

SUMMARY

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In this thesis we described the development of an evaluation instrument to measure the quality of care and practice management in Academic General Practices (AGPs), and their academic activities in research, innovation, teaching and education. AGPs are general practices, which cooperate with the university medical centres (UMCs) in different academic areas. The AGPs form the core of the university general practice networks in the Netherlands.

At the start of our project, there was still debate on the question what exactly formed an AGP. Since the 1980s each UMC in the Netherlands has formed networks of AGPs according to its own vision and interpretation. There was no clear and collective vision, and no uniform definition or clear profile of an AGP. The same was true for quality requirements, which the university departments of general practice had for their AGP's, if these were formulated at all. In 2003, the university department of general practice of VUmc took the initiative for this research project, because it felt the need to be able to systematically monitor and measure the quality and contributions of its own AGPs. From contacts with other universities, it soon appeared that there was a need for a joint reorientation to the tasks and positioning of AGPs, and also to the best way of determining the quality and output of these practices. In this chapter we provide a summary of the process of instrument development, with the successive steps and results of the different studies we conducted.

STEP 1. REVIEWING THE LITERATURE (CHAPTER 2)

As a first step in the development of the new evaluation instrument for AGPs, we reviewed the national and international literature on existing instruments.¹ In our literature search we acknowledged that the AGPs are part of the academic general practice networks, and that the performances of the AGPs and these networks are interconnected.^{2,3} Therefore, we reviewed the literature about the evaluation of academic general practice networks and other primary care research networks as well. The term "primary care research network" (PCRN) covers a variety of networks in primary care, that do not purely focus on research, but may also be active in teaching, and quality improvement⁴⁻⁹ (such as the Dutch academic general practice networks). In addition to the provisional instrument for AGPs of the Maastricht University, HALMA^{3,10}, which was not further developed and included hardly any items to measure the quality in AGP's, we found one accreditation scheme for research practices¹¹, (which usually are linked too with a primary care research network¹¹), and two (provisional) instruments that were proposed for the evaluation of PCRNs¹²⁻¹⁴. However, after evaluating their content and methodological quality, we considered none of them appropriate for either the evaluation of the Dutch AGPs or academic general practice network, though we did use some elements and items of HALMA and the PCRTA in our later studies (see chapter 4 and 5). Further discussion with stakeholders was needed to decide on how the Dutch AGPs, and academic general practice networks could best be evaluated. In the

next stages of our research we have tried to answer this question for the AGPs, starting with defining and demarcating the concept of an AGP.

STEP 2. CLARIFYING THE CONCEPT AND REACHING CONSENSUS ON A DEFINITION FOR AGPs (CHAPTER 3)

Experts in the field of instrument development and evaluation emphasize the importance of a clear description of the concept which the new instrument intends to measure before actually constructing an instrument.¹⁵ Only when the concept and topics have been clearly described, it is possible for others to assess whether the new instrument adequately represents the concept under study, and measures what it plans to measure. In the field of instrument development and evaluation, this is referred to as the “content validity” of the instrument.¹⁵

In the ideal situation this information can be generated from extensive available literature. However, we had found little information about what makes a practice an “academic” general practice, and what determines its success. Up to then stakeholders had defined the concept of an AGP in a variety of ways. These differences were due to a lack of consensus as to what type of GP care and AGP should provide (regular or “academic” GP care), which activities should be integrated in practice, and what aims an AGP should strive for.

We used a focus group method with stakeholders to help us clarifying what the concept entails, and what the most important characteristics, aims and

roles of AGPs are. The focus group consisted of 13 representatives from the university departments of general practice in the Netherlands and the Dutch College of General Practitioners (NHG). The group included, amongst others, GPs working in an AGP, network coordinators, and heads of the university departments of general practice. In this focus group, we arrived at the following definition, aims and functions for the Dutch AGPs:

“An Academic General Practice is an academic development practice and workplace for the discipline of General Practice. It therefore works structurally together with a university GP department. This collaboration takes place within a university network setting. An AGP focuses on the development, optimal use, and the transfer and dissemination of knowledge, and combines research, innovation, and teaching activities, with patient care. More specifically it is expected to:

- 1) Work structurally and in a scientifically sound way on generating new knowledge and improving patient care through active development of care innovations, and initiating and conducting research (the developmental function of AGPs).
- 2) Provide the best possible care and apply up-to-date knowledge in daily practice.
- 3) Participate in the transfer and dissemination of knowledge and expertise within its own professional group, other (para)medical professional groups, and medical education/training programmes (the transfer and dissemination function of AGPs).
- 4) Create a synergy between its research, innovation, patient care and teaching activities.
- 5) Serve as an exemplary role model for other general

practitioners and become a (regional) expert in specific clinical areas (the exemplary and expert function of AGPs).”

The results from our focus group study enabled us to use the activities, aims, and roles that stakeholders considered relevant for the design and content of the new instrument. The new instrument should at least cover all relevant activities of AGPs, and include sufficient and valid items to evaluate the success of the AGPs in achieving their aims and functions.

STEP 3. CLARIFYING THE CONCEPT OF QUALITY OF AGPs (CHAPTER 4)

Another concept that needed further clarification before we could continue with the actual construction of the instrument, was the concept of quality of AGPs. Quality is a subjective concept. Different people can have different ideas on what quality is. Therefore we aimed to operationalize the quality of AGPs into clear and measurable topics and criteria. This resulted in a generic quality framework for the Dutch AGPs. In the framework we described which quality dimensions and topics had to be covered with the new instrument, in order to adequately evaluate the quality of care and services, practice management and academic activities in AGPs. In addition, we worked out good practice criteria for all topics of the framework. The framework covers 10 dimensions, 44 topics and includes 129 good practice criteria for AGPs. For the development of the framework we used the ISO 9001:2008 as a gold standard for the management

of quality, and as a guidance.¹⁶ The framework was founded on a generic quality model for Dutch health care organizations, the HKZ-model,¹⁷ which we adapted, and where necessary extended, for general practice and AGPs. We performed a comprehensive review of the Dutch literature on the quality in general practice, to identify the relevant quality topics for each dimension of the framework, and to work out criteria on all topics.

After we developed the framework, and formulated all criteria 28 representatives from the national GP umbrella organisations and university departments of general practice took part in a stakeholders panel, and judged the 129 good practice criteria in the framework. The participants of the panel rated each criterion on a five-point scale (1. not relevant, 2. little relevant, 3. somewhat relevant, 4. relevant, 5. very relevant). The panel found most of our criteria (90%) relevant. This contributed to the content validity of the framework and criteria, and especially for those criteria, for which we found no or little literature support.

STEP 4. CONSTRUCTING THE INSTRUMENT. SELECTING AND FORMULATING ITEMS & CHOICE OF MEASUREMENT METHODS (CHAPTER 5)

In the construction step we aimed to compose a relevant and comprehensive set of questions (items) for each topic of the framework, and focused on the actual development of the new instrument. This step also included the choice of measurement methods.

Using the quality framework as a reference frame, we began with investigating whether we could use and build on an existing evaluation instrument for non-academic general practices: the Visitation Instrument Accreditation (VIA®).¹⁸ The VIA® was introduced in 2005, shortly after we started our research. In 2008, after we developed the quality framework for AGPs, the VIA® was updated. We evaluated to which extent the VIA®(version 2008) covered the three performance areas, ten dimensions and 44 topics of the framework. We found that the VIA®-items could not adequately evaluate the AGPs on all relevant academic performance areas (research, innovation, teaching and education), and also were incomplete for a thorough evaluation of GP care and practice management in AGPs.

Therefore, we decided to build a new instrument, in which the relevant VIA®-items would be integrated where possible. The National Steering Committee of University General Practice Networks (LSUNH), supported our findings and decision. The LSUNH was established in 2003. Its role and goal is to promote the development, evaluation, organization and quality policy of university GP networks and AGPs. In 2005 the Interfaculty Council for GP (IOH) and NHG acknowledged LSUNH as the national IOH-working group for academic networks and AGPs.

