institution that coordinates care and supports patients on the different dimensions of holistic care. Better support on these dimensions may lead to more healthy patients in the lead.

For peer review only

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

CONCLUSION

The transition to a value-based and holistic approach is desirable. Although VBHC is an important step in the right direction due to the integrative aspects which it offers, continuing the strategy of PIL may be at the expense of the holistic aims in the healthcare delivery approach. To realize a holistic healthcare approach, a strategy of a 'team in the lead' should be considered, as different professional groups complement each other in the full care cycle. Furthermore, the organization of holistic care lacks support for patients to manage their care. A central institution is required to support patients in realizing the care that is needed to improve their health outcomes. A second important aspect in the organization of holistic care is that every link in the care chain contributes to holistic care delivery, in which collaboration and integration across the care chain is necessary.

For peer review only

ACKNOWLEDGEMENTS We like to thank all the respondents for their sincerity and generosity of sharing their perspectives with us. Also, we would like to thank Nesibe Akdemir (NA), a PhD student in medical education, for her contribution in analyzing the data.

CONTRIBUTORS

RM, CH and FS contributed to the conception and development of the study, project management, reporting and publication. RF, CH and FS developed the topic list for the semi-structured interviews. RM and FS participated in participant recruitment and RM in the data collection. RM performed all interviews. RM, CH, and FS developed and refined the coding framework, and RM and NA performed the data analysis. RM prepared the first draft of the manuscript. RM, CH, and FS were involved in drafting and revising the manuscript and have given final approval of the version to be published. RM takes responsibility for the manuscript.

CONFLICT OF INTEREST STATEMENT All authors have completed the ICMJE uniform disclosure form at http://www.icmje.org/coi_disclosure.pdf and declare: no support from any organisation for the submitted work; no financial relationships with any organisations that might have an interest in the submitted work in the previous three years , no other relationships or activities that could appear to have influenced the submitted work

TRANSPARENCY DECLARATION The lead author affirms that the manuscript is an honest, accurate, and transparent account of the study being reported; that no important aspects of the study have been omitted; and that any discrepancies from the study as planned have been explained.

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

FUNDING: No funding was provided.

DATA SHARING De-identified transcribed interviews and the code set can be made available on request by the corresponding author.

For peer review only

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

REFERENCE LIST

(1) Christensen K, Doblhammer G, Rau R, Vaupel JW. Ageing populations: the challenges ahead. Lancet 2009 Oct 3;374(9696):1196-208.

(2) Wagner EH, Austin BT, Davis C, Hindmarsh M, Schaefer J, Bonomi A. Improving chronic illness care: translating evidence into action. Health Aff (Millwood) 2001 Nov;20(6):64-78.

(3) Barr VJ, Robinson S, Marin-Link B, Underhill L, Dotts A, Ravensdale D, et al. The expanded Chronic Care Model: an integration of concepts and strategies from population health promotion and the Chronic Care Model. Hosp Q 2003;7(1):73-82.

(4) Bodenheimer T, Fernandez A. High and rising health care costs. Part 4: can costs be controlled while preserving quality? Ann Intern Med 2005 Jul 5;143(1):26-31.

(5) Huber M, Knottnerus JA, Green L, van der Horst H, Jadad AR, Kromhout D, et al. How should we define health? BMJ 2011 Jul 26;343:d4163.

(6) Huber M, van VM, Giezenberg M, Winkens B, Heerkens Y, Dagnelie PC, et al. Towards a 'patient-centred' operationalisation of the new dynamic concept of health: a mixed methods study. BMJ Open 2016 Jan 12;6(1):e010091.

(7) Porter ME. What is value in health care? N Engl J Med 2010 Dec 23;363(26):2477-81.

For peer review only

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

(8) Porter ME, Teisberg EO. How physicians can change the future of health care. JAMA 2007 Mar 14;297(10):1103-11.

(9) Lincoln YS, Guba EG. Paradigmatic controversies, contradictions, and emerging confluences. In: Denzin NK, Lincoln YS, editors. The Sage handbook of qualitative research. 3 ed. Thousand Oaks: Sage Publications; 2005. p. 191-215.

(10) Bunniss S, Kelly DR. Research paradigms in medical education research. Med Educ 2010 Apr;44(4):358-66.

(11) Mortelmans D. Manual qualitative research methods (in Dutch: Handboek kwalitatieve onderzoeksmethoden). Leuven; Den Haag: Acco; 2013.

(12) Porter ME, Pabo EA, Lee TH. Redesigning primary care: a strategic vision to improve value by organizing around patients' needs. Health Aff (Millwood) 2013 Mar;32(3):516-25.

(13) Plochg T, Klazinga NS. Community-based integrated care: myth or must? Int J Qual Health Care 2002 Apr;14(2):91-101.

(14) Kodner DL, Spreeuwenberg C. Integrated care: meaning, logic, applications, and implications--a discussion paper. Int J Integr Care 2002;2:e12.

(15) Clark J. Medical leadership and engagement: no longer an optional extra. J Health Organ Manag 2012;26(4-5):437-43.

(16) Daly R. Putting physicians in the lead for cost containment. Healthc Financ Manage 2013 Dec;67(12):52-9.

For peer review only

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

(17) O'Sullivan H, McKimm J. Medical leadership: an international perspective. Br J Hosp Med (Lond) 2011 Nov;72(11):638-41.

(18) Schwartz RW, Tumblin TF. The power of servant leadership to transform health care organizations for the 21st-century economy. Arch Surg 2002 Dec;137(12):1419-27.

(19) Warren OJ, Carnall R. Medical leadership: why it's important, what is required, and how we develop it. Postgrad Med J 2011 Jan;87(1023):27-32.

(20) Yolande W, Gerhard ACS, Pauline LM, Dick LW. Doctor in the lead: balancing between two worlds. Organization 2011;18(4):477-95.

(21) Plochg T, Ilinca S, Noordegraaf M. Beyond integrated care. J Health Serv Res Policy 2017 Jan 1;1355819617697998.

(22) Griffin JD, Andrew F. Integrated care management in rural communities. Portland, ME: University of Southern Maine, Muskie School of Public Service, Maine Rural Health Research Center; 2014. Report No.: Working Paper #54.

(23) Al-Sawai A. Leadership of healthcare professionals: where do we stand? Oman Med J 2013 Jul;28(4):285-7.

(24) Bergman JZ, Rentsch JR, Small EE, Davenport SW, Bergman SM. The shared leadership process in decision-making teams. J Soc Psychol 2012 Jan;152(1):17-42.

(25) Locock L. Healthcare redesign: meaning, origins and application. Qual Saf Health Care 2003 Feb;12(1):53-7.

For peer review only

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

APPENDIX

Exhibit 1: Topic list

Topics	Sub-topics
Change in healthcare delivery approach	- Are you familiar with the changes in healthcare delivery demanded by the Dutch Ministry of Health? - What do you know about the organization of this transition to value-based and holistic healthcare delivery? After introducing these topics, participants received an introduction to the six dimensions of holistic health proposed by Huber et al. and the reorganization of healthcare delivery demanded by the Dutch Ministry of Health. After this introduction, the following questions were asked:
Organization of care	- What are your perspectives on the transition to value-based and holistic healthcare delivery? - How would you like this desired care delivery to be organized? -
Coordination	- Who should take leadership in the organization of this care and in supporting the patient?
Physicians in the lead	- What do you think about physicians in the lead in holistic healthcare? - What are the advantages, disadvantages, opportunities for improvement, and risks in the transition to the desired healthcare approach? - Do you think the strategy of physicians in the lead will lead to holistic healthcare?

For peer review only

For peer review only

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

BMJ Open

Do 'physicians in the lead' support a holistic healthcare delivery approach? A qualitative analysis of stakeholders' perspectives

Journal:	*BMJ Open*
Manuscript ID	bmjopen-2017-020739.R1
Article Type:	Research
Date Submitted by the Author:	05-Feb-2018
Complete List of Authors:	Malik, Romana; OLVG Hospital, Department of Research and Education Hilders , Carina ; Erasmus School of Health Policy & Management Scheele, Fedde; OLVG Hospital , Department of Research and Education ; Athena Institute, Faculty of Earth and Life Sciences, VU University
Primary Subject Heading:	Health policy
Secondary Subject Heading:	Health services research, Health policy, Medical management, Patient-centred medicine, Qualitative research
Keywords:	Medical leadership, Physicians, Holistic care, Value-based healthcare, HEALTH SERVICES ADMINISTRATION & MANAGEMENT, Healthcare delivery

SCHOLARONE™
Manuscripts

For peer review only

TITLE

Do 'physicians in the lead' support a holistic healthcare delivery approach? *A qualitative analysis of stakeholders' perspectives*

AUTHORS

Romana F. Malik (RM) M.D.[1]

Carina G. J. M. Hilders M.D., Ph.D.[2]

Fedde Scheele M.D., Ph.D. [3, 4, 5]

AFFILIATIONS

[1] Department of Research and Education, OLVG Hospital, Jan Tooropstraat 164, 1006AE, Amsterdam, the Netherlands.
Telephone: +31-20 510 8960 @ romana_malik@hotmail.com

[2] Erasmus School of Health Policy & Management, Rotterdam, Burgemeester Oudlaan 50, 3062 PA, the Netherlands. Telephone: +31-10 408 9177 @ C.Hilders@rdgg.nl

[3] Department of Research and Education, OLVG Hospital, Jan Tooropstraat 164, 1006AE, Amsterdam, the Netherlands.
Telephone: +31-20 480 7651 @ f.scheele@olvg.nl

[4] School of Medical Sciences, Institute of education and training, VU University Medical Center, Amsterdam, the Netherlands.

[5] Athena Institute, Faculty of Earth and Life Sciences, VU University, Amsterdam, the Netherlands.

CORRESPONDING AUTHOR Romana F. Malik (MD) OLVG Teaching Hospital, Department of Medical Education, Jan Tooropstraat 164, 1006 AE Amsterdam, the Netherlands Telephone: +31-205108292 @ romana_malik@hotmail.com

For peer review only

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60

24 **WORD COUNT** 4995 words (Main text, excluding abstract, endnotes and exhibits)

25 **STRUCTURED ABSTRACT**

26 **Objectives** Value-based healthcare (VBHC) implies that healthcare issues are addressed most
27 effectively with the 'Physicians in the lead' (PIL) strategy. This study explores whether PIL
28 also supports a holistic care approach that is increasingly being demanded by patients.

29 **Design** A qualitative research design was used.

30 **Setting** This study was conducted in a general hospital in the Netherlands with an integrated
31 PIL strategy.

32 **Participants** Semi-structured interviews were conducted with 14 hospital stakeholders: 13
33 stakeholders of a gynaecology department (the hospital's Patient Council (n=1), nurses
34 (n=2), midwifes (n=2), physicians (n=2), residents (n=2), the non-medical business managers
35 of the unit (n=2) the Board of Directors (n=2)) and a member of the Dutch National Health
36 Care Institute's Innovative Health Care Professions programme.

37 **Results** According to diverse stakeholders, PIL does not support a holistic healthcare delivery
38 approach, mainly because of the strong biomedical focus of physicians. Although physicians
39 can be educated to focus more on the holistic outcome, holistic care delivery requires
40 greater integration and teamwork in the care chain. As different healthcare professions are
41 complementary to each other, a new strategy of a 'team in the lead' was suggested to meet
42 the holistic healthcare demands. Besides this new strategy, there is a need for an extramural
43 care management coordination centre where patients are able to receive support in
44 managing their own care. This centre should also facilitate services similar to the core
45 function of a church or community centre. These services should help patients to deal with
46 different holistic dimensions that are important for their wellbeing.

47 **Conclusions** PIL seems to be insufficient for holistic healthcare delivery. A 'team in the lead'
48 approach should be considered to meet the holistic healthcare demands. Further research
49 should focus on observing PIL in different cultures and exploring the effectiveness of the
50 strategy ' team in the lead'.

51

STRENGTHS AND LIMITATIONS OF THIS STUDY

- To our knowledge, this is the first study to explore the PIL strategy in the transition to holistic healthcare. This qualitative study gives insight in different stakeholders' perspectives. These different perspectives provide a broad understanding to enhance and provide holistic care in the context of the literature on physician leadership.
- The study is limited by the fact that it was conducted in one centre in one country. As the strategy of hospitals differ among countries, the content may be less relevant to settings without a PIL strategy.
- Hospital-based stakeholders are internally oriented, which may have influenced the way they described the organization of holistic care.
- Because our results are based on interviews with stakeholders, they are likely to present a limited picture of the effects of the PIL strategy on the transition to holistic healthcare.

For peer review only

INTRODUCTION

The healthcare system, which is traditionally organized around acute care delivery, seems to be inadequate for managing the changing healthcare demands of the increasing number of chronically ill and ageing patients. (1,2) To comply with these demands and manage the growing impact they have on the national healthcare budgets, a different approach to healthcare delivery is needed. (3-5) A relevant concept that is in line with the changing demands of patients is 'Positive Health' of Huber et al. (6) This holistic concept entails that the care approach to being 'healthy', which is currently mainly focused on biomedical facets such as diseases and their treatments, should also consider other dimensions of patients' lives, such as their psychological, social, and spiritual well-being (meaningfulness), their quality of life and their daily functioning. (6) Integration of these dimensions in the strategic approach of healthcare delivery may contribute to health system innovations.

In the process towards a feasible holistic healthcare delivery approach, several transition designs have been developed, among which Porter's 'Value-Based Healthcare Delivery' (VBHC). (7) VBHC uses a 'Physicians in the lead' (PIL) strategy. This strategy entails that physicians are engaged in organizational processes and that they are responsible for the quality and efficiency of their unit's care delivery. This strategy arises from the belief that physicians have the power to lead the reform of healthcare and to provide care in an effective and efficient way that takes the quality and costs into account. (8) The overarching aim is to create value for patients, where value is defined as the patient health outcomes per dollar spent. (7) This high-value care delivery system should be able to manage the healthcare needs of patients and control the high costs in healthcare.

VBHC comprises six interdependent components: 1. organizing healthcare around patients' medical conditions (a full care cycle) rather than around physicians' medical specialties; 2.

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

measuring costs and outcomes for each patient; 3. developing bundled prices for each care cycle; 4. integrating care across separate facilities; 5. expanding geographic reach; and 6. building an enabling Information Technology platform. VBHC provides many elements that could support the desired health concept of holistic care. These elements, for instance, include a multi-professions approach within a team of medical rehabilitation as part of a full care cycle, which is a way to improve health outcomes. It is based on value for patients from the perception of the patients. Moreover, it prescribes integrated care that exceeds the traditional boundaries of care that is usually provided by a physician.

Although the transition to VBHC in the healthcare delivery approach is already being implemented, it has not been sufficiently substantiated in the literature whether the PIL strategy actually leads to holistic care. Although Porter does provide an approach to the full cycle of care and to health outcomes, implementation studies (9-11) do not study such holistic features of health proposed by Huber et al. (6) Moreover, Huber showed that there is a large discrepancy between the perspectives of patients and healthcare professionals concerning the relative importance of the various dimensions. (6) Whereas patients and nurses find all six dimensions almost equally important, physicians indicate dimensions other than bodily functions as less important. (6) As patients seem to have a broader view on their health than physicians do and physicians do not seem to sufficiently recognize the holistic nature of patient needs, the question arises whether PIL are capable of introducing holistic care.

