An evaluation of the 18- and 12-month basic postgraduate training programmes in Denmark

Niels Kristian Kjær[1, 2], Dorte Qvesel[3] & Troels Kodal[1, 4]

ABSTRACT

INTRODUCTION: It was decided that the Danish 18-month internship training should be replaced by a 12-month postgraduate training period including six months of employment at a hospital ward and six months at a general practice/hospital ward. This study examines how the physicians from the old and new programmes evaluate their training, and it explores their attitudes towards the new postgraduate training programme.

MATERIAL AND METHODS: We developed a questionnaire by which quantitative and qualitative data were collected. The questionnaire was sent to all physicians following basic postgraduate training in 2009. A total of 1,034 doctors were invited to answer the questionnaire. One quarter of these followed the 12-month programme and three quarters followed the 18-month programme. The response rate was 66%.

RESULTS: Doctors following the new 12-month programme felt less professionally equipped and less ready for continued specialisation than doctors of the 18-month programme and they requested a downward adjustment of the learning objectives associated with the educational positions which follow their basic training.

Physicians do not expect the increased focus on learning and supervision to compensate for the six-month reduction of the training period. Internal medicine should be included in the basic postgraduate training of all physicians. Training in secondary as well as primary health care was requested.

CONCLUSION: The young physicians were reluctant towards the new basic postgraduate training programme.

From 1991 to 2008, basic postgraduate training in Denmark consisted of an 18-month programme. All Danish physicians were required to complete a rotating clinical programme consisting of six months in surgery/orthopaedic surgery, six months in internal medicine and six months in general practice.

The aim of this basic postgraduate training is to obtain an authorization to practice medicine independently and qualifications to pursue further specialization.

The 18-month programme was described in several articles [1-6]. It was shown that the rotating programme generated a number of important basic skills, but lacked training in certain emergency competences [1]. General practice received a positive evaluation [2] (**Figure 1**).

Learning objectives were questioned [3, 4] and assessment was based mostly on general impressions [5]. The curriculum consisted of 118 more or less specific competences. In 2005, the National Board of Health established a working group to develop a new curriculum for basic postgraduate training. It focused on a few general skills and on the transition from medical school to clinical work, a transition which was supported by intense supervision and feedback [3, 6].

The working group drafted a proposal consisting of two models: a 12-month basic postgraduate training programme and an alternative 18-month programme [7]. It was decided that the previous 18-month internship should be replaced by 12 months of basic postgraduate training. The new programme would consist of a rotation comprising six months of employment at a hospital ward and another six months in general practice or at a hospital ward. 80% of all physicians would be trained in general practice. The first six months would include acute medical competences. The final six months would include skills related to continuity in patient care.

The new programme which is based on the new curriculum was introduced in 2008 and was intended to provide more focused training.

In this study, we examine how the physicians from

FIGURE 1

Educational discussion in general practice.

ORIGINAL ARTICLE

1) Postgraduate Education, Medical Faculty, University of Southern Denmark,
2) general practice, Sønderborg,
3) Office of Postgraduate Medical Education, Southern Denmark, and
4) South West Jutland Hospital

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QUALITATIVE THEMES

Collaboration in healthcare

Basic medical competence/quality in education

Identity and career

Social and geographical issues and economy.

both the 18-month (Turnus) and the 12-month programme (KBU) evaluated their training; we also explore their attitudes towards basic postgraduate training.

MATERIAL AND METHODS

This study is a national cross-sectional survey of the attitudes and practices of all physicians who completed either the 18-month training period or the 12-month training period in 2009. A questionnaire was mailed to collect quantitative and qualitative data.

The quantitative questions were from the Postgraduate Hospital Educational Environment Measure (PHEEM) questionnaire, which has been validated in Danish [8]. Qualitative questions were intended to reveal the physicians' attitudes towards basic postgraduate training.

The questionnaire was re-validated by external assessment and its contents as well as its design were revised. We performed a small pilot test in order to explore the comprehensibility level of the questions among the physicians. The applicability of the questions for general practice had previously been tested [9].

We e-mailed 776 doctors who followed the Turnus and 258 who followed the KBU programme.

The validity of the quantitative data was supported by Cronbach's alpha analysis [10], and differences were assessed statistically.

The qualitative data were analyzed using the phenomenological method as described by *Georgi* [10]. The data were triangulated to minimize bias. In order to ensure data generalisability, the qualitative data were compared to our quantitative data and to findings from the literature.

The PHEEM questionnaire and the questionnaire used in this survey are available from the authors.

RESULTS

The response rate was 66%. However, some may not have received the e-mail due to invalid e-mail-addresses, spam filters, etc. The gender and geographical, distribution of responders and non-responders were the same. The Cronbach alpha quotient was 0.88, which confirms the internal consistency of the questionnaire.

QUANTITATIVE DATA

Physicians following the new 12-month programme felt less skilled and less prepared for continued specialisation than the physicians following the 18-month programme. The perceived readiness to continue further specialist training is shown in **Table 1**.