Our new instrument, the Academic General Practice Quality Instrument (AGPQI), is constructed in a modular way. By supplementing the VIA®-items with other instruments' items and newly developed items we managed to cover all three performance areas, all 10 dimensions and all 44 topics of the quality framework for AGPs. The new instrument includes in total 637 questions (items): 334 items for evaluating

GP care and services, 217 items for evaluating practice management, and 86 items for evaluating the academic activities in research, innovation, teaching and education. To select and develop the items for the new instrument, we used information from literature searches, and consulted experts and stakeholders. We constructed the instrument in line with the framework. In this way, the content of the instrument and its correspondence with and coverage of the content of framework can easily be compared and evaluated by those who are interested in using the instrument. This information is relevant to assess the content validity of the instrument.¹⁵

Most items in the new instrument can be collected through questionnaires, which can be completed by the GP(s) or practice manager in AGPs; 82 items have to be generated from the GP information system. These items involve: record keeping; contact and consultation details; and clinical performance items. This leaves 555 items to be answered by respondents in the AGPs through (newly developed) questionnaires.

STEP 5. PILOT TESTING (CHAPTER 6)

The new measurement instrument has to be acceptable for the target population.¹⁵ Therefore, as a final step in the development of the instrument, we conducted a pilot study. In this pilot study we wanted to test the feasibility of newly developed questionnaires for the data collection of the 555 questionnaire items in the instrument. With feasibility we refer to the relevance and completeness of the

items in the questionnaires, the difficulty to fill out the questionnaires and the required time by respondents. A representative sample of 10 Academic General Practices (which included solo practices, partnership/group practices, and practices that were located in a primary health care centre), tested the new questionnaires, and provided feedback on their feasibility. We collected this feedback by adding an evaluation form to each questionnaire, which respondents had to fill out immediately after they completed the questionnaire items. We asked respondents 1) to what extent they found the items relevant for the topics addressed in the questionnaire; 2) whether they missed any relevant items; and 3) if so to give examples; 4) how difficult it was to fill out the questionnaire; and 5) how much time they needed to complete the questionnaire. For the scoring of the relevance of the items and the difficulty of the questionnaires we used a five-point scale. The practices completed 18 questionnaires: 12 questionnaires on the performance area “care and services”, four questionnaires on “practice management”, and two questionnaires on the “academic activities”.

For most questionnaires the respondents considered the items relevant and complete for the topics that were covered by the questionnaires, and we received almost no comments on the difficulty of the questionnaires. Most respondents needed between four to four and a half hours to complete all questionnaires.

As the pilot practices did not report major issues with the instrument, and stakeholders considered the results of the pilot satisfactory, we think the instrument can be applied for all AGPs.

DISCUSSION, CHAPTER 7

Our research resulted in the development of a shared definition and a generic quality framework for the Dutch AGPs, which lists all relevant performance areas, dimensions, topics and criteria for the management and evaluation of quality of the Dutch Agps, which can be used as an accreditation or certification scheme. On that basis, we constructed and validated an evaluation instrument to measure quality and output of AGPs. The difference with existing or proposed instruments is that the new instrument covers all relevant academic areas for AGPs and includes both quality and output items for their measurement, so that it can actually measure the quality and contributions of AGPs in research, innovation, teaching and education. And as the university departments of general practice also expect an excellent level in care and practice management in AGPs, we developed and included a comprehensive set of new items so that the instrument can measure whether AGPs are successful in achieving this higher level of quality in care and practice management. We developed our framework and instrument for the university departments of general practice who want to verify whether AGPs meet their expectations for quality. In addition, the NHG, the scientific society of the Dutch GPs, can use our framework and instrument to lift the quality level of the whole professional group of GPs, so there will be a spinoff for non-academic general practices as well.

The (academic) general practices themselves can use both framework and instrument for internal evaluation and gap analysis (to identify gaps in the internal quality system). Our quality framework can

serve as the directive, whereas the new instrument provides practices with a list of relevant quality and evaluation items for the included topics in the framework. By reviewing the criteria in the framework and filling out the questionnaires practices can check for themselves how far they are from or how close they are to the outlined ideal state in the framework.

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