The aim of this research was to elicit various stakeholders' perspectives on the PIL strategy in the transition to holistic healthcare and to establish views on the advantages, barriers,

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

opportunities for improvement, and development of barriers of the PIL strategy in this transition. The research questions were:

- *What are the stakeholders' perspectives on the PIL strategy?*
- *What are the stakeholder's perspectives on holistic care?*
- *How do the stakeholders' perspectives on the PIL strategy relate to their perspectives on holistic health care delivery?*

For peer review only

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

139 **METHODS**

140 *Setting*

141 This study was conducted in a general hospital in the Netherlands at a gynaecology
142 department that was halfway through the process of implementing VBHC and integrated a
143 PIL strategy. In this context all physicians in a unit share responsibility regarding the quality
144 and efficiency of healthcare delivery, with one physician in the lead in every unit. This
145 physician in the lead receives support from an operational manager and a business
146 administration manager, but remains ultimately accountable to the Board of Directors
147 concerning the organizational processes, the performance, and the quality of healthcare
148 delivery of the unit. The Board of Directors in their turn supports PIL by facilitating
149 leadership and management courses and monitors the results as well as the compliance of
150 the unit with the interests of the hospital. Besides leadership and managerial tasks, the
151 physician in the lead is required to remain a clinician.

152 *Study design*

153 An interpretative and descriptive, qualitative design was used. (12,13) Knowledge was
154 gained from an accurate and deep understanding of the stakeholders' perspectives from
155 their individually perceived experiences. The use of open questions during the interviews
156 allowed the respondents to talk in depth, choosing their own words. Also, it gave the
157 interviewer the opportunity to probe for a deeper understanding, ask for clarification &
158 allow the interviewee to steer the direction of the interview. In this way the interviewer
159 could develop a real sense of the stakeholders' understanding of the situation, their
160 experience and the associated perspectives.

For peer review only

Participants and procedure

We have used the method purposeful sampling to select stakeholders. (12,13) Stakeholders were explicitly selected that were likely to generate appropriate and useful data. In this study the participants were selected by a hospital administrator. The selection criteria were the following: two stakeholders of each relevant stakeholder group that were identifiable as representative for the group, were actively involved in policy discussions, and were actively contributing to policy making concerning the hospital's future regarding healthcare delivery. Between April and June 2016, a physician (RM) conducted semi-structured face-to-face, in-depth interviews with members of all stakeholder groups of a gynaecology department; the hospital's Patient Council (n=1), nurses (n=2), midwifes (n=2), physicians (n=2), residents (n=2), the non-medical business managers of the unit (n=2), and the Board of Directors (n=2). In addition, a representative of the Dutch National Health Care Institute's Innovative Health Care Professions programme was interviewed (the advisory board for the Dutch Ministry of Health on innovations and improvements in health care professions and education) (n=1). From the 14 participants, 12 were female and two were male. One of the two male participants was a representative of the Board of Directors and the other a representative of the non-medical business managers of the unit. The gender and ethnicity distribution was representative for each stakeholder group. All 14 stakeholders were approached for inclusion by e-mail invitations, and all agreed to participate (the secretary of the hospital's Patient Council was approached for recruiting two representatives, however, one delegate was sent to represent patients). The number of participants was predetermined to obtain broad stakeholder perspective and data saturation was reached with the initial cohort. This saturation was evaluated by the amount of new data that was

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

generated by each transcript. The Ethical Review Board of the hospital waived the requirement for ethics approval for this study. All participants provided written informed consent for audio-recording the interview and publishing the data.

Data collection

Keywords and phrases such as “Physicians in the lead”, “medical leadership”, “value-based healthcare”, “holistic care”, “healthcare transition”, “healthcare delivery” were used in the PubMed, CINAHL, PsycINFO and Google Scholar search engines to find relevant literature in order to theoretically frame the transition to value-based and holistic healthcare delivery and PIL. A tailored topic list was drafted from theoretical concepts to structure the interviews and to organize the data collection (Appendix 1). In view of the exploratory goal of the study, questions were mainly open. Each interview lasted a minimum of 30 minutes and a maximum of 60 minutes with a median of 40 minutes.

Data Analysis

The interviews were transcribed verbatim. (12,13) The transcripts were anonymised for anyone other than the interviewer (RM) and were analysed by two researchers using content analysis. (12,13) A qualitative data analysis software program (MAX.QDA 2007) was used for coding the narratives. Data were categorized with open and axial coding. During the first step of open coding, sentences of the transcripts were coded with a label that summarized the meaning of that sentence. This resulted in a large number of labels. Subsequent axial coding reduced the number of labels by clustering the content of closely related individual labels into categories. Thirty-nine categories remained after axial coding.

This process was guided by the concept of Huber et al.(6) and the research questions. In the

For peer review only

final step of selective coding, connections were made between the categories that were identified in the axial coding process. This coding was an iterative process, in which the research team repeatedly discussed until consensus was reached about the key themes.

For peer review only

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

231 **RESULTS**

232 Three key themes were derived from the analysis of the stakeholders' perspectives: the PIL
233 strategy in the transition to holistic healthcare delivery, the requirements to meet holistic
234 care, and a new strategy for hospitals to achieve holistic healthcare delivery. All data
235 presented in the results are based on the stakeholders' perspectives, unless it is specifically
236 mentioned that it is not.

237 **PIL in the transition to holistic healthcare delivery**

238 All stakeholders mentioned that a transition to holistic healthcare delivery seems to be
239 inevitable and a very desirable development. But the researchers questioned themselves the
240 following: *is introducing 'PIL' the same as introducing holistic care in the hospital?*

241 **Facilitators to holistic care through PIL**

242 All stakeholders agreed that the main advantages of PIL are related to the dimensions
243 'bodily functions' and 'daily functioning' of Huber et al.(6) The physicians themselves say
244 that they are able to look at a patient with a holistic view. The extent to which the physician
245 has a holistic view however, depends on the physician's specialty. Besides specialty, the
246 physician's experience can have a beneficial influence on the physician's capacity to provide
247 holistic care.

248 *"Geriatricians and oncologists will look not only at the bodily functions but will have a*
249 *broader view of components that add value for patients." (Resident)*

250 The physicians can lead the practice, as they have knowledge about the physical needs of
251 patients, the treatments available for diseases, resources that are needed for patient care,
252 and developments in medical care. Physicians have a certain influence within a team, which

For peer review only

can help in transferring a holistic vision to the rest of the team.

"If I want something from the Board of Directors, I have to pass several levels, and in the end, I will still not succeed to reach them. If a physician approaches the Board of Directors, they get through immediately". (Manager)

Barriers to holistic care through PIL

The first barrier of PIL for providing holistic healthcare is time. The short time frame physicians have for each patient does not make it possible to deliver holistic care.

"A physician has ten minutes for each patient, they do not have time to check whether patients are healthy on all these dimensions. Moreover, I do not see any physician doing this." (Nurse)

A second barrier is that physicians have a narrowed view due to their strong biomedical focus according to all stakeholders, except for the physicians themselves and the Board of Directors. This focus is often at the expense of other dimensions; for instance, this view rarely includes meaningfulness as part of the spiritual dimension. This narrowed view may result in more focus on diagnostics and interventions than desirable.

"Our profession is based on seeing clients from a healthy perspective. As soon as a gynaecologist is consulted for advice concerning a pregnant woman, you may assume that their care delivery approach is focused on disease. Then it is often just a matter of wait and see until they start their interventions, which are in my opinion not always necessary." (Midwife)

A third barrier concerns the physician's engagement in management and leadership tasks. Physician priority is to be a clinician rather than a manager and leader. The management

For peer review only

1
2
3 275 course that is provided in the hospital is considered insufficient, as managers usually study
4
5 276 management for years. The time PIL get to run a unit is also insufficient, as they still provide
6
7 277 care and managing a unit is a complex and full-time task. Although many PIL manage to take
8
9 278 care of their own unit, they seem to lose sight of the bigger picture and do not act in
10
11 279 collaboration with other units and the hospital's interests.
12
13
14 280 *"Physicians in the lead manage to take care of their own unit and their interests, but do not*
15
16 281 *always manage to collaborate with other units and act towards the hospital's interests."*
17
18 282 *(Board of Directors)*
19
20
21 283 **Opportunities for improvement**
22
23 284 The main opportunity for improvement is educating physicians in the delivery of holistic
24
25 285 healthcare, but also in management and leadership. A second opportunity for improvement
26
27 286 is enhanced collaboration with other professions, such as nursing. Awareness and
28
29 287 contribution of other professionals is important, as is awareness of the way in which they
30
31 288 are complementary to each other.
32
33
34 289 *"We work with nurses every day, but we do not know anything about the content of their*
35
36 290 *education and what exactly they are competent and authorized to do."(Resident)*
37
38
39 291 For the current PIL, a broader view based on collaboration, interrelations between units and
40
41 292 responsibility for hospital interest in addition to the unit's interests can be developed
42
43 293 through educational programs. Furthermore, not every physician is able to be a leader or
44
45 294 manager and perhaps should focus mainly on patient care, while others should focus more
46
47 295 on leadership and management tasks in addition to patient care.
48
49
50
51
52
53
54
55
56
57
58
59
60

For peer review only

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

296 **Development of the barriers**

297 Threats to the enhancement of holistic care are mostly related to the consequences of the
298 barriers or to failure to implement the opportunities for improvement. One of the risks is
299 that holistic healthcare is not achieved because of the strong biomedical focus. Another risk
300 is raised when self-interest of the unit is prominent, rather than the interrelations with units.
301 This has the potential consequence that the hospital may not provide a full cycle of care for
302 patients. Furthermore, a hierarchic structure, where only the physician is in the lead, can
303 cause insufficient representation of the perspectives of other professions. For other
304 professions, it may be very hard to make a change:

305 *“With this strategy there is one doctor at the top, if the doctor has a different view than the*
306 *rest of the team, it is a burden for the team.” (Midwife)*

307 **Requirements to meet holistic care**

308 From the stakeholders’ perspectives, it became clear that the PIL strategy is insufficient to
309 meet the holistic requirements proposed by Huber et al.(6) However, all the participants
310 confirmed that all six dimensions should be considered as important healthcare outcomes.
311 As patients’ health outcomes are not yet systematically measured, there is a lack of clarity
312 about who should be the one to take the lead in detecting the needs of patients and
313 arranging the process needed to improve their health status. All stakeholder groups
314 mentioned that the care is supposed to be value-based and holistic, but that this is often not
315 yet the case in practice.

316 *”The reality is always more persistent than the ideas that are being launched. Things always*
317 *turn out differently than the perspectives that are outlined. As a patient, you are subject to*
318 *this.“ (Patient Council)*

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

The system still need to re-organize and adapt further to meet the requirements for holistic care.

The care chain

In order to provide holistic care, it is essential that the healthcare providers have a shared vision. From the perspectives of several stakeholders, patients should be supported outside the hospital in order to achieve holistic healthcare. A holistic approach should be the core of care delivery in every link of the care chain; therefore, hospital based professionals should consider the six dimensions essential for patients to improve their health. Referrals and collaboration between a variety of disciplines and professions in and outside the hospital is needed for holistic care delivery.

Roles in the organization of holistic healthcare

From the stakeholders' perspectives, five important roles were defined besides PIL in organizing holistic care:

Patients

All stakeholders agreed with the need for empowering patients. The structure of 'patients in the lead' was mentioned several times. Patients in the lead were thought to be able to take responsibility for their own health and to manage their care in a holistic way as far as possible. Illness and age were mentioned as possible reasons why patients may not be able to take responsibility for their own health.

"In current society, people were not raised with the mentality to take responsibility for their own health and manage their own care. It will take a generation to achieve this." (Doctor)

For peer review only

Support is thus needed to guide and help patients in coordinating and managing their own healthcare. Patients who are still not capable to manage their care, despite receiving support, are dependent on safety nets. At this point, the question emerged regarding who should help the patient by fulfilling a coordinating role if these limits are reached and who should take the lead in coordinating the healthcare of these patients.

Informal caregivers

A marked difference emerged in the perspectives of the various stakeholders on the role of informal caregivers. The representative of the Innovative Health Care Professions programme and the representatives of the Board of Directors on one hand, were confident that informal caregivers can provide a large part of the care that is needed. Several other stakeholders mentioned that society is increasingly individualistic, which makes informal care delivery not a very viable or desirable option. They expressed their concern that a majority of patients might not even have an informal caregiver who would provide care that meets their health needs. Moreover, when care is provided by informal care givers, the privacy of patients can be at stake.

If my father poops in his pants, my mother cannot ask the neighbours to help him. What about his privacy? (Nurse)

Nurses

All stakeholders said that nurses are an important link in the healthcare chain. They expressed the conviction that nurses are capable to function as case-managers and to coordinate holistic care for patients in primary as well as secondary health care. This belief was attributed to the attention to holistic skills in the nurse training. Some remarked that it should be considered whether district nurses can get a good overview of a patient's health

For peer review only

during their short visits and whether there might be time and resources to deploy them for coordinating the holistic care.

General Practitioner

The role of the GP was also considered to be very important. The GP was seen as a generalist who has a holistic view of patients and would not unnecessarily refer patients to a medical specialist. Stakeholders agreed that follow-up can often be done by a GP, which has a proximity advantage for the patient and a cost advantage for the healthcare system. Overall, while the GP can be a good coordinator in a patient's healthcare, the limited amount of time for each patient and workload are obstacles to GPs fulfilling a leading or coordinating role.

The need for a new care management coordination centre

"If patients enter the hospital or a healthcare organization, they do not know where to go, there is so much bureaucracy that they first have to tell their story five times." (Midwife)

The majority of stakeholders mentioned that there is a lack of support for patients to manage their care and solutions suggested include a new care management coordination centre, where patients can receive services that are similar to the core activities of a church, community centre and information desk. This centre needs to function as an accessible place where people can easily gain information and support to manage their healthcare and function as patients in the lead. Additionally, the need for such a centre is sometimes mentioned in conjunction with 'case-managers'. Case-managers are able to help people navigate their way. Hubers et al's dimension 'meaningfulness',(6) is assumed to be an objective that was traditionally paid attention to by the church or other religious

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

organizations. As people have different perspectives about religion, this new centre could pay attention to the dimension 'meaningfulness'.

"Formerly, a lot of people went to the church, now this is much less the case. People are searching for alternatives for meaningfulness and mindfulness." (Physician)

A new strategy for hospitals to support holistic healthcare delivery

The main key for achieving a holistic approach to healthcare delivery seems to be collaboration between all the providers in the care chain. All healthcare providers within the hospital are complementary to each other, and physicians cannot be expected to consider and balance all the dimensions of holistic healthcare on their own. Continuing the PIL strategy may be at the expense of the majority of the holistic dimensions of Huber et al.(6) and can be an obstacle in achieving holistic healthcare in VBHC. The majority of stakeholders mentioned that the unit should be led by more stakeholders in addition to PIL to ensure holistic healthcare. A new strategy of 'team in the lead' was proposed by the researchers. Per medical specialty, careful consideration should be given to the composition of the team and all professions should be adequately represented in the team.

"In my opinion, even the Patient Council may take part in this." (Midwife)

For peer review only

DISCUSSION

We performed a qualitative study and explored stakeholders' perspectives on the PIL strategy in the transition to holistic healthcare. We identified several bottlenecks, solutions and roles in organizing this transition. Features of PIL in the transition were elucidated and did not seem to align with the aim of providing holistic healthcare. A new strategy of 'team in the lead' was proposed. Moreover, participants agreed that a new care management coordination centre is needed that may provide social and spiritual support as well as the information that patients need in order to manage their own care.

