

# The Leadership Mentoring in Nursing Research Program for Postdoctoral Nurses: A Development Paper

Thóra B. Hafsteinsdóttir, PhD, RN<sup>1</sup>, Lisette Schoonhoven, PhD, RN<sup>2</sup>, Jan Hamers, PhD, RN<sup>3</sup>, & Marieke J. Schuurmans, PhD, RN<sup>4</sup>

<sup>1</sup> *Rho Chi at Large*, Senior Researcher, Julius Center for Health Sciences and Primary Care, Nursing Science Department, University Medical Center Utrecht, and Utrecht University, The Netherlands, Utrecht, The Netherlands

<sup>2</sup> *Rho Chi at Large*, Professor in Nursing, Julius Center for Health Sciences and Primary Care, Nursing Science Department, University Medical Center Utrecht, and Utrecht University, Utrecht, The Netherlands

<sup>3</sup> *Rho Chi at Large*, Professor of Nursing, Department of Health Services Research, CAPHRI, Faculty of Health, Medicine and Life Sciences, Maastricht University, Maastricht, The Netherlands

<sup>4</sup> *Rho Chi at Large*, Professor in Nursing, Education Center, University Medical Center Utrecht Academy, University Medical Center Utrecht, Utrecht, The Netherlands

## Key words

Leadership, leadership development, mentoring, nursing research, postdoctoral nurses, professional development, research development

## Correspondence

Dr. Thóra B. Hafsteinsdóttir, Department of Nursing Science Julius Center for Health Sciences and Primary Care, Nursing Science Department, University Medical Center Utrecht, Utrecht University, Heidelberglaan 100, 3584 CX Utrecht, The Netherlands.  
E-mail: t.hafsteinsdottir@umcutrecht.nl

Accepted April 8, 2020

doi:10.1111/jnu.12565

## Abstract

**Purpose:** The Dutch Nursing Science Faculties developed the Leadership Mentoring in Nursing Research program, which aims to increase the cadre of nurse scientists, strengthen nursing research within universities, and improve the career development of postdoctoral nurses. The purpose of this article was to describe the development of the leadership and mentoring program to foster its replication and to present a formative program evaluation.

**Design:** The leadership mentoring program was developed using a three-step procedure: a systematic review of the literature on successful leadership programs was conducted; theoretical underpinnings were identified and input; and feedback was solicited from national and international experts and changes made, resulting in the final program, which was executed from February 2016-2018.

**Findings:** A 2-year leadership and mentoring program for postdoctoral nurses working in research was developed and executed. Ten fellows completed the program and worked on their leadership development, developed their own research programs, and established research collaborations. Formative evaluations showed that the fellows highly valued the program sessions. We have learned several key lessons on how to structure, implement, and evaluate the leadership and mentoring program.

**Conclusions:** Through the leadership and mentoring program, the fellows are immersed in concerted leadership development focusing on the academic leadership role. Formative evaluations showed that the program was valued by the fellows and that several key lessons were learned.

**Clinical Relevance:** Through the leadership and mentoring program, 10 postdoctoral nurses strengthened their leadership in research and will further develop their role in healthcare research, clinical practice, and education.

Postdoctoral nurses have an important role in conducting research, teaching, and translating evidence into clinical practice (Dreyfurest et al., 2016). Studies have shown that postdoctoral nurses are confronted with a heavy teaching workload, limited time for research, complex tripartite roles, low job satisfaction, poor work-life balance, high competition for funding

(Al-Nawafleh, Zeiliani, & Evans, 2013; de Lange, Kars, Poslawsky, Schuurmans, & Hafsteinsdóttir, 2019; Rickard et al., 2011), and limited opportunities to develop sustainable research careers due to lack of academic positions and infrastructure for nursing research (Ali Zeilani, Al-Nawafleh, A.H., & Evans, 2011; de Lange et al., 2019; Hafsteinsdóttir et al., 2017; Heinrich, 2005;

Richards, Hanssen, & Borglin, 2018). The recognition of these complex organizational contexts and roles demand strong leadership and mentoring competencies (Cummings, MacGregor, et al., 2010; Cummings, Midodzi, Wong, & Estabrooks, 2010). At the same time, various reports identified the lack of leadership of nurses as the main challenge facing nursing and needing immediate action (All-Party Parliamentary Group on Global Health [APPG], 2016; Global Advisory Panel on the Future of Nursing & Midwifery [GAPFON], 2017; Institute of Medicine, 2011; World Health Organization, 2016, 2017).