Physicians who followed the 18-month programme found that all three clinical elements were important, particularly internal medicine. The perceived importance of each rotation element is shown in **Table 2**.

There was no difference in career guidance received, and there was no difference in the physicians' certainty about their choice of future specialty, **Table 3**.

QUALITATIVE DATA

The qualitative data was divided into the four themes outlined below.

COLLABORATION IN HEALTHCARE

Both the Turnus and KBU physicians found that insight into the working conditions and organization across departments and in primary as well as secondary healthcare was important to achieve a good level of continuity in patient care. Turnus physicians considered that their training had offered them adequate opportunities to acquire such knowledge, while the KBU doctors were less confident in this regard.

TABLE 1

Readiness to continue specialist training. The share of Turnus and KBU physicians who agree is given in per cent. The answer categories: *I agree* and *I strongly agree,* were merged into *Agree.*

	Agree, n/N (%)	
PHEEM question	**Turnus physicians**	**KBU physicians**
The training in this post makes me feel ready to continue specialist training?	409/494 (83)*	81/151 (54)*
I have enough clinical learning opportunities for my needs?	422/494 (85)*	97/151 (64)*

KBU = new 12-month programme; PHEEM = Postgraduate Hospital Educational Environment Measure; Turnus = previous 18-month programme. *) The differences between Turnus and KBU physicians are statistically significant (χ^2, $p < 0.05$).

TABLE 2

Elements best omitted when the programme changes into a 12-month programme. The Kolmogorov-Smirnov test provides strong evidence against uniformity in the answers ($p < 0.005$).

	n/N (%)
Which of the three clinical elements in Turnus can best be omitted?	
Internal medicine	1/494 (0)
Surgery	103/494 (21)
General practice	37/494 (8)
All three elements are of equal importance	353/494 (71)

BASIC MEDICAL COMPETENCE/QUALITY IN EDUCATION

Both the Turnus and KBU physicians had experienced that having clinical responsibility was important for the development of professional skills. It was considered important to consolidate the university-gained knowledge through clinical work, and they argued the need for clinical training in internal medicine, surgery and general practice. These three areas provide a good foundation for specialized medical training. Several respondents indicated that they had doubts as to the expediency of combining a shortened practical clinical training period during the medical study with a subsequent reduction of basic postgraduate training.

Turnus physicians perceived themselves as being well-equipped for further specialist training. KBU physicians felt less confident and requested a downward adjustment in the expected level of competence for further specialization.

The physicians pointed out that lower expectations were particularly important in connection with the training in internal medicine. They believed that the emergency competences in particular would be difficult to obtain in any other manner than by employment at a medical ward. They also stated, however, that the KBU training did not adequately address follow-up activities and that they lacked active participation in ward rounds as well as work in outpatient clinics. Both Turnus and KBU physicians also argued the case for mandatory training in general practice.

The KBU doctors welcomed the greater focus on general skills, supervision and evaluation of the KBU training. Such training placed considerable demands on the department, but there was no expectation that it could compensate for the educational loss caused by the six-month reduction. It was also claimed that the departments were not prepared to receive KBU physicians. The need for good trainers in the future was stressed.

Some Turnus and KBU physicians had worked simultaneously on the same wards. Both groups experienced various expectations and demands.

The authorization to work independently as a physician after only 12 months was perceived as being problematic, especially by KBU physicians who achieved positions without receiving postgraduate training in internal medicine.

Quotations:

"You don't get a holistic introduction to the medical profession (as KBU doctor, ed.), only a glance, as through a window."(KBU)

"In a surgical ward you need the internal medicine training from the medical ward, and in any hospital departments you need knowledge of the diseases and problems dealt with in general practice." (Turnus)

"I would hate to have missed any of the three elements of my training." (Turnus)

TABLE 3

Career guidance.

PHEEM question	Turnus physicians agree, n/N (%)	ratio value	KBU physicians agree, n/N (%)	ratio value
Have you received proper career guidance?	151/494 (31)[a]	-	49/494 (32)[a]	-
How certain are you about your future choice of specialty using a visual 1-100 scale?	-	71,6[b]	-	71,1

KBU = new 12-month programme; PHEEM = Postgraduate Hospital Educational Environment Measure; Turnus = previous 18-month programme.
a) χ^2 test show no difference between Turnus and KBU physicians.
b) Unpaired t test show no difference between Turnus and KBU physicians.

IDENTITY AND CAREER

KBU physicians felt insecure about their professional identity and expressed that the Turnus programme had provided a more homogeneous professional identity, which had since disappeared. KBU physicians expressed concern about the variation in the 12-month rotating combinations, as this could render the medical profession more heterogeneous and harm them in their future professional career. Several KBU physicians noted that they had received or were planning supplementary clinical training in order to compensate for the shortcomings of the KBU programme.