Comparison with the existing literature

The findings concerning the importance of integration of healthcare delivery are in line with the integrated practice units and systems integration as described in VBHC. (11) Other concepts in the literature also support integrated care to improve healthcare delivery for patients. (14,15) Although PIL can contribute in controlling the increasing healthcare costs and improving organizational performance, (16-21) we noticed that PIL in our study do not seem to contribute sufficiently to the interrelations needed between units and thus the integration of units. Collaboration and integration are necessary to provide holistic care and healthcare leaders are needed that go beyond integrated care and actively support people in all dimensions for optimized healing and managing their own health. (22) Based on our results, we postulate that holistic care may be achieved by establishing a team in the lead. To create a patient oriented team, it is needed to transform the relationships among individual providers. (23) The proposed 'team in the lead' in our research can be linked to models about 'shared leadership' in the literature. (24) Shared leadership is management or leadership at a team-level, which empowers staff within the decision-making processes. (24)

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

Effective collaborative relationships and teamwork within shared-leadership are thought to improve integration, care practices and patient outcomes. (24,25) Moreover, an effective and efficient team in the lead requires collective competences. Lingard describes the necessity of team competence in medicine. (26) She mentions that individual competence alone, which is the focus in medicine, is insufficient for the quality of healthcare delivery and holds us back from meaningful change in how we educate for, and practice as, health care teams. Competent individuals can form incompetent teams. The competence of leadership is increasingly important in competency frameworks for professionals, but it is in complex relation to team collaboration. (26) Lingard claims that we risk perpetuating the myth that "strong leadership" is the panacea for what ails teamwork but that what "strong leadership" entails will vary according to clinical context. The nature of leadership in acute care delivery such as in surgical, resuscitation, and trauma teams may be different from the leadership that is needed in teams that provide chronic and complex care.

Besides the concept of a team in the lead to improve integration of care and realize a holistic healthcare delivery approach, the concept of a care management coordination centre seems to be required to support patients to be in the ultimate 'lead' of their health. This centre corresponds to features of integrated care centres described in the literature, (23) of which there are physician-led care centres and non-physician (case-managers, home care agencies, or area agencies) led care centres. Such centres provide some of the similar services to the ones we have described as needed, such as patient information and coordination of care. However, these centres, that are serving patients who are often medically and socially vulnerable and require a wider range of needs, do not seem to offer direct possibilities to meet the spiritual and social needs of patients. In reality, a care manager in such centres may still refer people who have such needs. Irrespective of the model used to integrate care,

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

1
2
3 452 collaborative and interdependent formal and informal relationships between all the links in
4
5 453 the care chain remain necessary for providing holistic care. (23)
6
7 454 *Advantages and limitations*
8
9
10
11 455 To our knowledge, this is the first study to explore the PIL strategy in the transition to
12
13 456 holistic healthcare. Our findings are supported by comparable notions about organizational
14
15 457 reforms in healthcare. (27) This study's strength is that it provides the advantages, barriers,
16
17 458 opportunities for improvement and development of barriers of the strategy PIL, therefore
18
19 459 giving broader insights and exploration. To achieve reliability, we made use of accurately
20
21
22 460 transcribed recordings, instead of making use of handwritten notes. (12,13) The data was
23
24 461 transcribed by the researcher that conducted the interviews for accuracy and to get familiar
25
26
27 462 with the data. To ensure reliable data analysis, two researchers were involved in labelling
28
29 463 the codes. The themes were discussed within the research team until consensus was
30
31 464 reached. To create an opportunity for other researchers to repeat this study, all the steps
32
33 465 are described in the methods as detailed as possible. To ensure credibility, the respondents
34
35
36 466 were chosen from a range that they were identifiable as representative for the group.
37
38 467 (12,13) Moreover, quotes from the transcripts were tied to the text so the reader can see
39
40 468 how the interpretation is based on the data. To ensure alignment between the shared
41
42
43 469 information and the interpretation of the interviewer, the interviewer (RM) explored the
44
45 470 hospital's strategy documents, in order to be aware of and understand the hospital's
46
47 471 processes. In this way the information shared could be better understood and interpret.
48
49
50 472 Questions were mainly open-ended to encourage information sharing. Answers were now
51
52 473 and then paraphrased and summarized to give the respondent the opportunity to add
53
54 474 important perspectives, to confirm the interpretations and to clear misunderstandings of the
55
56
57
58
59

For peer review only

interviewer. Information about anonymity was given prior to the interview. This was expected to not withhold the participants from speaking freely.

The present study is limited by the fact that it was conducted in one country. As the organization of the healthcare system and the strategy of hospitals differ among countries, the content may be less relevant to other settings. Also, our results are based on interviews with stakeholders, they are likely to present a limited picture of the effects of the PIL strategy on the transition to holistic healthcare. In addition, hospital stakeholders are internally oriented, which may have influenced the way they described the organization of holistic care. Although these are aspects that limit the transferability of our findings, we think that the concepts used in this study are internationally recognized and the organization of healthcare systems in different countries is similar enough to justify the assumption that our findings will have some relevance and are transferable to other contexts and settings.

Suggestions for future research

Although we gained insights into PIL in the transition to holistic healthcare in the Netherlands, it would be interesting to explore the effect of introducing PIL in different cultures. Moreover, observational studies may be useful to determine which issues of PIL in the transition cause the most problems in order to improve this strategy. Furthermore, research on the effectiveness of the proposed concept of a team in the lead would be necessary to explore whether this model is effective and would lead to the desired holistic care in practice.

Implications

It is important for PIL to be aware of the stakeholders' perspectives and of the holistic approach to healthcare delivery. Although physicians can be educated to focus more on the

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

holistic outcome than on cure and treatment, a 'team in the lead' approach should be taken into consideration to achieve holistic healthcare. Organizing holistic care requires more integration and teamwork across facilities in the care chain. Moreover, there is a demand for a care management coordination centre that coordinates care and supports patients on the different dimensions of holistic care. Better support on these dimensions may lead to more healthy patients in the lead.

For peer review only

CONCLUSION

The transition to a value-based and holistic approach in healthcare is desirable. Although VBHC is an important step in the right direction due to the integrative aspects it offers, the PIL strategy may be at the expense of the holistic aims in the healthcare delivery approach. To realize a holistic healthcare approach, a strategy of a 'team in the lead' should be considered, as different professional groups complement each other in the full care cycle.

Furthermore, the current organization of holistic care lacks support for patients to manage their care. A care management coordination centre is required to support patients in realizing the care that is needed to improve their health outcomes. A second important aspect in the organization of holistic care is that every link in the care chain contributes to holistic care delivery, therefore collaboration and integration across the care chain is necessary.

For peer review only

538 **ACKNOWLEDGEMENTS** We like to thank all the respondents for their sincerity and
539 generosity of sharing their perspectives with us. Also, we would like to thank Nesibe
540 Akdemir (NA), a PhD student in medical education, for her contribution in analysing the
541 data.

542 **CONTRIBUTORS**

543 RM, CH and FS contributed to the conception and development of the study, project
544 management, reporting and publication. RF, CH and FS developed the topic list for the semi-
545 structured interviews. RM and FS participated in participant recruitment and RM in the data
546 collection. RM performed all interviews. RM, CH, and FS developed and refined the coding
547 framework, and RM and NA performed the data analysis. RM prepared the first draft of the
548 manuscript. RM, CH, and FS were involved in drafting and revising the manuscript and have
549 given final approval of the version to be published. RM takes responsibility for the
550 manuscript.

551 **CONFLICT OF INTEREST STATEMENT** All authors have completed the ICMJE uniform
552 disclosure form at http://www.icmje.org/coi_disclosure.pdf and declare: no support from
553 any organisation for the submitted work; no financial relationships with any organisations
554 that might have an interest in the submitted work in the previous three years, no other
555 relationships or activities that could appear to have influenced the submitted work

556 **TRANSPARENCY DECLARATION** The lead author affirms that the manuscript is an honest,
557 accurate, and transparent account of the study being reported; that no important aspects of
558 the study have been omitted; and that any discrepancies from the study as planned have
559 been explained.

For peer review only

FUNDING: No funding was provided.

DATA SHARING De-identified transcribed interviews and the code set can be made available by request to the corresponding author.

For peer review only

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60

583 **REFERENCE LIST**

584

585 (1) Christensen K, Doblhammer G, Rau R, Vaupel JW. Ageing populations: the challenges
586 ahead. Lancet 2009 Oct 3;374(9696):1196-208.

587 (2) Wagner EH, Austin BT, Davis C, Hindmarsh M, Schaefer J, Bonomi A. Improving
588 chronic illness care: translating evidence into action. Health Aff (Millwood) 2001
589 Nov;20(6):64-78.

590 (3) Barr VJ, Robinson S, Marin-Link B, Underhill L, Dotts A, Ravensdale D, et al. The
591 expanded Chronic Care Model: an integration of concepts and strategies from
592 population health promotion and the Chronic Care Model. Hosp Q 2003;7(1):73-82.

593 (4) Bodenheimer T, Fernandez A. High and rising health care costs. Part 4: can costs be
594 controlled while preserving quality? Ann Intern Med 2005 Jul 5;143(1):26-31.

595 (5) Huber M, Knottnerus JA, Green L, van der Horst H, Jadad AR, Kromhout D, et al. How
596 should we define health? BMJ 2011 Jul 26;343:d4163.

597 (6) Huber M, van VM, Giezenberg M, Winkens B, Heerkens Y, Dagnelie PC, et al. Towards
598 a 'patient-centred' operationalisation of the new dynamic concept of health: a mixed
599 methods study. BMJ Open 2016 Jan 12;6(1):e010091.

600 (7) Porter ME. What is value in health care? N Engl J Med 2010 Dec 23;363(26):2477-81.

601 (8) Porter ME, Teisberg EO. How physicians can change the future of health care. JAMA
602 2007 Mar 14;297(10):1103-11.

603 (9) Lee VS, Kawamoto K, Hess R, Park C, Young J, Hunter C, et al. Implementation of a
604 Value-Driven Outcomes Program to Identify High Variability in Clinical Costs and
605 Outcomes and Association With Reduced Cost and Improved Quality. JAMA
606 2016;316(10):1061-72.

607 (10) Nilsson K, Bssthe F, Andersson AE, Wikstr÷m E, Sandoff M. Experiences from
608 implementing value-based healthcare at a Swedish University Hospital a longitudinal
609 interview study. BMC Health Serv Res BMC Health Services Research 2017;17(1).

610 (11) Porter ME, Pabo EA, Lee TH. Redesigning primary care: a strategic vision to improve
611 value by organizing around patients' needs. Health Aff (Millwood) 2013
612 Mar;32(3):516-25.

613 (12) Green J, Thorogood N. Qualitative methods for health research. Los Angeles: SAGE;
614 2009.

615 (13) Mortelmans D. Manual qualitative research methods (in Dutch: Handboek
616 kwalitatieve onderzoeksmethoden). Leuven; Den Haag: Acco; 2013.

(14) Plochg T, Klazinga NS. Community-based integrated care: myth or must? Int J Qual Health Care 2002 Apr;14(2):91-101.

(15) Kodner DL, Spreeuwenberg C. Integrated care: meaning, logic, applications, and implications--a discussion paper. Int J Integr Care 2002;2:e12.

(16) Clark J. Medical leadership and engagement: no longer an optional extra. J Health Organ Manag 2012;26(4-5):437-43.

(17) Daly R. Putting physicians in the lead for cost containment. Healthc Financ Manage 2013 Dec;67(12):52-9.

(18) O'Sullivan H, McKimm J. Medical leadership: an international perspective. Br J Hosp Med (Lond) 2011 Nov;72(11):638-41.

(19) Schwartz RW, Tumblin TF. The power of servant leadership to transform health care organizations for the 21st-century economy. Arch Surg 2002 Dec;137(12):1419-27.

(20) Warren OJ, Carnall R. Medical leadership: why it's important, what is required, and how we develop it. Postgrad Med J 2011 Jan;87(1023):27-32.

(21) Yolande W, Gerhard ACS, Pauline LM, Dick LW. Doctor in the lead: balancing between two worlds. Organization 2011;18(4):477-95.

(22) Plochg T, Ilinca S, Noordegraaf M. Beyond integrated care. J Health Serv Res Policy 2017 Jan 1;1355819617697998.

(23) Griffin JD, Andrew F. Integrated care management in rural communities. Portland, ME: University of Southern Maine, Muskie School of Public Service, Maine Rural Health Research Center; 2014. Report No.: Working Paper #54.

(24) Al-Sawai A. Leadership of healthcare professionals: where do we stand? Oman Med J 2013 Jul;28(4):285-7.

(25) Bergman JZ, Rentsch JR, Small EE, Davenport SW, Bergman SM. The shared leadership process in decision-making teams. J Soc Psychol 2012 Jan;152(1):17-42.

(26) Lingard L. Paradoxical Truths and Persistent Myths: Reframing the Team Competence Conversation. Journal of Continuing Education in the Health Professions 2016;36 Suppl 1:S19-S21.

(27) Locock L. Healthcare redesign: meaning, origins and application. Qual Saf Health Care 2003 Feb;12(1):53-7.

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

APPENDIX

Appendix 1: Topic list

Topics	Sub-topics
Change in healthcare delivery approach	- Are you familiar with the changes in healthcare delivery demanded by the Dutch Ministry of Health? - What do you know about the organization of this transition to value-based and holistic healthcare delivery? After introducing these topics, participants received an introduction to the six dimensions of holistic health proposed by Huber et al.(6) and the reorganization of healthcare delivery demanded by the Dutch Ministry of Health. After this introduction, the following questions were asked:
Organization of care	- What are your perspectives on the transition to value-based and holistic healthcare delivery? - How would you like this desired care delivery to be organized?
Coordination	- Who should take leadership in the organization of this care and in supporting the patient?
Physicians in the lead	- What do you think about physicians in the lead in holistic healthcare? - What are the advantages, barriers, opportunities for improvement, and risks in the transition to the desired healthcare approach? - Do you think the strategy of physicians in the lead will lead to holistic healthcare?