Leadership encompasses influencing others to accomplish common goals and is a complex and multifaceted process involving providing support, motivation, coordination, and resources to enable individuals and teams to achieve collective objectives (Davidson, Elliott, D., & Daly, 2006; Wong & Cummings, 2007). Developing strong leadership is one of the main recommendations of the recent Nursing Now campaign (APPG, 2016) and GAPFON (2017), which calls for experienced nurse leaders needed in all arenas of health care to ensure a clear nursing perspective included in global healthcare policy and decision-making (APPG, 2016). In order to take on leadership roles, nurses need to develop their leadership skills so they can strengthen their role in healthcare reform, and bring about change to meet the needs of the people they serve. Leadership was identified as an important factor in influencing nurses to use research evidence in clinical practice to improve quality of care and patient outcomes (Duygulu & Kublay, 2011; Gifford et al., 2014) and was associated with improved patient outcomes, working environments, and financial performance of healthcare organizations (Cummings, MacGregor, et al., 2010; Wong, Cummings, & Ducharme, 2013). A recent systematic review found robust evidence that relational leadership styles, such as transformational and authentic leadership styles, are associated with significantly improved outcomes for the nursing workforce and their work environments (Cummings et al. 2018). Postdoctoral nurses need to develop academic leadership, comprising competencies in leadership, management, finances, budget, politics, policies, and accreditation requirements within nursing (Glasgow, Weinstock, Lachman, Suplee, & Dreher, 2009). Mentoring was found to be important in supporting the leadership development of postdoctoral nurses working in research (Hafsteinsdóttir, Van der Zwaag, & Schuurmans, 2017).

Mentorship has been described as a relationship between two people, with the mentor being the more senior person interested in developing the skills of the mentee (Grossman, 2013). A mentor is someone

who builds a relationship with and supports the professional and personal development of another by sharing his or her experiences, influence, or expertise (Zellers, Howard, & Barcic, 2008). Mentoring was defined as a transactional process transmitting information, advice, support, and expertise from an experienced to a less-experienced individual (Bowen, 1985). Mentoring relationships should be both mutually agreed upon (Berk et al., 2005) and tailored to the expertise of the mentor and to the needs of the mentee. Mentoring includes role modelling, professional development, career enhancement, building and maintaining a professional network, increasing competence and self-esteem and providing emotional and psychological support (Berk, Berg, Mortimer, Walton-Moss, & Yeo, 2005).

Although mentoring has a long tradition among business leaders, there has been a growing attention for the importance of mentoring among faculty and nurses working in academia. In many countries—especially the United States—mentoring is recognized as an essential tool in academia to mentor the new generation of nurse scientists. There is a growing evidence for the impact of mentoring on various outcomes. Mentoring stimulates the rapid growth and productivity of nursing faculty and is considered an important element in solving the nursing faculty shortage (American Association of Colleges of Nursing, 2016). Mentoring improved faculty socialization (McDonald, Mohan, Jackson, Vickers, & Wilkes, 2010), enhanced faculty role development, decreased faculty stress, and supported recruitment and retention (Sawatzky & Enns, 2009). A peer mentoring program for early academic nurses including postdoctoral and predoctoral gerontological nurses was found to be valued by both mentors and mentees in helping mentees further develop their careers and networks and providing mentors with supported mentorship experience (Brody et al., 2016). Earlier work on underrepresentation of women in science, technology, engineering, and mathematics demonstrated that mentoring was related to increased academic productivity, among other outcomes (Clark, Dyar, Maung, & London, 2016). A recent qualitative study exploring the experiences of Dutch postdoctoral nurses working in research identified the need for the development of supportive leadership and mentoring programs for postdoctoral nurses to provide optimal evidence-based and high-quality care for patients (de Lange et al., 2019). However, the aforementioned studies were generally limited to the countries of North America, with only one of the studies conducted in the Netherlands, which may indicate a more limited attention for the importance of leadership and