Quotations:

"I feel that my professional identity has suffered. I was looked at as if I were a student or a mini physician." (KBU)

"The 12-month programme has reduced my competence, the amount of respect that I receive and my status." (KBU)

"The Turnus programme was brilliant! It gave everyone a good clinical basis and we all enjoyed equal access to future specialist training. All this has been thrown away with the KBU programme." (KBU)

Social and geographical issues and economy

Turnus physicians as well as KBU physicians appreciated the advantage of a shorter period of compulsory training as it limited any inconvenience associated with transportation and in some cases the need to stay far away from

home. In this regard, the KBU programme was better for the physicians who had already established a family. The quicker salary rise associated with the KBU programme was also mentioned as a positive factor of this programme.

Quotations:

"You may argue that only 12 months of training is better for those who are far away from their homes, but I would prefer to be guaranteed 18 months of training with internal medicine, surgery and general practice, as was the case under the Turnus programme." (KBU)

"I was happy with the 18 months of training close to my home, but if I had been forced to move – the 12 month of training would have been OK by me." (Turnus)

"I would support an 18-month training period, even if I were to be sent to the other end of the country." (KBU)

DISCUSSION

The overall intention of the reduction from 18 to 12 months introduced with the basic postgraduate programme was to establish a programme focussing on a few, essential competences under strong supervision and in a feedback culture with a view to facilitating the transition from student to physician.

A further, more political purpose of the shorter programme was to ensure that physicians concluded their specialization more rapidly than previously to ensure an increase in number of specialists.

The physicians from the two programmes were asked the same questions, with a focus on their self-assessed levels of competence; they were not asked to compare themselves with the physicians of the other programme. The present study indicates that the reduction to a 12-month training period has major implications for the young physicians.

The learning opportunities available to physicians were also reduced under the new programme. The intended boost of educational focus therefore seems at present not to have compensated for the six-month reduction in time. It is conceivable that departments and general practice were not ready to provide the intended focus for the first group of KBU physicians.

When physicians were asked if they had received suitable career guidance, there was no difference between the answers of the physicians from the two programmes, although career guidance had been given higher priority under the KBU programme. Physicians choose their future speciality on the basis of other factors and independently the programme they follow. This is in accordance with the results from other studies [11, 12].

The doctors who followed the 18-month programme found that none of the three clinical elements were unimportant (Table 2). However, all physicians found that internal medicine should be mandatory despite the fact that the 12-month programme does not provide the same rotation contents for all physicians – which means that several physicians' rotation programme did not comprise internal medicine.

Generally, the physicians found it important to become acquainted with both primary and secondary healthcare in order to understand the patient-diversity and to understand the working conditions of both sectors.

The 12-month programme did not give the KBU physicians confidence with regard to their upcoming specialist training – and they requested a downward adjustment in the learning objectives associated with the educational positions they will be occupying after basic training.

However, one of the most serious complaints about the 12-month programme was the concern about heterogeneous combinations. In the 12-month programme, rotation programme contents vary between specialities.

Physicians worried they would have to compete for their future career on the basis on unequal fundamental prerequisites because of the different contents of the rotation programmes. The modular composition of the programme has not previously been questioned.

Furthermore, the difference in combination possibilities for the 12-month programme leaves physicians feeling that they need to supplement their basic postgraduate basic training before starting their speciality career – which runs contrary to the intentions of the changes introduced.

All data were collected from young physicians who had just finished their basic postgraduate training. We have no data representing senior physicians' points of view. This is a weakness of the study because it deprives us of the opportunity to put statements into perspective by comparing them with the answers of more experienced senior doctors.

Implementation of a new programme of this magnitude will bring uncertainty and criticism. It will therefore be relevant to study the attitudes of the next generation of KBU physicians.

CONCLUSION

The Turnus and KBU physicians questioned the idea of restructuring the basic postgraduate training programme in Denmark. The programme was reduced from 18 month to 12 months, but even so, it aims to strengthen the focus on learning and supervision. KBU physicians felt less professionally prepared and less ready to continue with their specialisation, and they requested a

downward adjustment of the learning objectives associated with the educational positions which they will be occupying after basic training.

The KBU physicians did not expect that the increased focus on learning and supervision could compensate for the six-month reduction of the training period, and the physicians found that internal medicine should be mandatory for all physicians participating in basic postgraduate training. Finally, training in secondary as well as primary health care was requested.

Both Turnus and KBU physicians questioned the expediency of a shift from a homogenous 18-month programme to a more heterogeneous 12-month programme. However, implementation of a new programme of this magnitude will inevitably bring uncertainty and criticism. It would be interesting to study KBU physicians over the next period to investigate whether satisfaction with the new programme changes and whether the intentions of the more focused curriculum combined with feedback and supervision are fully implemented.

CORRESPONDENCE: *Niels Kristian Kjær*, Lindevej 18, 6400 Sønderborg, Denmark. E-mai: niels.kjaer@dadlnet.dk
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