For peer review only

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

Index of items reported in our research in accordance with the Standards for Reporting Qualitative Research (SRQR)*

1.	Title	p. 1
2.	Structured abstract	p. 2
3.	Problem formulation	p. 4
4.	Purpose or research question	p. 6
5.	Qualitative approach and research paradigm	p. 7
6.	Researcher characteristics, reflexivity	p. 8
7.	Context	p. 7
8.	Sampling strategy	p. 8
9.	Ethical issues pertaining to human subjects	p. 9
10.	Data collection methods	p. 9
11.	Data collection instruments/ technologies	p. 9
12.	Units of study	p. 8
13.	Data processing	p. 9
14.	Data analysis	p. 9
15.	Techniques to enhance trustworthiness	p. 21
16.	Synthesis and interpretation	p. 11-18
17.	Links to empirical data	p. 11-18
18.	Integration with prior work, implications, transferability, and contribution(s)	p. 22, 23 and 25
19.	Limitations	p. 3 and 22
20.	Conflicts of interest	p. 25
21.	Funding	p. 26

* Standards by Bridget C. O'Brien, PhD, Ilene B. Harris, PhD, Thomas J. Beckman, MD, Darcy A. Reed, MD, MPH, and David A. Cook, MD, MHPE

For peer review only

BMJ Open

Do 'physicians in the lead' support a holistic healthcare delivery approach? A qualitative analysis of stakeholders' perspectives

Journal:	*BMJ Open*
Manuscript ID	bmjopen-2017-020739.R2
Article Type:	Research
Date Submitted by the Author:	04-Apr-2018
Complete List of Authors:	Malik, Romana; OLVG Hospital, Department of Research and Education Hilders , Carina ; Erasmus School of Health Policy & Management Scheele, Fedde; OLVG Hospital , Department of Research and Education ; Athena Institute, Faculty of Earth and Life Sciences, VU University
Primary Subject Heading:	Health policy
Secondary Subject Heading:	Health services research, Health policy, Medical management, Patient-centred medicine, Qualitative research
Keywords:	Medical leadership, Physicians, Holistic care, Value-based healthcare, HEALTH SERVICES ADMINISTRATION & MANAGEMENT, Healthcare delivery

SCHOLARONE™
Manuscripts

For peer review only

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

TITLE

Do 'physicians in the lead' support a holistic healthcare delivery approach? *A qualitative analysis of stakeholders' perspectives*

AUTHORS

Romana F. Malik (RM) M.D.[1]

Carina G. J. M. Hilders M.D., Ph.D.[2]

Fedde Scheele M.D., Ph.D. [3, 4, 5]

AFFILIATIONS

[1] Department of Research and Education, OLVG Hospital, Jan Tooropstraat 164, 1006AE, Amsterdam, the Netherlands.
Telephone: +31-20 510 8960 @ romana_malik@hotmail.com

[2] Erasmus School of Health Policy & Management, Rotterdam, Burgemeester Oudlaan 50, 3062 PA, the Netherlands. Telephone: +31-10 408 9177 @ C.Hilders@rdgg.nl

[3] Department of Research and Education, OLVG Hospital, Jan Tooropstraat 164, 1006AE, Amsterdam, the Netherlands.
Telephone: +31-20 480 7651 @ f.scheele@olvg.nl

[4] School of Medical Sciences, Institute of education and training, VU University Medical Center, Amsterdam, the Netherlands.

[5] Athena Institute, Faculty of Earth and Life Sciences, VU University, Amsterdam, the Netherlands.

CORRESPONDING AUTHOR Romana F. Malik (MD) OLVG Teaching Hospital, Department of Medical Education, Jan Tooropstraat 164, 1006 AE Amsterdam, the Netherlands Telephone: +31-205108292 @ romana_malik@hotmail.com

For peer review only

WORD COUNT 4801 words (Main text, excluding abstract, endnotes and exhibits)

STRUCTURED ABSTRACT

Objectives Value-based healthcare (VBHC) implies that healthcare issues are addressed most effectively with the 'physicians in the lead' (PIL) strategy. This study explores whether PIL also supports a holistic care approach that patients are increasingly demanding.

Design A qualitative research design was used.

Setting This study was conducted in a general hospital in the Netherlands with an integrated PIL strategy.

Participants Semi-structured interviews were conducted with 14 hospital stakeholders: 13 stakeholders of a Obstetrics and Gynaecology department (the hospital's Patient Council (n=1), nurses (n=2), midwives (n=2), physicians (n=2), residents (n=2), the non-medical business managers of the Obstetrics and Gynaecology department (n=2) the Board of Directors (n=2)) and a member of the Dutch National Healthcare Institute's Innovative Healthcare Professions programme.

Results According to diverse stakeholders, PIL does not support a holistic healthcare delivery approach, primarily because of the strong biomedical focus of physicians. Although physicians can be educated to place more emphasis on the holistic outcome, holistic care delivery requires greater integration and teamwork in the care chain. As different healthcare professions are complementary to each other, a new strategy of a 'team in the lead' was suggested to meet the holistic healthcare demands. Besides this new strategy, there is a need for an extramural care management coordination centre where patients are able to receive support in managing their own care. This centre should also facilitate services similar to the core function of a church or community centre. These services should help patients to deal with different holistic dimensions that are important for their wellbeing.

Conclusions The PIL strategy appears to be insufficient for holistic healthcare delivery. A 'team in the lead' approach should be considered to meet the holistic healthcare demands. Further research should focus on observing PIL in different cultures and exploring the effectiveness of the strategy 'team in the lead'.

STRENGTHS AND LIMITATIONS OF THIS STUDY

- To our knowledge, this is the first study to explore the PIL strategy in the transition to holistic healthcare. This qualitative study offers insights in different stakeholders' perspectives. These provide broad understanding on how to enhance and provide holistic care in the context of physician leadership.
- The study is limited by the fact that it was conducted in one centre in one country. As the strategy of hospitals differ among countries, the content may be less relevant to settings without a PIL strategy.
- Hospital-based stakeholders are internally oriented, which may have influenced the way they described the organization of holistic care.
- Because our results are based on interviews with stakeholders, they are likely to present a limited picture of the effects of the PIL strategy on the transition to holistic healthcare.

For peer review only

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

73 **INTRODUCTION**

74 The healthcare system, which is traditionally organized around acute care delivery, seems to
75 be inadequate for managing the changing healthcare demands of the increasing number of
76 chronically ill and ageing patients. (1;2) To comply with these demands and manage the
77 growing impact they have on the national healthcare budgets, a different approach to
78 healthcare delivery is needed. (3-5) A relevant concept that is in line with changing patient
79 demands is 'Positive Health' of Huber et al. (6) This holistic concept shifts the traditional and
80 principally biomedical focused care towards a model with greater emphasis upon other
81 dimensions of patients' lives, including psychological, social, and spiritual well-being
82 (meaningfulness), their quality of life and their daily functioning. (6)

83 In this time of change towards a holistic healthcare delivery approach, several transition
84 models have been developed. One of these includes Porter's 'Value-Based Healthcare
85 Delivery' (VBHC). (7) VBHC uses a 'physicians in the lead' (PIL) strategy. This strategy engages
86 physicians in organizational processes and, making them responsible for the quality and
87 efficiency of their department's care delivery. This strategy arises from the belief that
88 physicians have the power to lead the reform of healthcare and to provide care in an
89 effective, efficient and cost-effective way. (8) Within VBHC, value is defined as the patient
90 health outcomes per dollar spent, (7) and ideally, this high-value care delivery system would
91 manage the healthcare needs of patients while keeping care expenditures in check.

92 VBHC comprises six interdependent components: 1. organizing healthcare around patients'
93 medical conditions (a full care cycle) rather than around physicians' medical specialties; 2.
94 measuring costs and outcomes for each patient; 3. developing bundled prices for each care
95 cycle; 4. integrating care across separate facilities; 5. expanding geographic reach; and 6.
96 building an enabling Information Technology platform. VBHC provides many elements that

For peer review only

could support a holistic care model, for example, an inter-professional team approach to rehabilitation as a way to improve patient outcomes. (7) VBHC prescribes integrated care that exceeds the traditional boundaries of care that is usually provided by a physician.

Although the transition to VBHC in healthcare has already begun, VBHC, as a PIL strategy to improve holistic care, has not been sufficiently substantiated in the literature. Although Porter does provide an approach to the full cycle of care and to health outcomes, implementation studies (9-11) do not address the holistic features of health proposed by Huber et al. (6) Moreover, Huber shows that there is a large discrepancy between the perspectives of patients and healthcare professionals concerning the relative importance of the various dimensions. (6) Whereas patients and nurses find all six dimensions almost equally important, physicians indicate dimensions other than bodily functions as less important. (6) As patients seem to have a broader view on their health than physicians do and physicians do not seem to sufficiently recognize the holistic nature of patient needs, the question arises whether a PIL model is capable of introducing and providing holistic care.

The aim of this research was to elicit various stakeholders' perspectives on the PIL strategy in the transition to holistic healthcare and to understand the perceived advantages, barriers, opportunities for improvement, and risks to PIL in this transition. The research questions were:

- *What are the stakeholders' perspectives on the PIL strategy?*
- *What are the stakeholder's perspectives on holistic care?*
- *How do the stakeholders' perspectives on the PIL strategy relate to their perspectives on holistic healthcare delivery?*

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

METHODS

Setting

This study was conducted in a general hospital in the Netherlands at a Obstetrics and Gynaecology department that was halfway through the process of implementing VBHC and had integrated a PIL strategy. In this context all physicians in a department share responsibility regarding the quality and efficiency of healthcare delivery, with one physician in the lead in every department. This physician in the lead receives support from an operational manager and a business administration manager, but remains ultimately accountable to the Board of Directors concerning the organizational processes, performance, and quality of healthcare delivery of the department. The Board of Directors in turn supports PIL by facilitating leadership and management courses and monitors the results as well as the compliance of the department with the interests of the hospital. Besides leadership and managerial tasks, the physician in the lead is required to remain clinically active.

Study design

An interpretative and descriptive, qualitative design was used. (12;13) Knowledge was gained from a deep understanding of the stakeholders' perspectives from their individual experiences. The use of open-ended questions during the interviews allowed the respondents to talk in depth, choosing their own words. The format provided the interviewer an opportunity to probe for a deeper understanding, ask for clarification and allow the interviewee to steer the direction of the interview. In this way the interviewer

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

could develop a real sense of the stakeholders' understanding of the situation, their experience and associated perspectives.

Participants and procedure

We used purposeful sampling to select stakeholders. (12;13) Stakeholders were explicitly selected by a hospital administrator in hopes of generating appropriate and useful data. Selection criteria included: two stakeholders of each relevant stakeholder group that were a representative sample, were actively involved in policy discussions, and actively contributing to policymaking regarding the hospital's future healthcare delivery plans. Between April and June 2016, a physician (RM) conducted semi-structured one-on-one, in-depth interviews with members of all stakeholder groups of one Obstetrics and Gynaecology department; the hospital's Patient Council (n=1), nurses (n=2), midwives (n=2), physicians (n=2), residents (n=2), the non-medical business managers of the department (n=2), and the Board of Directors (n=2). In addition, a representative of the Dutch National Healthcare Institute's Innovative Healthcare Professions programme was interviewed (the advisory board for the Dutch Ministry of Health on innovations and improvements in healthcare professions and education) (n=1). Of the 14 participants, 12 were female and two were male. One of the two male participants was a representative of the Board of Directors and the other a representative of the non-medical business managers of the department. The gender and ethnicity distribution was representative for each stakeholder group. All 14 stakeholders were approached for inclusion by e-mail invitations, and all agreed to participate (the secretary of the hospital's Patient Council was approached to recruit two representatives, however, only one delegate was suggested). The number of participants was predetermined to obtain broad stakeholder perspective; data saturation was reached with the initial cohort.

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

163 Saturation was evaluated by determining the amount of new data generated by each
164 transcript. The Hospital Ethical Review Board waived the requirement for ethics approval. All
165 participants provided written informed consent for audio-recording the interview and
166 publishing of the group data.

Patient and Public Involvement

170 Patients' perspectives receive a growing attention in the healthcare delivery approach.
171 Patients' preferences, priorities and experiences are important markers that help patients
172 and physicians in the shared decision making process. The strategies that are implemented
173 in healthcare should support such developments and should be constantly optimized to
174 meet the healthcare demands of patients. In order to meet the holistic healthcare demands
175 of patients, it is needed to explore whether the PIL strategy supports a holistic approach.
176 The client board of the hospital was identified to represent groups of patients. Patients were
177 not involved in the conduct of the study.

Data collection

180 Keywords and phrases such as "physicians in the lead", "medical leadership", "value-based
181 healthcare", "holistic care", "healthcare transition", "healthcare delivery" were used in the
182 PubMed, CINAHL, PsycINFO and Google Scholar search engines to find relevant literature in
183 order to theoretically frame the transition to value-based and holistic healthcare delivery
184 and PIL. A tailored topic list was drafted from theoretical concepts to structure the
185 interviews and to organize the data collection (Appendix 1). In view of the exploratory goal

For peer review only

1
2
3 186 of the study, questions were mainly open. Each interview lasted 30-60 minutes with a
4
5 187 median of 40 minutes.
6
7
8 188 *Data Analysis*
9
10
11
12 189 The interviews were transcribed verbatim. (12;13) The transcripts were anonymised other
13
14 190 than for the interviewer (RM) and were analysed by RM and another researcher using
15
16 191 content analysis. (12;13) A qualitative data analysis software program (MAX.QDA 2007) was
17
18 192 used for coding the narratives. Data were categorized with open and axial coding. During the
19
20 193 first step of open coding, sentences of the transcripts were coded with a label that
21
22 194 summarized the meaning of that sentence; this resulted in a large number of labels.
23
24 195 Subsequent axial coding reduced the number of labels by clustering the content of closely
25
26 196 related labels into categories. Thirty-nine categories remained after axial coding.
27
28 197 This process was guided by the concept of Huber et al.(6) and the research questions. In the
29
30 198 final step of selective coding, connections were made between the categories identified in
31
32 199 the axial coding process. This step was an iterative process, in which the research team
33
34 200 repeatedly discussed until consensus was reached about the key themes.
35
36 201
37
38 202
39
40 203
41
42 204
43
44 205
45
46 206
47
48 207
49
50
51
52
53
54
55
56
57
58
59
60

For peer review only

1
2
3 208 **RESULTS**
4
5 209 Three key themes were derived from the analysis of the stakeholders' perspectives: PIL's
6
7 210 role in the transition to holistic healthcare delivery, the requirements to achieve holistic
8
9
10 211 care, and a new strategy for hospitals to achieve holistic healthcare delivery. All data
11
12 212 presented in the results are based on the stakeholders' perspectives, unless it is specifically
13
14 213 mentioned that it is not.
15
16
17
18 214 **PIL in the transition to holistic healthcare delivery**
19
20
21 215 All stakeholders mentioned that a transition to holistic healthcare delivery seems to be
22
23
24 216 inevitable and a desired development. But the researchers wanted to understand if
25
26 217 *introducing 'PIL' is the same as introducing holistic care in the hospital.*
27
28
29 218 **Facilitators to holistic care through PIL**
30
31 219 All stakeholders stated that the main advantages of PIL are related to the dimensions 'bodily
32
33 220 functions' and 'daily functioning' of Huber et al. (6) The physician participants reported that
34
35
36 221 they are able to see a patient with a holistic view. The extent to which the physician has a
37
38 222 holistic view however, depends on the physician's specialty. Besides specialty, the
39
40 223 physician's experience can have a beneficial influence on the physician's capacity to provide
41
42
43 224 holistic care.
44
45
46 225 *"Geriatricians and oncologists will look not only at the bodily functions but will have a*
47
48 226 *broader view of components that add value for patients." (Resident)*
49
50
51 227 The physicians can lead the practice, as they have knowledge about the physical needs of
52
53 228 patients, treatments available, resources needed for patient care, and developments in
54
55
56 229 medical care. Physicians have a certain influence within a team, which can help in
57
58
59
60

For peer review only

transferring a holistic view to the rest of the team.

"If physicians would have a holistic view it would be very favourable as they have a lot of influence on all levels of the organization to change things. If I want something from the Board of Directors, I have to pass several levels, and in the end, I will still not succeed to reach them. If a physician approaches the Board of Directors, they get through immediately". (Manager)

Barriers to holistic care through PIL

The first barrier to PIL providing holistic healthcare is time. The short time frame physicians have for each patient does not make it suitable to facilitate holistic care.