mentoring in other countries and continents. Based on this background, the Dutch Nursing Science Faculties developed the Leadership Mentoring in Nursing Research program, aimed at increasing the cadre of nurse scientists, strengthening nursing research within nursing faculties, and improving the research productivity and career development of postdoctoral nurses. The aim of this article was to describe the development of the Leadership Mentoring in Nursing Research program for postdoctoral nurses working in research to foster its replication and to present a formative program evaluation.

## Development of the Leadership Mentoring in Nursing Research Program

Three guiding principles were used when developing the leadership and mentoring program. First, it was determined to be important to develop a program based on the evidence identified from the literature and earlier successful leadership and mentoring programs. Second, it was determined to be important to identify and decide on theoretical underpinnings of the program. Third, to ensure that the program would fulfill the intended need, input from key stakeholders was essential to establish the program's scope, format, and operations.

### Identifying the Evidence

We identified the evidence from systematic reviews on the impact of leadership and mentoring (Cummings, MacGregor, et al., 2010; Cummings, Midodzi, et al., 2010; Cummings et al., 2018; Hafsteinsdóttir et al., 2017). Earlier systematic reviews reported that transformational leadership styles that focused on people and relationships were associated with higher nurse job satisfaction and generally improved outcomes for the nursing workforce, work environments, and the productivity and effectiveness of healthcare organizations (Cummings, MacGregor, et al., 2010; Cummings, Midodzi, et al., 2010; Cummings et al., 2018). Our systematic review showed that postdoctoral nurses experienced leadership and mentoring as essential in supporting ongoing research activity and that mentoring positively influenced research productivity, research career development, and leadership competencies, as well as postdoctoral nurses' health and well-being, staff relationships, work culture, and collaboration (Hafsteinsdóttir et al., 2017). A blueprint of the program was developed based on the findings of the aforementioned reviews, including earlier successful leadership and mentoring programs identified, some

of which focused on postdoctoral nurses working in research (Coffman, Goodman, Thomas, & Roberson, 2013; Franklin et al., 2011; Gennaro, Deatric, Dobal, Jemmott, & Ball, 2007; Hadidi, Lindquist, & Buckwalter, 2013; Jacob & Sánchez, 2010).

### Theoretical Underpinnings

Leadership was defined as a process whereby an individual influences a group of individuals to achieve a common goal and is seen as a process entailing influence, occurring in a group setting, and involving achieving goals that reflect a common vision (Northouse, 2004). This definition is in line with transformational leadership (Bass & Avolio, 1993), the theoretical underpinnings of the leadership and mentoring program. Transformational leadership is associated with improved patient outcomes, working environments, and financial performance of healthcare organizations (Cummings, MacGregor, et al., 2010[JC8]; Cummings et al., 2018; Wong et al., 2013), highlighting the importance of transformational leadership in creating work environments that support professional nursing practice. Building further on transformational leadership, Kouzes and Posner (2013) developed the model of exemplary leadership that includes the five following leadership practices: model the way, inspire a shared vision, challenge the process, enable others to act, and encourage the heart. To monitor the fellows' leadership development, we used the Leadership Practices Inventory (LPI), a 360-degree assessment including self-assessment (LPI-SA) and an observer-assessment (LPI-OA), measuring the frequency of 30 leadership behaviors on a 10-point Likert scale (Kouzes & Posner, 2013).