"A physician has ten minutes for each patient, they do not have time to check whether patients are healthy on all these dimensions. Moreover, I do not see any physician doing this." (Nurse)

Most stakeholders, except for the physicians themselves and the Board of Directors, felt that another barrier is that physicians have a narrowed view due to their strong biomedical focus. This focus is often at the expense of other dimensions; for instance, this view rarely includes meaningfulness as part of the spiritual dimension. This narrowed view may result in an over-focus on diagnostics and interventions.

"Our profession is based on seeing clients from a healthy perspective. As soon as a gynaecologist is consulted for advice concerning a pregnant woman, you may assume that their care delivery approach is focused on disease. Then it is often just a matter of wait and see until they start their interventions, which are in my opinion not always necessary." (Midwife)

For peer review only

A third barrier concerns the physician's engagement in management and leadership tasks. Physician's priority is to be a clinician rather than a manager and leader. The management course that is provided in the hospital is considered insufficient, as managers usually study management for years. Also, the time allocated for PIL performing management tasks is insufficient; PIL still provide care and managing a department is a complex and full-time task. Although many PIL manage to take care of their own department, they seem to lose sight of the bigger picture and do not act in collaboration with other departments and the hospital's interests.

"Physicians in the lead manage to take care of their own department and their interests, but do not always manage to collaborate with other departments and act in the hospital's interests." (Board of Directors)

Opportunities for improvement

The main opportunity for improvement is educating physicians in the delivery of holistic healthcare and simultaneously in management and leadership. A second opportunity for improvement is enhanced collaboration with other professions, such as nursing. Awareness about contributions of other professionals is important, as is awareness of the way in which they are complementary to each other.

"We work with nurses every day, but we do not know anything about the content of their education and what exactly they are competent and authorized for."(Resident)

For the current PIL, a broader view based on collaboration, interrelations between departments and responsibility for hospital interest in addition to the department's interests can be developed through educational programs. Furthermore, not every physician is able to be a department leader or manager and perhaps some should focus mainly on patient care,

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

while others should focus more on leadership and management tasks in addition to patient care.

Risks

Threats to the enhancement of holistic care are mostly related to either the consequences of the barriers or the failure to implement the opportunities for improvement. One of the risks is that holistic healthcare is not achieved because of the strong biomedical focus. Another risk is raised when self-interest of the department is prominent, rather than the interrelations with other departments leading to a potential consequence of the hospital not providing a full cycle of care for patients. Furthermore, a hierarchic structure, where only the physician is in the lead, can cause insufficient representation of the perspectives of other professions. For other professions, it may be more difficult to make a change.

"With this strategy there is one doctor at the top, if the doctor has a different view than the rest of the team, it is a burden for the team." (Midwife)

Requirements to achieve holistic care

From the stakeholders' perspectives, it became clear that the PIL strategy is insufficient to meet the holistic requirements proposed by Huber et al. (6) However, all participants confirmed that all six dimensions should be considered as important healthcare outcomes. As patients' health outcomes are not yet systematically measured, there is a lack of clarity about who should take the lead in detecting the needs of patients and arranging the processes needed to improve their health status. All stakeholder groups mentioned that the care is supposed to be value-based and holistic, but that this is often not yet the case in practice.

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

"The reality is always more persistent than the ideas that are being launched. Things always turn out differently than the perspectives that are outlined. As a patient, you are subject to this." (Patient Council)

The system still needs to re-organize and adapt to further meet the requirements for holistic care.

The care chain

In order to provide holistic care, it is essential that the healthcare providers have a shared vision. From the perspectives of several stakeholders, patients should be supported in a non-hospital setting to achieve holistic healthcare. A holistic approach should be the core of care delivery in every link of the care chain; therefore, hospital-based professionals should consider the six dimensions essential for patients to improve their health. Referrals and collaboration between a variety of disciplines and professions in and outside the hospital is needed for holistic care delivery.

Roles in the organization of holistic healthcare

From the stakeholders' perspectives, five important roles were defined besides PIL in organizing holistic care:

Patients

All stakeholders confirmed the need for empowering patients. The structure of 'patients in the lead' was mentioned several times. Patients in the lead were thought to be able to take responsibility for their own health and to manage their care in a holistic way as far as possible. Illness and age were mentioned as possible reasons why patients may not be able to take responsibility for their own health.

For peer review only

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

319 *"In current society, people were not raised with the mentality to take responsibility for their*
320 *own health and manage their own care. It will take a generation to achieve this." (Doctor)*

321 Support is thus needed to guide and help patients in coordinating and managing their own
322 healthcare. Patients who are still not capable to manage their care, despite receiving
323 support, are dependent on safety nets. At this point, the question emerged regarding who
324 should help the patient by fulfilling a coordinating role if these limits are reached and who
325 should take the lead in coordinating the healthcare of these patients.

326 ### Informal caregivers

327 A marked difference emerged in the perspectives of the various stakeholders on the role of
328 informal caregivers. The representative of the Innovative Healthcare Professions programme
329 and the representatives of the Board of Directors were confident that informal caregivers
330 can provide a large part of the care that is needed. Several other stakeholders mentioned
331 that society is increasingly individualistic, which makes informal care delivery not a very
332 viable or desired option. They expressed their concern that a majority of patients might not
333 even have an informal caregiver who could provide care that fits their health needs.
334 Moreover, when care is provided by informal care givers, the privacy of patients can be at
335 stake.

336 *If my father poops in his pants, my mother cannot ask the neighbours to help him. What*
337 *about his privacy? (Nurse)*

338 ### Nurses

339 All stakeholders mentioned that nurses are an important link in the healthcare chain. They
340 expressed the conviction that nurses are capable to function as case-managers and to
341 coordinate holistic care for patients in primary as well as secondary healthcare. This belief

For peer review only

was attributed to the attention to holistic skills in the nurse training. Some remarked that it should be considered whether district nurses can get a good overview of a patient's health during their short visits and whether there might be time and resources to deploy them for a coordinating role in holistic care.

General Practitioner

The role of the general practitioner (GP) was also considered to be very important. The GP was seen as a generalist who has a holistic view of patients and would not unnecessarily refer patients to a specialist. Stakeholders agreed that follow-up can often be done by a GP, which has a proximity advantage for the patient and a cost advantage for the healthcare system. Overall, while the GP can be a good coordinator in a patient's healthcare, the limited amount of time for each patient and workload are obstacles to GPs fulfilling a leading or coordinating role.

The need for a new care management coordination centre

"If patients enter the hospital or a healthcare organization, they do not know where to go, there is so much bureaucracy that they first have to tell their story five times." (Midwife)

The majority of stakeholders mentioned that there is a lack of support for patients to manage their care. A suggested solution to this lack of support include a new care management coordination centre, where patients can receive services that are similar to the core activities of a church, community centre and information desk. This centre needs to function as an accessible place where people can easily gain information and support to manage their healthcare and function as 'patients in the lead'. Additionally, the need for

For peer review only

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

364 such a centre is sometimes mentioned in conjunction with 'case-managers'. Case-managers
365 are able to help people navigate their way. Huber et al's dimension 'meaningfulness', (6) is
366 assumed to be an objective that was traditionally paid attention to by the church or other
367 religious organizations. As people have different perspectives about religion, this new centre
368 could pay attention to the dimension 'meaningfulness'.
369

370 *"Formerly, a lot of people went to the church, now this is much less the case. People are*
371 *searching for alternatives for meaningfulness and mindfulness." (Physician)*

372 **A new strategy for hospitals to support holistic healthcare delivery**

373 The main key for achieving a holistic approach to healthcare delivery seems to be
374 collaboration between all the providers in the care chain. All healthcare providers within the
375 hospital are complementary to each other, and physicians cannot be expected to consider
376 and balance all the dimensions of holistic healthcare in solitude. Continuing the PIL strategy
377 may be at the expense of the holistic dimensions of Huber et al. (6) and can be an obstacle in
378 achieving holistic healthcare in VBHC. The majority of stakeholders mentioned that the
379 department should be led by complimentary stakeholders in addition to PIL to ensure
380 holistic healthcare. A new strategy of 'team in the lead' was proposed by the researchers.
381 Careful consideration should be given to the composition of the team; all professions should
382 be adequately represented in the team per specialty.

383 *"In my opinion, even the Patient Council may take part in this." (Midwife)*

384

385

For peer review only

DISCUSSION

We performed a qualitative study and explored stakeholders' perspectives on the PIL strategy in the transition to holistic healthcare. We identified several bottlenecks, solutions and roles in organizing this transition. Features of PIL in the transition were elucidated and did not seem to align with the aim of providing holistic healthcare. A new strategy of 'team in the lead' was proposed. Moreover, participants agreed that a new care management coordination centre is needed that may provide social and spiritual support as well as the information that patients need in order to manage their own care.

Comparison with the existing literature

The findings concerning the importance of integration of healthcare delivery are in line with the integrated practice units and systems integration as described in VBHC. (11) Other concepts in the literature also support integrated care to improve healthcare delivery for patients. (14;15) Although PIL can contribute in controlling the increasing healthcare costs and improving organizational performance, (16-21) we noticed that PIL in our study do not seem to contribute sufficiently to the interrelations needed between departments and thus the integration of units. Collaboration and integration within and between departments is necessary to provide holistic care. In addition, healthcare leaders are needed that go beyond integrated care and actively support people in all dimensions for optimized healing and managing their own health. (22) Based on our results, we postulate that holistic care may be achieved by establishing a 'team in the lead'. To create a patient oriented team, it is needed to transform the relationships among individual providers. (23) The proposed 'team in the lead' in our research can be linked to models about 'shared leadership' in the literature. (24) Shared leadership is management or leadership at a team-level, which empowers staff

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

within the decision-making processes. (24) Effective collaborative relationships and teamwork within shared-leadership are thought to improve integration, care practices and patient outcomes. (24;25) Moreover, an effective and efficient 'team in the lead' requires collective competence. Lingard describes the necessity of team competence in medicine. (26) She mentions that individual competence alone, which is the focus in medicine, is insufficient for the quality of healthcare delivery and holds us back from meaningful change in how we educate for, and practice as, healthcare teams. Competent individuals can form incompetent teams. The competence of leadership is increasingly important in competency frameworks for professionals, but it is in complex relation to team collaboration. (26) Lingard claims that we risk perpetuating the myth that "strong leadership" is the panacea for what ails teamwork but that what "strong leadership" entails will vary according to clinical context; the nature of leadership in acute care delivery such as in surgical, resuscitation, and trauma teams may be different from the leadership that is needed in teams that provide chronic and complex care.

Besides the concept of a 'team in the lead' to improve integration of care and realize a holistic healthcare delivery approach, the concept of a care management coordination centre seems to be required to support patients to be in the ultimate 'lead' of their health. This centre corresponds to features of integrated care centres described in the literature, (23) of which there are physician-led care and non-physician (case-managers, home care agencies, or area agencies) led care centres. Such centres provide similar services to the ones we have described above, such as patient information and coordination of care. However, these centres, that are serving patients who are often medically and socially vulnerable and require a wider range of needs, do not seem to offer direct possibilities to meet the spiritual and social needs of patients. In reality, a care manager in such centres

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

may still refer people who have such needs. Irrespective of the model used to integrate care, collaborative and interdependent formal and informal relationships between all the links in the care chain remain necessary for providing holistic care. (23)

Advantages and limitations

To our knowledge, this is the first study to explore the PIL strategy in the transition to holistic healthcare. Our findings are supported by comparable notions about organizational reforms in healthcare. (27) This study provides the advantages, barriers, opportunities for improvement and risks of the strategy PIL, therefore giving broader insights and exploration. To achieve reliability, we made use of transcribed recordings, instead of making use of handwritten notes. (12;13) Data were transcribed by the interviewer for accuracy and enhanced familiarity with the data. To ensure reliable data analysis, two researchers were involved in labelling the codes. The themes were discussed within the research team until consensus was reached. To ensure credibility, the respondents were chosen from individuals identified as representative of the group. (12;13) Moreover, quotes from the transcripts were tied to the text so the reader can see how the interpretation is based on the data. To ensure alignment between the shared information and the interpretation of the interviewer, the interviewer (RM) explored the hospital's strategy documents, in order to be aware of and understand the hospital's processes. In this way the information shared could be better understood and interpreted. Questions were mainly open-ended to encourage information sharing. Answers were intermittently paraphrased and summarized to give the respondent the opportunity to add important perspectives, confirm the interpretations and to clear misunderstandings of the interviewer. Information about anonymity was given prior to the interview. This was expected to not withhold the participants from speaking freely.

For peer review only

The present study is limited by the fact that it was conducted in one country in one institution. As the organization of the healthcare system and the strategy of hospitals differ among countries, the content may be less relevant to other settings. In addition, hospital stakeholders are internally oriented, which may have influenced the way they described the organization of holistic care. Although these are aspects that limit the transferability of our findings, we think that the concepts used in this study are internationally recognized and the organization of healthcare systems in different countries is similar enough to justify the assumption that our findings will have some relevance and potential transferability to other contexts and settings.

Suggestions for future research

Although we gained insights into PIL in the transition to holistic healthcare in the Netherlands, it would be interesting to explore the effect of introducing PIL in different cultures. Moreover, in order to improve the PIL strategy, observational studies may be useful to determine significant barriers of PIL in practice. Furthermore, research on the effectiveness of the proposed concept of a 'team in the lead' would be necessary to explore whether this model is effective and would lead to the desired holistic care in practice.

Implications

It is important for the PIL to be aware of the stakeholders' perspectives and of the holistic approach to healthcare delivery. Although physicians can be educated to focus more on the holistic outcome than on cure and treatment, a 'team in the lead' approach should be taken into consideration to achieve holistic healthcare. Organizing holistic care requires more integration and teamwork across facilities in the care chain. Moreover, there is a demand for a care management coordination centre that coordinates care and supports patients on the

For peer review only

different dimensions of holistic care. Better support on these dimensions may lead to more healthy 'patients in the lead'.

CONCLUSION

The transition to a value-based and holistic approach in healthcare is desirable. Although VBHC is an important step in the right direction due to the integrative aspects it offers, the PIL strategy may be at the expense of the holistic aims in the healthcare delivery approach. To realize a holistic healthcare approach, a strategy of a 'team in the lead' should be considered, as different professional groups complement each other in the full care cycle.

Furthermore, the current organization of holistic care lacks support for patients to manage their care. A care management coordination centre is required to support patients in realizing the care that is needed to improve their health outcomes. A second important aspect in the organization of holistic care is that every link in the care chain contributes to holistic care delivery, therefore collaboration and integration across the care chain is necessary.

For peer review only

518 **ACKNOWLEDGEMENTS** We like to thank all the respondents for their sincerity and
519 generosity of sharing their perspectives with us. Also, we would like to thank Nesibe
520 Akdemir (NA), a PhD student in medical education, for her contribution in analysing the
521 data.

522 **CONTRIBUTORS**

523 RM, CH and FS contributed to the conception and development of the study, project
524 management, reporting and publication. RF, CH and FS developed the topic list for the semi-
525 structured interviews. RM and FS participated in participant recruitment and RM in the data
526 collection. RM performed all interviews. RM, CH, and FS developed and refined the coding
527 framework, and RM and NA performed the data analysis. RM prepared the first draft of the
528 manuscript. RM, CH, and FS were involved in drafting and revising the manuscript and have
529 given final approval of the version to be published. RM takes responsibility for the
530 manuscript.

531 **CONFLICT OF INTEREST STATEMENT** All authors have completed the ICMJE uniform
532 disclosure form at http://www.icmje.org/coi_disclosure.pdf and declare: no support from
533 any organisation for the submitted work; no financial relationships with any organisations
534 that might have an interest in the submitted work in the previous three years, no other
535 relationships or activities that could appear to have influenced the submitted work

536 **TRANSPARENCY DECLARATION** The lead author affirms that the manuscript is an honest,
537 accurate, and transparent account of the study being reported; that no important aspects of
538 the study have been omitted; and that any discrepancies from the study as planned have
539 been explained.

For peer review only

FUNDING: No funding was provided.

DATA SHARING De-identified transcribed interviews and the code set can be made available by request to the corresponding author.

For peer review only

REFERENCES

(1) Christensen K, Doblhammer G, Rau R, Vaupel JW. Ageing populations: the challenges ahead. Lancet 2009 Oct 3;374(9696):1196-208.

(2) Wagner EH, Austin BT, Davis C, Hindmarsh M, Schaefer J, Bonomi A. Improving chronic illness care: translating evidence into action. Health Aff (Millwood) 2001 Nov;20(6):64-78.

(3) Barr VJ, Robinson S, Marin-Link B, Underhill L, Dotts A, Ravensdale D, et al. The expanded Chronic Care Model: an integration of concepts and strategies from population health promotion and the Chronic Care Model. Hosp Q 2003;7(1):73-82.

(4) Bodenheimer T, Fernandez A. High and rising health care costs. Part 4: can costs be controlled while preserving quality? Ann Intern Med 2005 Jul 5;143(1):26-31.

(5) Huber M, Knottnerus JA, Green L, van der Horst H, Jadad AR, Kromhout D, et al. How should we define health? BMJ 2011 Jul 26;343:d4163.

(6) Huber M, van VM, Giezenberg M, Winkens B, Heerkens Y, Dagnelie PC, et al. Towards a 'patient-centred' operationalisation of the new dynamic concept of health: a mixed methods study. BMJ Open 2016 Jan 12;6(1):e010091.

(7) Porter ME. What is value in health care? N Engl J Med 2010 Dec 23;363(26):2477-81.

(8) Porter ME, Teisberg EO. How physicians can change the future of health care. JAMA 2007 Mar 14;297(10):1103-11.

(9) Lee VS, Kawamoto K, Hess R, Park C, Young J, Hunter C, et al. Implementation of a Value-Driven Outcomes Program to Identify High Variability in Clinical Costs and Outcomes and Association With Reduced Cost and Improved Quality. JAMA 2016;316(10):1061-72.

(10) Nilsson K, Bσσthe F, Andersson AE, Wikstr÷m E, Sandoff M. Experiences from implementing value-based healthcare at a Swedish University Hospital a longitudinal interview study. BMC Health Serv Res BMC Health Services Research 2017;17(1).

(11) Porter ME, Pabo EA, Lee TH. Redesigning primary care: a strategic vision to improve value by organizing around patients' needs. Health Aff (Millwood) 2013 Mar;32(3):516-25.

(12) Green J, Thorogood N. Qualitative methods for health research. Los Angeles: SAGE; 2009.

(13) Mortelmans D. Manual qualitative research methods (in Dutch: Handboek kwalitatieve onderzoeksmethoden). Leuven; Den Haag: Acco; 2013.

(14) Plochg T, Klazinga NS. Community-based integrated care: myth or must? Int J Qual Health Care 2002 Apr;14(2):91-101.

(15) Kodner DL, Spreeuwenberg C. Integrated care: meaning, logic, applications, and implications--a discussion paper. Int J Integr Care 2002;2:e12.

(16) Clark J. Medical leadership and engagement: no longer an optional extra. J Health Organ Manag 2012;26(4-5):437-43.

For peer review only

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

595 596 (17) Daly R. Putting physicians in the lead for cost containment. Healthc Financ Manage 2013 Dec;67(12):52-9.

597 598 (18) O'Sullivan H, McKimm J. Medical leadership: an international perspective. Br J Hosp Med (Lond) 2011 Nov;72(11):638-41.

599 600 (19) Schwartz RW, Tumblin TF. The power of servant leadership to transform health care organizations for the 21st-century economy. Arch Surg 2002 Dec;137(12):1419-27.

601 602 (20) Warren OJ, Carnall R. Medical leadership: why it's important, what is required, and how we develop it. Postgrad Med J 2011 Jan;87(1023):27-32.

603 604 (21) Yolande W, Gerhard ACS, Pauline LM, Dick LW. Doctor in the lead: balancing between two worlds. Organization 2011;18(4):477-95.

605 606 (22) Plochg T, Ilinca S, Noordegraaf M. Beyond integrated care. J Health Serv Res Policy 2017 Jan 1;1355819617697998.

607 608 609 (23) Griffin JD, Andrew F. Integrated care management in rural communities. Portland, ME: University of Southern Maine, Muskie School of Public Service, Maine Rural Health Research Center; 2014. Report No.: Working Paper #54.

610 611 (24) Al-Sawai A. Leadership of healthcare professionals: where do we stand? Oman Med J 2013 Jul;28(4):285-7.

612 613 (25) Bergman JZ, Rentsch JR, Small EE, Davenport SW, Bergman SM. The shared leadership process in decision-making teams. J Soc Psychol 2012 Jan;152(1):17-42.

614 615 616 (26) Lingard L. Paradoxical Truths and Persistent Myths: Reframing the Team Competence Conversation. Journal of Continuing Education in the Health Professions 2016;36 Suppl 1:S19-S21.

617 618 (27) Locock L. Healthcare redesign: meaning, origins and application. Qual Saf Health Care 2003 Feb;12(1):53-7.

619
620

For peer review only

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

APPENDIX

Appendix 1: Topic list

Topics	Sub-topics
Change in healthcare delivery approach	- Are you familiar with the changes in healthcare delivery demanded by the Dutch Ministry of Health? - What do you know about the organization of this transition to value-based and holistic healthcare delivery? After introducing these topics, participants received an introduction to the six dimensions of holistic health proposed by Huber et al.(6) and the reorganization of healthcare delivery demanded by the Dutch Ministry of Health. After this introduction, the following questions were asked:
Organization of care	- What are your perspectives on the transition to value-based and holistic healthcare delivery? - How would you like this desired care delivery to be organized?
Coordination	- Who should take leadership in the organization of this care and in supporting the patient?
Physicians in the lead	- What do you think about 'physicians in the lead' in holistic healthcare? - What are the advantages, barriers, opportunities for improvement, and risks in the transition to the desired healthcare approach? - Do you think the strategy of 'physicians in the lead' will lead to holistic healthcare?

For peer review only

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

Index of items reported in our research in accordance with the Standards for Reporting Qualitative Research (SRQR)*

1.	Title	p. 1
2.	Structured abstract	p. 2
3.	Problem formulation	p. 4
4.	Purpose or research question	p. 6
5.	Qualitative approach and research paradigm	p. 7
6.	Researcher characteristics, reflexivity	p. 8
7.	Context	p. 7
8.	Sampling strategy	p. 8
9.	Ethical issues pertaining to human subjects	p. 9
10.	Data collection methods	p. 9
11.	Data collection instruments/ technologies	p. 9
12.	Units of study	p. 8
13.	Data processing	p. 9
14.	Data analysis	p. 9
15.	Techniques to enhance trustworthiness	p. 21
16.	Synthesis and interpretation	p. 11-18
17.	Links to empirical data	p. 11-18
18.	Integration with prior work, implications, transferability, and contribution(s)	p. 22, 23 and 25
19.	Limitations	p. 3 and 22
20.	Conflicts of interest	p. 25
21.	Funding	p. 26

[*] Standards by Bridget C. O'Brien, PhD, Ilene B. Harris, PhD, Thomas J. Beckman, MD, Darcy A. Reed, MD, MPH, and David A. Cook, MD, MHPE

For peer review only

BMJ Open

Do 'physicians in the lead' support a holistic healthcare delivery approach? A qualitative analysis of stakeholders' perspectives

Journal:	*BMJ Open*
Manuscript ID	bmjopen-2017-020739.R3
Article Type:	Research
Date Submitted by the Author:	07-May-2018
Complete List of Authors:	Malik, Romana; OLVG Hospital, Department of Research and Education Hilders , Carina ; Erasmus School of Health Policy & Management Scheele, Fedde; OLVG Hospital , Department of Research and Education ; Athena Institute, Faculty of Earth and Life Sciences, VU University
Primary Subject Heading:	Health policy
Secondary Subject Heading:	Health services research, Health policy, Medical management, Patient-centred medicine, Qualitative research
Keywords:	Medical leadership, Physicians, Holistic care, Value-based healthcare, HEALTH SERVICES ADMINISTRATION & MANAGEMENT, Healthcare delivery

SCHOLARONE™
Manuscripts

TITLE

Do 'physicians in the lead' support a holistic healthcare delivery approach? *A qualitative analysis of stakeholders' perspectives*

AUTHORS

Romana F. Malik (RM) M.D.[1]

Carina G. J. M. Hilders M.D., Ph.D.[2]

Fedde Scheele M.D., Ph.D. [3, 4, 5]

AFFILIATIONS

[1] Department of Research and Education, OLVG Hospital, Jan Tooropstraat 164, 1006AE, Amsterdam, the Netherlands.
Telephone: +31-20 510 8960 @ romana_malik@hotmail.com

[2] Erasmus School of Health Policy & Management, Rotterdam, Burgemeester Oudlaan 50, 3062 PA, the Netherlands. Telephone: +31-10 408 9177 @ C.Hilders@rdgg.nl

[3] Department of Research and Education, OLVG Hospital, Jan Tooropstraat 164, 1006AE, Amsterdam, the Netherlands.
Telephone: +31-20 480 7651 @ f.scheele@olvg.nl

[4] School of Medical Sciences, Institute of education and training, VU University Medical Center, Amsterdam, the Netherlands.

[5] Athena Institute, Faculty of Earth and Life Sciences, VU University, Amsterdam, the Netherlands.

CORRESPONDING AUTHOR Romana F. Malik (MD) OLVG Teaching Hospital, Department of Medical Education, Jan Tooropstraat 164, 1006 AE Amsterdam, the Netherlands Telephone: +31-205108292 @ romana_malik@hotmail.com

For peer review only

WORD COUNT 4801 words (Main text, excluding abstract, endnotes and exhibits)

STRUCTURED ABSTRACT

Objectives Value-based healthcare (VBHC) implies that healthcare issues are addressed most effectively with the 'physicians in the lead' (PIL) strategy. This study explores whether PIL also supports a holistic care approach that patients are increasingly demanding.

Design A qualitative research design was used.

Setting This study was conducted in a general hospital in the Netherlands with an integrated PIL strategy.

Participants Semi-structured interviews were conducted with 14 hospital stakeholders: 13 stakeholders of a Obstetrics and Gynaecology department (the hospital's Patient Council (n=1), nurses (n=2), midwives (n=2), physicians (n=2), residents (n=2), the non-medical business managers of the Obstetrics and Gynaecology department (n=2) the Board of Directors (n=2)) and a member of the Dutch National Healthcare Institute's Innovative Healthcare Professions programme.

Results According to diverse stakeholders, PIL does not support a holistic healthcare delivery approach, primarily because of the strong biomedical focus of physicians. Although physicians can be educated to place more emphasis on the holistic outcome, holistic care delivery requires greater integration and teamwork in the care chain. As different healthcare professions are complementary to each other, a new strategy of a 'team in the lead' was suggested to meet the holistic healthcare demands. Besides this new strategy, there is a need for an extramural care management coordination centre where patients are able to receive support in managing their own care. This centre should also facilitate services similar to the core function of a church or community centre. These services should help patients to deal with different holistic dimensions that are important for their wellbeing.

Conclusions The PIL strategy appears to be insufficient for holistic healthcare delivery. A 'team in the lead' approach should be considered to meet the holistic healthcare demands. Further research should focus on observing PIL in different cultures and exploring the effectiveness of the strategy 'team in the lead'.

STRENGTHS AND LIMITATIONS OF THIS STUDY

- To our knowledge, this is the first study to explore the PIL strategy in the transition to holistic healthcare. This qualitative study offers insights in different stakeholders' perspectives. These perspectives provide broad understanding on how to enhance and provide holistic care in the context of physician leadership.
- The study is limited by the fact that it was conducted in one centre in one country. As the strategy of hospitals differ across settings and/or countries, the content may be less relevant to settings without a PIL strategy.
- All stakeholders were hospital-based and internally oriented, which may have influenced the way they described the organization of holistic care.
- Because our results are based on interviews with mainly hospital-based stakeholders, they are likely to present a limited picture of the effects of the PIL strategy on the transition to holistic healthcare.

For peer review only

INTRODUCTION

The healthcare system, which is traditionally organized around acute care delivery, seems to be inadequate for managing the changing healthcare demands of the increasing number of chronically ill and ageing patients. (1;2) To comply with these demands and manage the growing impact these demands have on healthcare budgets, a different approach to healthcare delivery is needed. (3-5) A relevant concept that is in line with changing patient demands is 'Positive Health' of Huber et al. (6) This holistic concept shifts the traditional and principally biomedical focused care towards a model with greater emphasis upon five other dimensions of patients' lives, including psychological, social, and spiritual well-being (meaningfulness); their quality of life; and their daily functioning. (6)

In this time of change towards a holistic healthcare delivery approach, several transition models have been developed. One of these includes Porter's 'Value-Based Healthcare Delivery' (VBHC). (7) VBHC uses a 'physicians in the lead' (PIL) strategy. This strategy engages physicians in organizational processes, making them responsible for the quality and efficiency of their department's care delivery. This strategy arises from the belief that physicians have the power to lead the reform of healthcare and to provide care in an effective, efficient and cost-effective way. (8) Within VBHC, value is defined as the patient health outcomes per dollar spent, (7) and ideally, this high-value care delivery system would manage the healthcare needs of patients while keeping care expenditures in check.

VBHC comprises six interdependent components: 1) organizing healthcare around patients' medical conditions (a full care cycle) rather than around physicians' medical specialties; 2)measuring costs and outcomes for each patient; 3) developing bundled prices for each care cycle; 4) integrating care across separate facilities; 5) expanding excellent health care delivery services across an area, state or country; and 6) building an enabling Information

For peer review only

Technology platform to establish an efficient way of data reporting and information sharing between professionals as well as patients. VBHC provides many elements that could support a holistic care model, for example, an inter-professional team approach to rehabilitation as a way to improve patient outcomes. (7) VBHC prescribes integrated care that exceeds the traditional boundaries of care that is usually provided by a physician.

Although the transition to VBHC in healthcare has already begun, VBHC, as a PIL strategy to improve holistic care, has not been sufficiently substantiated in the literature. Although Porter does provide an approach to the full cycle of care and the link to health outcomes, implementation studies (9-11) do not address the holistic features of health proposed by Huber et al. (6) Moreover, Huber shows that there is a large discrepancy between the perspectives of patients and healthcare professionals concerning the relative importance of the various dimensions. (6) Whereas patients and nurses find all six dimensions almost equally important, physicians indicate dimensions other than bodily functions as less important. (6) As patients seem to have a broader view on their health than physicians do and since physicians may not sufficiently recognize the holistic needs of patients, the question arises whether a PIL model is capable of introducing and providing such holistic care.