### Stakeholder Input

We sought input on the development of the leadership and mentoring program from four distinct stakeholder groups: (a) eight national senior experts who were senior faculty and professors in nursing (B.v.M., A.F., J.H., P.R., B.B., L.S., W.v.S.R., A.v.S.); (b) four international senior experts, professors in nursing from other countries, who also were representatives from the partnering organizations European Academy of Nursing Science (EANS) (G.M., T.v.A.) and Sigma Theta Tau International (K.M., B.M.); (c) two experts in leadership who had experience in conducting leadership programs (J.G., H.G.); and (d) six junior experts, including four-early stage postdoctoral researchers (who received a PhD in under 5 years) (N.B., M.B., A.v.d.H., R.E.) and two doctoral students (S.W., M.v.D.). A blueprint of the program in development was sent to

the stakeholders in two distinct rounds, where they were asked to respond to questions like: How can this leadership and mentoring program support postdoctoral nurses in their leadership and professional development in research? Do you think that the program covers the core elements needed to support postdoctoral nurses in their leadership and professional development in research? Do you think there are content areas missing? Do you have additional comments or questions? Also, two distinct meetings were held with the national stakeholders and the junior experts, where the program was presented and input given. A wide range of input and advice was received during the stakeholder rounds and meetings. These included, for example, adding some elements, like “meet the expert sessions” into the program, and suggesting topics to be handled, like “how to write a grant proposal” or “international collaboration in research,” among others. Based on this, the blueprint of the program was adapted, resulting in the final program.

### **The Leadership Mentoring in Nursing Research Program**

In the Leadership Mentoring in Nursing Research program, the following important aspects were identified: type of program; components; mentoring; leadership assessment and leadership development plan; content areas; time commitment and time frame; collaborative partners; inclusion criteria; and selection of the fellows.

#### **Type of Program**

The leadership and mentoring program offers a 2-year program through which postdoctoral nurse fellows enhance their leadership and professional development and extend their knowledge in their research areas by means of conducting successful interdisciplinary research projects, developing research programs, and establishing new national and international networks. Thereby, the program aims to increase the cadre of nurse scientists, strengthen nursing research within nursing faculties, and improve research productivity and career development of postdoctoral nurses.

#### **Components**

The program includes five 2-day workshops and ten 1-day face-to-face meetings, where fellows come together and participate in education, training, and intervision sessions on their own leadership and

professional development, focusing on research and the development of successful research programs, and various other areas. As such, the program focuses both on training in a group as well as individualized self-study, in line with earlier programs (Franklin et al., 2011; Gennaro et al., 2007).

#### **Mentoring**

The fellow identifies two senior faculty members to serve as mentors—a leadership nursing mentor and a research mentor. The mentor should be (a) knowledgeable, supportive, and willing to invest time and expertise in the fellow’s leadership and professional development; (b) generous, resourceful, share his or her own network, and support the fellow with navigating the organizational, political structure, and culture of organizations; (c) open to new ideas and willing to take risks; and (d) show effective communication skills, be able to listen, provide constructive, critical feedback and dialogue, and be able to challenge the fellow in his work. In the program we emphasized the importance to reach out to potential mentors from abroad who did research on the fellow’s area of expertise; this would provide opportunities for research visits, relationship building, and collaborations (Coffman et al., 2013; Hafsteinsdóttir et al., 2017). Also, having mentors from a variety of disciplines like public health, medicine, or economics was emphasized. Experts from other disciplines can offer new perspectives of relevant methods and facilitate interdisciplinary research.

#### **Leadership Assessment and Leadership Development Plan**

To identify and monitor the level of leadership, baseline assessments of leadership practices using the LPI (Kouzes & Posner, 2013) are conducted of the fellows at the start of the program, after 1 year, and at the end of the program (after 2 years). The baseline assessment is used to identify their leadership and professional development areas of improvement. The fellows work with the leadership development plan together with their two mentors, who provide support and pose critical questions.

#### **Content Areas**

The program focuses on leadership and professional development of postdoctoral nurses working in research. Other content areas include the development of their own research program, (inter)national research collaboration, and national/international competitive grant

writing and training in communication, negotiation, media training, and work and life balance, among other content areas (Coffman et al., 2013; Gennaro et al., 2007; Hadidi et al., 2013; Hafsteinsdóttir et al., 2017).

### Time Commitment and Time Frame

The fellow commits to attend the four 2-day workshops and ten 1-day meetings and to work in the program and is supported by his or her own institute (Coffman et al., 2013; Franklin et al., 2011). The program has a 2-year time frame, in line with earlier programs (Gennaro et al., 2007; Hadidi et al., 2013).