The aim of this research was to elicit various stakeholders' perspectives on the PIL strategy during a transition to holistic healthcare and to understand the perceived advantages, barriers, opportunities for improvement, and risks to PIL in this transition. The research questions were:

- *What are the stakeholders' perspectives on the PIL strategy?*
- *What are the stakeholder's perspectives on holistic care?*

- *How do the stakeholders' perspectives on the PIL strategy relate to their perspectives on holistic healthcare delivery?*

For peer review only

1
2
3 138 ## METHODS
4
5
6 139 *Setting*
7
8
9
10 140 This study was conducted in a general hospital in the Netherlands at a Obstetrics and
11
12 141 Gynaecology department that was halfway through the process of implementing VBHC and
13
14 142 had integrated a PIL strategy. In this context, all physicians in a department share
15
16
17 143 responsibility regarding the quality and efficiency of healthcare delivery, with one physician
18
19 144 in the lead in each department. This physician in the lead receives support from an
20
21 145 operational manager and a business administration manager but remains ultimately
22
23
24 146 accountable to the Board of Directors concerning the organizational processes,
25
26 147 performance, and quality of healthcare delivery of the department. The Board of Directors in
27
28 148 turn supports PIL by facilitating leadership and management courses and monitors patient
29
30
31 149 care results as well as the alignment of departmental interests with hospital interests. Besides
32
33 150 leadership and managerial tasks, the physician in the lead is required to remain clinically active.
34
35
36 151 *Study design*
37
38
39
40 152 An interpretative and descriptive, qualitative design was used. (12;13) Knowledge was
41
42 153 gained from a deep understanding of the stakeholders' perspectives from their individual
43
44 154 experiences. The use of open-ended questions during the interviews allowed the
45
46
47 155 respondents to talk in depth, choosing their own words. The format provided the
48
49 156 interviewer an opportunity to probe for a deeper understanding, ask for clarification and
50
51 157 allow the interviewee to steer the direction of the interview. In this way the interviewer
52
53
54 158 could develop a real sense of the stakeholders' understanding of the situation, their
55
56 159 experience and associated perspectives.
57
58
59
60

For peer review only

1
2
3 160 *Participants and procedure*
4
5
6 161 We used purposeful sampling to select stakeholders. (12;13) Stakeholders were explicitly
7
8 162 selected by a hospital administrator in hopes of generating appropriate and useful data. Two
9
10 163 stakeholders of each relevant stakeholder group were selected to form a representative
11
12 164 sample using the following criteria: active involvement in policy discussions, and
13
14 165 contributions to policymaking regarding the hospital's future healthcare delivery plans.
15
16 166 Between April and June 2016, a physician (RM) conducted semi-structured one-on-one, in-
17
18 167 depth interviews with members of all stakeholder groups of one Obstetrics and Gynaecology
19
20 168 department: the hospital's Patient Council (n=1), nurses (n=2), midwives (n=2), physicians
21
22 169 (n=2), residents (n=2), the non-medical business managers of the department (n=2), and the
23
24 170 Board of Directors (n=2). In addition, a representative of the Dutch National Healthcare
25
26 171 Institute's Innovative Healthcare Professions programme was interviewed (the advisory
27
28 172 board for the Dutch Ministry of Health on innovations and improvements in healthcare
29
30 173 professions and education) (n=1). Of the 14 participants, 12 were female and two were
31
32 174 male. One of the two male participants was a member of the Board of Directors and the
33
34 175 other was one of the department's non-medical business managers. The gender and
35
36 176 ethnicity distribution were representative for each stakeholder group. All 14 stakeholders
37
38 177 were approached for inclusion by e-mail invitations, and all agreed to participate (the
39
40 178 secretary of the hospital's Patient Council was approached to recruit two representatives,
41
42 179 however, only one delegate was suggested). The number of participants was predetermined
43
44 180 to obtain broad stakeholder perspective; data saturation was reached with the initial cohort.
45
46 181 Saturation was evaluated by determining the amount of new data generated by each
47
48 182 transcript. The Hospital Ethics Review Board waived the requirement for ethics approval. All
49
50
51
52
53
54
55
56
57
58
59
60

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

participants provided written informed consent for audio-recording the interview and publishing of group data.

Patient and Public Involvement

Patients' perspectives receive a growing attention in the healthcare delivery approach. Patients' preferences, priorities and experiences are important markers that help patients and physicians in the shared decision-making process. The client board of the hospital was identified to represent groups of patients. Patients were not involved in the conduct of the study.

Data collection

Keywords and phrases such as "physicians in the lead", "medical leadership", "value-based healthcare", "holistic care", "healthcare transition", "healthcare delivery" were used in the PubMed, CINAHL, PsycINFO and Google Scholar search engines to find relevant literature in order to theoretically frame the transition to value-based and holistic healthcare delivery and PIL. A tailored topic list was drafted from theoretical concepts to structure the interviews and to organize the data collection (Appendix 1). In view of the exploratory goal of the study, questions were mainly open-ended. Each interview lasted 30-60 minutes with a median of 40 minutes.

Data Analysis

The interviews were transcribed verbatim. (12;13) The transcripts were anonymised other

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

than for the interviewer (RM) and were analysed by RM and another researcher using content analysis. (12;13) A qualitative data analysis software program (MAX.QDA 2007) was used for coding the narratives. Data were categorized with open and axial coding. During the first step of open coding, sentences of the transcripts were coded with a label that summarized the meaning of that sentence; this resulted in a large number of labels. Subsequent axial coding reduced the number of labels by clustering the content of closely related labels into categories. Thirty-nine categories remained after axial coding.

This process was guided by the concept of Huber et al.(6) and the research questions. In the final step of selective coding, connections were made between the categories identified in the axial coding process. This step was an iterative process, in which the research team repeatedly discussed until consensus was reached about the key themes.

For peer review only

RESULTS

Three key themes were derived from the analysis of the stakeholders' perspectives: PIL's role in the transition to holistic healthcare delivery, the requirements to achieve holistic care, and a new strategy for hospitals to achieve holistic healthcare delivery. All data presented in the results are based on the stakeholders' perspectives, unless otherwise specified.

PIL in the transition to holistic healthcare delivery

All stakeholders mentioned that a transition to holistic healthcare delivery seems to be inevitable and a desired development. But the researchers wanted to understand if *introducing 'PIL' is the same as introducing holistic care in the hospital.*

Facilitators to holistic care through PIL

All stakeholders stated that the main advantages of PIL are related to the dimensions 'bodily functions' and 'daily functioning' of Huber et al. (6) The physician participants reported that they are able to see a patient holistically. The extent to which the physician has a holistic view, however, may depend on the physician's specialty. Besides specialty, the physician's experience can have a beneficial influence on the physician's capacity to provide holistic care.

"Geriatricians and oncologists will look not only at the bodily functions but will have a broader view of components that add value for patients." (Resident)

The physicians can lead the practice, as they have knowledge about the medical needs of patients, treatments available, resources needed for patient care, and developments in medical care. Physicians have a certain influence within a team, which can help in

1
2
3 250 transferring a holistic view to the rest of the team.

"If physicians would have a holistic view it would be very favourable as they have a lot of influence on all levels of the organization to change things. If I want something from the Board of Directors, I have to pass several levels, and in the end, I will still not succeed to reach them. If a physician approaches the Board of Directors, they get through immediately". (Manager)

Barriers to holistic care through PIL

The first barrier to PIL providing holistic healthcare is time. The short time frame physicians have for each patient negatively impacts the ability to facilitate holistic care.

"A physician has ten minutes for each patient, they do not have time to check whether patients are healthy on all these dimensions. Moreover, I do not see any physician doing this." (Nurse)

Most stakeholders, except for the physicians themselves and the Board of Directors, felt that another barrier is that physicians have a narrowed view due to their strong biomedical focus. This focus is often at the expense of other dimensions; for instance, this view rarely includes meaningfulness as part of the spiritual dimension. This narrowed view may result in an over-focus on diagnostics and interventions.

"Our profession is based on seeing clients from a healthy perspective. As soon as a gynaecologist is consulted for advice concerning a pregnant woman, you may assume that their care delivery approach is focused on disease. Then it is often just a matter of wait and see until they start their interventions, which are in my opinion not always necessary." (Midwife)

For peer review only

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60

272 A third barrier concerns the physician's engagement in management and leadership tasks.
273 Physician's priority is to be a clinician rather than a manager and leader. The management
274 course that is provided in the hospital is considered insufficient, as managers usually study
275 management for years. The time PIL get to run a department is also insufficient; managing a
276 department is already a complex and full-time task on top on patient care priorities.
277 Although many PIL manage to take care of their own department, they seem to lose sight of
278 the bigger picture and do not act in collaboration with other departments and the hospital's
279 interests.

280 *"Physicians in the lead manage to take care of their own department and their interests, but*
281 *do not always manage to collaborate with other departments and act in the hospital's*
282 *interests." (Board of Directors)*

283 **Opportunities for improvement**

284 The main opportunity for improvement is educating physicians in the delivery of holistic
285 healthcare and simultaneously in management and leadership. A second opportunity for
286 improvement is enhanced collaboration with other professions, such as nursing. Awareness
287 about contributions of other professionals is important, as is awareness of the way in which
288 different professions are complementary to each other.

289 *"We work with nurses every day, but we do not know anything about the content of their*
290 *education and what exactly they are competent and authorized for." (Resident)*

291 For the current PIL, a broader view based on collaboration, interrelations between
292 departments and alignment of departmental interests with hospital interests can be
293 developed through educational programs. Furthermore, not every physician is able to be a

For peer review only

department leader or manager and perhaps some should focus mainly on patient care, while others should focus more on leadership and management tasks in addition to patient care.

Risks

Threats to the enhancement of holistic care are mostly related to either the consequences of the barriers or the failure to implement the opportunities for improvement. One of the risks is that holistic healthcare is not achieved because of the strong biomedical focus. Another risk is raised when self-interest of the department is prominent, rather than the interrelations with other departments leading to a potential consequence of the hospital not providing optimal care for patients. Furthermore, a hierarchic structure, where only the physician is in the lead, can result in insufficient representation of the perspectives of other professions. For other professions, it may be more difficult to realise changes.

"With this strategy there is one doctor at the top, if the doctor has a different view than the rest of the team, it is a burden for the team." (Midwife)

Requirements to achieve holistic care

From the stakeholders' perspectives, it became clear that the PIL strategy is insufficient to meet the holistic requirements proposed by Huber et al. (6) However, all participants confirmed that all six dimensions should be considered as important healthcare outcomes. As patients' health outcomes are not yet systematically measured, there is a lack of clarity about who should take the lead in detecting the needs of patients and arranging the processes needed to improve their health status. All stakeholder groups mentioned that the care is supposed to be value-based and holistic, but that this is often not yet the case in practice.

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

"The reality is always more persistent than the ideas that are being launched. Things always turn out differently than the perspectives that are outlined. As a patient, you are subject to this." (Patient Council)

The system still needs to re-organize and adapt to further meet the requirements for holistic care.

The care chain

In order to provide holistic care, it is essential that the healthcare providers have a shared vision. From the perspectives of several stakeholders, patients should be supported in a non-hospital setting to achieve holistic healthcare. A holistic approach should be the core of care delivery in every link of the care chain; therefore, hospital-based professionals should consider the six dimensions essential for patients to improve their health. Referrals and collaboration between a variety of complementary disciplines and professions in and outside the hospital is needed for holistic care delivery.

Roles in the organization of holistic healthcare

From the stakeholders' perspectives, five important roles were defined besides PIL in organizing holistic care; the role of patients, informal caregivers, nurses, general practitioners, and care coordination centres.

Patients

All stakeholders confirmed the need for empowering patients. The structure of 'patients in the lead' was mentioned several times. 'Patients in the lead' were thought to be able to take responsibility for their own health and to manage their care in a holistic way as much as possible. Illness and age were mentioned as possible reasons why patients may not be able to take responsibility for their own health.

For peer review only

"In current society, people were not raised with the mentality to take responsibility for their own health and manage their own care. It will take a generation to achieve this." (Doctor)

Support is thus needed to guide and help patients in coordinating and managing their own healthcare. Patients who are still not capable to manage their care, despite receiving support, are dependent on safety nets. At this point, the question emerged regarding who should help the patient by fulfilling a coordinating role if these limits are reached and who should take the lead in coordinating the healthcare of these patients.

Informal caregivers

A marked difference emerged in the perspectives of the various stakeholders on the role of informal caregivers. The representative of the Innovative Healthcare Professions programme and the representatives of the Board of Directors were confident that informal caregivers can provide a large part of the care that is needed. Several other stakeholders mentioned that society is increasingly individualistic, which makes informal care delivery not a very viable or desired option. They expressed their concern that a majority of patients might not even have an informal caregiver who could provide care that fits their health needs. Moreover, when care is provided by informal care givers, the privacy of patients can be at stake.

"If my father poops in his pants, my mother cannot ask the neighbours to help him. What about his privacy?" (Nurse)

Nurses

All stakeholders mentioned that nurses are an important link in the healthcare chain. They expressed the conviction that nurses are capable to function as case-managers and to coordinate holistic care for patients in primary as well as secondary healthcare. This belief

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

1
2
3 362 was attributed to the attention to holistic skills in the nurse training. Some remarked that it
4
5 363 should be considered whether district nurses can get a good overview of a patient's health
6
7 364 during their short visits and whether there might be time and resources to deploy them to
8
9
10 365 take on a coordinating role in holistic care delivery.
11
12
13 366 General Practitioner
14
15
16 367 The role of the general practitioner (GP) was also considered to be very important. The GP
17
18 368 was seen as a generalist who has a holistic view of patients and would not unnecessarily
19
20
21 369 refer patients to a specialist. Stakeholders agreed that follow-up can often be done by a GP,
22
23 370 which has a proximity advantage for the patient and a cost advantage for the healthcare
24
25 371 system. Overall, while the GP can be a good coordinator in a patient's healthcare, the limited
26
27
28 372 amount of time for each patient and workload are obstacles to GPs fulfilling a leading or
29
30 373 coordinating role.
31
32
33 374 The need for a new care management coordination centre
34
35
36 375 *"If patients enter the hospital or a healthcare organization, they do not know where to go,*
37
38
39 376 *there is so much bureaucracy that they first have to tell their story five times." (Midwife)*
40
41 377
42
43 378 The majority of stakeholders mentioned that there is a lack of support for patients to
44
45
46 379 manage their care. A suggested solution to this lack of support include a new care
47
48 380 management coordination centre, where patients can receive services that are similar to the
49
50 381 core activities of a church, community centre and information desk. This coordination centre
51
52
53 382 needs to function as an accessible place where people can easily gain information and
54
55 383 support to manage their healthcare and function as 'patients in the lead'. Additionally, the
56
57
58
59
60

For peer review only

need for such a centre is sometimes mentioned in conjunction with 'case-managers'. Case-managers are able to help people navigate their way. Huber et al's dimension 'meaningfulness', (6) is assumed to be an objective that was traditionally paid attention to by the church or other religious organizations. This new centre could pay attention to the dimension 'meaningfulness' outside of the context of religion.

"Formerly, a lot of people went to the church, now this is much less the case. People are searching for alternatives for meaningfulness and mindfulness." (Physician)

A new strategy for hospitals to support holistic healthcare delivery

The main key to achieving a holistic approach to healthcare delivery seems to be collaboration between all providers in the care chain. All healthcare providers within the hospital are complementary to each other, and physicians cannot be expected to consider and balance all the dimensions of holistic healthcare in solos. Continuing the PIL strategy alone may be at the expense of the holistic dimensions of Huber et al. (6) and can be an obstacle in achieving holistic healthcare in VBHC. The majority of stakeholders mentioned that the department should be led by complementary stakeholders in addition to PIL to ensure holistic healthcare. A new strategy of 'team in the lead' was proposed by the researchers. Careful consideration should be given to the composition of the team; all professions should be adequately represented in the team.