### Collaborative Partners

To facilitate collaboration and to secure sustainability of the program, collaboration was sought with the Dutch Nursing Association, EANS, and Sigma Theta Tau International, in line with earlier programs (Franklin et al., 2011).

### Inclusion Criteria

To be eligible, the applicant must be a registered nurse with a PhD or a junior faculty member, working in research, with no more than 5 years of post-doctoral experience at the start of the program in at least a 0,75 full-time equivalent (75%) academic position in a nursing science faculty and must provide a letter of recommendation from a professor of nursing or a dean. The applicant is committed to work on the program for 2 years and to provide evidence of the supervisor's (home institute's) support. The institute where the applicant works supports the application, enabling the applicant to follow the program, and each faculty can have no more than two active fellows in the program. The applicant commits to visit a research institute abroad for at least 1 week of the fellowship. The applicant identifies two mentors to provide mentoring, and the mentors receive financial compensation for the mentoring provided.

### Selection of Fellows

Applicants need to provide the following documents: (a) application form written in English; (b) curriculum vitae; (c) the subject and aim of the research program; (d) knowledge utilization; (e) possible impact of following the program (on their own development); and (f) a letter of recommendation from a professor or dean of nursing or other faculty. Applications are

reviewed by a National Advisory Committee (NAC), who are professors or deans from nursing or health science faculties and from nursing faculties in other countries. The NAC also includes a board member of the Dutch Nursing Association (Coffman et al., 2013). The NAC reviews the applications against the following preset criteria: (a) the scientific quality of the researcher; (b) quality innovative character and academic impact of the research conducted by the applicant; and (c) knowledge utilization.

### Execution and Program Evaluation

The leadership and mentoring program was run from February 2016 to February 2018. Twelve fellows started with the program, including nine women and three men, ranging in age from 30 years to 54 years. However, two fellows stopped after the first year—one due to a different career choice and the other due to illness. Most fellows combined their work in research with teaching commitment, clinical practice, or management. Twelve mentoring triads were established. Three fellows had both mentors from the Netherlands, one fellow had both mentors from abroad, and the remaining eight fellows had one mentor from the Netherlands and one from abroad. Upon finishing the program, the fellows showed strong leadership and professional development, and many had made substantial advancement in their academic career; some were appointed to associate professorships. They also showed improvement in developing their own research programs and (inter)national grant funding. All fellows went abroad to visit international research experts and established international research networks across different countries.

The formative evaluations, conducted after each 2-day workshop and 1-day meeting, were used to tailor the program to the fellows' needs. The fellows rated elements of the program on a scale ranging from 1 (*not valuable*) to 5 (*very valuable*; Table 1). The fellows were highly satisfied with all program sessions. The 2-day workshops and 1-day meetings were valued, mean ratings of 4.7 and 4.3, respectively. The participants appreciated being able to step out of their daily busy schedules to work on their leadership and professional development for 2 consecutive days and not be disturbed by other errands. Both workshops and meetings included "meet the expert sessions," which were valued, with a mean rating of 4.4. The personal leadership sessions, which included reflective discussions about their own challenges and successes in their own leadership development were valued, with a mean rating of 4.1. The fellows appreciated these sessions and the