"In my opinion, even the Patient Council may take part in this." (Midwife)

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

DISCUSSION

We performed a qualitative study and explored stakeholders' perspectives on the PIL strategy in the transition to holistic healthcare. We identified several bottlenecks, solutions and roles in organizing this transition. Features of PIL in the transition were elucidated and did not seem to fully align with the aim of providing holistic healthcare. A new strategy of 'team in the lead' was proposed. Moreover, participants agreed that a new care management coordination centre is needed that may provide social and spiritual support as well as the information that patients need in order to manage their own care.

Comparison with the existing literature

The findings concerning the importance of integration of healthcare delivery are in line with the integrated practice units and systems integration as described in VBHC. (11) Other concepts in the literature also support integrated care to improve healthcare delivery for patients. (14;15) Although PIL can contribute to controlling the increasing healthcare costs and improving organizational performance, (16-21) we noticed that PIL in our study do not seem to contribute sufficiently to the interrelations and integration needed between departments. Collaboration and integration within and between departments is necessary to provide holistic care. In addition, healthcare leaders are needed that go beyond integrated care and actively support people in all dimensions for optimized healing and managing their own health. (22) Based on our results, we postulate that holistic care may be achieved by establishing a 'team in the lead'. To create a patient oriented team, it is needed to transform the relationships among individual providers. (23) The proposed 'team in the lead' in our research can be linked to models about 'shared leadership' in the literature. (24) Shared leadership is management or leadership at a team-level, which empowers staff within the

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

decision-making process. (24) Effective collaborative relationships and teamwork within shared-leadership are thought to improve integration, care practices and patient outcomes. (24;25) Moreover, an effective and efficient 'team in the lead' requires collective competence. Lingard describes the necessity of team competence in medicine. (26) She mentions that individual competence alone, which is the focus in medicine, is insufficient for the quality of healthcare delivery and holds us back from meaningful change in how we educate for, and practice as, healthcare teams. Competent individuals can form incompetent teams. The competence of leadership is increasingly important in competency frameworks for healthcare professionals, but it is in complex relation to team collaboration. (26) Lingard claims that we risk perpetuating the myth that "strong leadership" is the panacea for what ails teamwork but that what "strong leadership" entails will vary according to clinical context; the nature of leadership in acute care delivery such as in surgical, resuscitation, and trauma teams may be different from the leadership that is needed in teams that provide chronic and complex care.

Besides the concept of a 'team in the lead' to improve integration of care and realize a holistic healthcare delivery approach, the concept of a care management coordination centre seems to be required to support patients to be in the ultimate 'lead' of their health. This centre corresponds to features of integrated care centres described in the literature, (23) of which there are physician-led and non-physician (case-managers, home care agencies, or area agencies) led care centres. Such centres provide similar services to the ones we have described above, such as patient information and coordination of care. However, these integrated care centres, that are serving patients who are often medically and socially vulnerable and require a wider range of needs, do not seem to offer services to meet the spiritual and social needs of patients. In reality, a care manager in such centres

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

may still refer people who have such needs. Irrespective of the model used to integrate care, collaborative and interdependent formal and informal relationships between all the links in the care chain remain necessary for providing holistic care. (23)

Advantages and limitations

To our knowledge, this is the first study to explore the PIL strategy in the transition to holistic healthcare. Our findings are supported by comparable notions about organizational reforms in healthcare. (27) This study provides the advantages, barriers, opportunities for improvement and risks of the PIL strategy, therefore giving broader insights and exploration. To achieve reliability, we made use of transcribed recordings, instead of making use of handwritten notes. (12;13) Data were transcribed by the interviewer for accuracy and enhanced familiarity with the data. To ensure reliable data analysis, two researchers were involved in labelling the codes. The themes were discussed within the research team until consensus was reached. To ensure credibility, the respondents were chosen from individuals identified as representative of the group. (12;13) Moreover, quotes from the transcripts were tied to the text so the reader can see how the interpretation is based on the data. To ensure alignment between the shared information and the interpretation of the interviewer, the interviewer (RM) explored the hospital's strategy documents, in order to be aware of and understand the hospital's processes. In this way the information shared could be better understood and interpreted. Questions were mainly open-ended to encourage information sharing. Answers were intermittently paraphrased and summarized to give the respondent the opportunity to add important perspectives, confirm the interpretations and to clarify misunderstandings of the interviewer. Information about anonymity was given prior to the interview. This was expected to encourage participants to speak freely.

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

The present study is limited by the fact that it was conducted in one country in one institution. As the organization of the healthcare system and the strategy of hospitals differ across settings and/or countries, the content may be less relevant to other settings. In addition, hospital stakeholders are internally oriented, which may have influenced the way they described the organization of holistic care. Although these are aspects that limit the transferability of our findings, we think that the concepts used in this study are internationally recognized and the organization of healthcare systems in different countries is similar enough to justify the assumption that our findings will have some relevance and potential transferability to other contexts and settings.

Suggestions for future research

Although we gained insights into PIL in the transition to holistic healthcare in the Netherlands, it would be interesting to explore the effect of introducing PIL in different cultures. Moreover, in order to improve the PIL strategy, observational studies may be useful to determine significant barriers of PIL in practice. Furthermore, research on the effectiveness of the proposed concept of a 'team in the lead' would be necessary to explore whether this model is effective and would lead to the desired holistic care in practice.

Implications

It is important for the PIL to be aware of the stakeholders' perspectives and of the holistic approach to healthcare delivery. Although physicians can be educated to focus more on the holistic outcome than on cure and treatment, a 'team in the lead' approach should be taken into consideration to achieve holistic healthcare. Organizing holistic care requires more integration and teamwork across facilities in the care chain. Moreover, there is a demand for a care management coordination centre that coordinates care and supports patients on the

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

different dimensions of holistic care. Better support on these dimensions may lead to healthier 'patients in the lead'.

CONCLUSION

The transition to a value-based and holistic approach in healthcare is desirable. Although VBHC is an important step in the right direction due to the integrative aspects it offers, the PIL strategy may be at the expense of the holistic aims in the healthcare delivery approach. To realize a holistic healthcare approach, a strategy of a 'team in the lead' should be considered, as different professional groups complement each other in the full care cycle. Furthermore, the current organization of holistic care lacks support for patients to manage their care. A care management coordination centre is required to support patients in realizing the care that is needed to improve their health outcomes. A second important aspect in the organization of holistic care is that every link in the care chain contributes to holistic care delivery, therefore collaboration and integration across the care chain is necessary.

ACKNOWLEDGEMENTS We would like to thank all the respondents for their sincerity and generosity of sharing their perspectives with us. Also, we would like to thank Nesibe Akdemir (NA), a PhD student in medical education, for her contribution in analysing the data.

CONTRIBUTORS

RM, CH and FS contributed to the conception and development of the study, project management, reporting and publication. RF, CH and FS developed the topic list for the semi-structured interviews. RM and FS participated in participant recruitment and RM in the data

For peer review only

1
2
3 521 collection. RM performed all interviews. RM, CH, and FS developed and refined the coding
4
5 522 framework, and RM and NA performed the data analysis. RM prepared the first draft of the
6
7 523 manuscript. RM, CH, and FS were involved in drafting and revising the manuscript and have
8
9 524 given final approval of the version to be published. RM takes responsibility for the
10
11 525 manuscript.
12
13
14 526 **CONFLICT OF INTEREST STATEMENT** All authors have completed the ICMJE uniform
15
16 527 disclosure form at http://www.icmje.org/coi_disclosure.pdf and declare: no support from
17
18 528 any organisation for the submitted work; no financial relationships with any organisations
19
20 529 that might have an interest in the submitted work in the previous three years, no other
21
22 530 relationships or activities that could appear to have influenced the submitted work
23
24
25
26 531 **TRANSPARENCY DECLARATION** The lead author affirms that the manuscript is an honest,
27
28 532 accurate, and transparent account of the study being reported; that no important aspects of
29
30 533 the study have been omitted; and that any discrepancies from the study as planned have
31
32 534 been explained.
33
34
35
36
37 535 **FUNDING:** No funding was provided.
38
39
40
41 536 **DATA SHARING** De-identified transcribed interviews and the code set can be made available
42
43 537 by request to the corresponding author.
44
45
46 538
47
48 539
49
50 540
51
52 541
53
54 542
55
56
57
58
59
60

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

REFERENCES

(1) Christensen K, Doblhammer G, Rau R, Vaupel JW. Ageing populations: the challenges ahead. Lancet 2009 Oct 3;374(9696):1196-208.

(2) Wagner EH, Austin BT, Davis C, Hindmarsh M, Schaefer J, Bonomi A. Improving chronic illness care: translating evidence into action. Health Aff (Millwood) 2001 Nov;20(6):64-78.

(3) Barr VJ, Robinson S, Marin-Link B, Underhill L, Dotts A, Ravensdale D, et al. The expanded Chronic Care Model: an integration of concepts and strategies from population health promotion and the Chronic Care Model. Hosp Q 2003;7(1):73-82.

(4) Bodenheimer T, Fernandez A. High and rising health care costs. Part 4: can costs be controlled while preserving quality? Ann Intern Med 2005 Jul 5;143(1):26-31.

(5) Huber M, Knottnerus JA, Green L, van der Horst H, Jadad AR, Kromhout D, et al. How should we define health? BMJ 2011 Jul 26;343:d4163.

(6) Huber M, van VM, Giezenberg M, Winkens B, Heerkens Y, Dagnelie PC, et al. Towards a 'patient-centred' operationalisation of the new dynamic concept of health: a mixed methods study. BMJ Open 2016 Jan 12;6(1):e010091.

(7) Porter ME. What is value in health care? N Engl J Med 2010 Dec 23;363(26):2477-81.

(8) Porter ME, Teisberg EO. How physicians can change the future of health care. JAMA 2007 Mar 14;297(10):1103-11.

(9) Lee VS, Kawamoto K, Hess R, Park C, Young J, Hunter C, et al. Implementation of a Value-Driven Outcomes Program to Identify High Variability in Clinical Costs and Outcomes and Association With Reduced Cost and Improved Quality. JAMA 2016;316(10):1061-72.

(10) Nilsson K, Bσσthe F, Andersson AE, Wikstr÷m E, Sandoff M. Experiences from implementing value-based healthcare at a Swedish University Hospital a longitudinal interview study. BMC Health Serv Res BMC Health Services Research 2017;17(1).

(11) Porter ME, Pabo EA, Lee TH. Redesigning primary care: a strategic vision to improve value by organizing around patients' needs. Health Aff (Millwood) 2013 Mar;32(3):516-25.

(12) Green J, Thorogood N. Qualitative methods for health research. Los Angeles: SAGE; 2009.

(13) Mortelmans D. Manual qualitative research methods (in Dutch: Handboek kwalitatieve onderzoeksmethoden). Leuven; Den Haag: Acco; 2013.

(14) Plochg T, Klazinga NS. Community-based integrated care: myth or must? Int J Qual Health Care 2002 Apr;14(2):91-101.

(15) Kodner DL, Spreeuwenberg C. Integrated care: meaning, logic, applications, and implications--a discussion paper. Int J Integr Care 2002;2:e12.

(16) Clark J. Medical leadership and engagement: no longer an optional extra. J Health Organ Manag 2012;26(4-5):437-43.

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

(17) Daly R. Putting physicians in the lead for cost containment. Healthc Financ Manage 2013 Dec;67(12):52-9.

(18) O'Sullivan H, McKimm J. Medical leadership: an international perspective. Br J Hosp Med (Lond) 2011 Nov;72(11):638-41.

(19) Schwartz RW, Tumblin TF. The power of servant leadership to transform health care organizations for the 21st-century economy. Arch Surg 2002 Dec;137(12):1419-27.

(20) Warren OJ, Carnall R. Medical leadership: why it's important, what is required, and how we develop it. Postgrad Med J 2011 Jan;87(1023):27-32.

(21) Yolande W, Gerhard ACS, Pauline LM, Dick LW. Doctor in the lead: balancing between two worlds. Organization 2011;18(4):477-95.

(22) Plochg T, Ilinca S, Noordegraaf M. Beyond integrated care. J Health Serv Res Policy 2017 Jan 1;1355819617697998.

(23) Griffin JD, Andrew F. Integrated care management in rural communities. Portland, ME: University of Southern Maine, Muskie School of Public Service, Maine Rural Health Research Center; 2014. Report No.: Working Paper #54.

(24) Al-Sawai A. Leadership of healthcare professionals: where do we stand? Oman Med J 2013 Jul;28(4):285-7.

(25) Bergman JZ, Rentsch JR, Small EE, Davenport SW, Bergman SM. The shared leadership process in decision-making teams. J Soc Psychol 2012 Jan;152(1):17-42.

(26) Lingard L. Paradoxical Truths and Persistent Myths: Reframing the Team Competence Conversation. Journal of Continuing Education in the Health Professions 2016;36 Suppl 1:S19-S21.

(27) Locock L. Healthcare redesign: meaning, origins and application. Qual Saf Health Care 2003 Feb;12(1):53-7.

For peer review only

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

APPENDIX

Appendix 1: Topic list

Topics	Sub-topics
Change in healthcare delivery approach	- Are you familiar with the changes in healthcare delivery demanded by the Dutch Ministry of Health? - What do you know about the organization of this transition to value-based and holistic healthcare delivery? After introducing these topics, participants received an introduction to the six dimensions of holistic health proposed by Huber et al.(6) and the reorganization of healthcare delivery demanded by the Dutch Ministry of Health. After this introduction, the following questions were asked:
Organization of care	- What are your perspectives on the transition to value-based and holistic healthcare delivery? - How would you like this desired care delivery to be organized?
Coordination	- Who should take leadership in the organization of this care and in supporting the patient?
Physicians in the lead	- What do you think about 'physicians in the lead' in holistic healthcare? - What are the advantages, barriers, opportunities for improvement, and risks in the transition to the desired healthcare approach? - Do you think the strategy of 'physicians in the lead' will lead to holistic healthcare?

For peer review only

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

Index of items reported in our research in accordance with the Standards for Reporting Qualitative Research (SRQR)*

1.	Title	p. 1
2.	Structured abstract	p. 2
3.	Problem formulation	p. 4
4.	Purpose or research question	p. 6
5.	Qualitative approach and research paradigm	p. 7
6.	Researcher characteristics, reflexivity	p. 8
7.	Context	p. 7
8.	Sampling strategy	p. 8
9.	Ethical issues pertaining to human subjects	p. 9
10.	Data collection methods	p. 9
11.	Data collection instruments/ technologies	p. 9
12.	Units of study	p. 8
13.	Data processing	p. 9
14.	Data analysis	p. 9
15.	Techniques to enhance trustworthiness	p. 21
16.	Synthesis and interpretation	p. 11-18
17.	Links to empirical data	p. 11-18
18.	Integration with prior work, implications, transferability, and contribution(s)	p. 22, 23 and 25
19.	Limitations	p. 3 and 22
20.	Conflicts of interest	p. 25
21.	Funding	p. 26

[*] Standards by Bridget C. O'Brien, PhD, Ilene B. Harris, PhD, Thomas J. Beckman, MD, Darcy A. Reed, MD, MPH, and David A. Cook, MD, MHPE

For peer review only