**Table 1.** Formative Evaluations of the Leadership and Mentoring Program

Evaluation questions	Ratings, mean score (range*)	Quotes
Workshops: How do you rate the overall value of the 2-day workshops?	4.7 (4.4–4.9)	“All the content is very good, all the topics are good and suitable for our own personal and leadership development, was very helpful and good.” “We have received a lot of ‘reading material’ afterwards, I also like to read in advance on the subject we are dealing with, so I can learn more during the workshop.”
Meetings: How do you rate the overall value of the 1-day meetings?	4.3 (4.1–4.6)	“Every time I really enjoyed the general one-day meetings and it was great atmosphere in the group.” “Strategy, discussion, homework assignment social map also good time and flexibility for adapting the content of the meeting.” “Reflection on your own development plan, through openness within the group to discuss your personal ‘limitations and areas of improvement in own development.’”
How do you rate the value of the “meet the expert sessions”?	4.4 (3.4–5.3)	“Very special to hear the professor discuss his career. I found this a very honest and inspiring story in which he also outlined how complicated it is to operate strategically within a complex environment.” “What great speakers again! I found it very nice that the program was very interactive. Very inspiring speakers. Bridge between two experts who talked about different but related topics, very strong.”
How do you rate the value of the “personal leadership sessions”?	4.1 (3.8–4.7)	“I found special sessions about personal leadership because we were part of the personal search of those who presented. The recognition was great and that helps me in my own development.” “I found the leadership session very valuable. The accompanying assignment, to develop a sociogram, gave me good insight into how I am moving between the various stakeholders.”
How do you rate the value of the “research program sessions”?	4.2 (4.0–4.4)	“Very valuable to discuss the research lines in the whole group, much more valuable than splitting up into small groups.” “Very valuable presentation on the two research proposals and nice link the both of them. Again it was a great day!”
How do you rate the value of the “workshops on skills”?	4.5 (4.2–4.8)	“The value of the audience-oriented presentation training. I especially liked the vulnerability that we dared to share with each other of great value. But it’s okay to see how the training has made such a positive difference in each individual way in promoting our individual stories, very powerful.” “The workshops on personal branding and media training were great! Also, to train the elevator-pitch and the pitch for video message.”
How do you value the accommodation?	4.6 (4.0–5.0)	

Note. Ratings are scored from 1 to 5.

\*Range 1–5, where 1 means “lowest value” and 5 means “highest value”.

safe environment where the discussions took place. The research program sessions, where fellows presented their own research programs, were valued, with a mean score of 4.1. The skills workshops were valued, with a mean score of 4.5. The fellows appreciated these sessions as great fun, but were also serious, as noted by some fellows. Also appreciated was the accommodation, which was valued, with a mean rating of 4.6. The venue was carefully chosen and had excellent facilities, which was important, as the fellows noted they felt valued and appreciated. Besides continuous formal evaluations of the Leadership Mentoring in Nursing Research program, a mixed-methods study is being conducted to evaluate the program outcomes as well as experiences of postdoctoral fellows following the program.

## Discussion

In this article we describe the development of the leadership and mentoring program for postdoctoral nurses working in research to foster its replication and to present a formative program evaluation. In the development we used the following three-step procedure: first, a systematic review of the literature on successful leadership and mentoring programs was conducted, and important components identified; second, theoretical underpinnings were identified and decided upon; and third, an input was solicited on the program from national and international experts and stakeholders, and changes were made, resulting in the final program.

The Leadership Mentoring in Nursing Research program is to our knowledge the first national program

in Europe through which postdoctoral nursing fellows follow intensive leadership and mentoring trajectories in this area. The program is tailored to the needs of the individual fellow while focusing on the group, as leadership activities are embedded in a peer process. Based on the formative and informal evaluations, the fellows showed strong leadership, and many had made substantial advancement in their academic career and some were appointed to associate professorships. The fellows showed improvement in developing their own research programs and competitive international grant funding. The program further enabled the fellows to establish international research collaborations by visiting research centers abroad. All the fellows went abroad to visit international research experts and established international research networks across different countries in Europe and beyond. Also, the fellows learned about the importance of international professional organizations like EANS and Sigma Theta Tau International for their professional development and international network, and through these organizations they were able to connect with other European and international postdoctoral fellows and establish international relationships and collaborations.

### Lessons Learned

The formative and informal evaluations of the leadership mentoring program noted some key lessons learned that need to be addressed to improve the overall quality of the program.

**Informal networking.** One of the key lessons for improvement was allowing more time for informal networking and discussion during the workshops and meetings, since some parts of the program meetings were too fully scheduled, leaving too little space for informal discussion. The program sessions were adapted to include more time for informal networking and discussion.

**Time constraint.** The evaluations showed that some mentors had a very busy schedule, making it difficult for the mentees to make appointments. Indeed, the mentors were all professors with tight schedules. Despite the fact that mentoring is seen by many as a part of scholarly activity, this is viewed differently in many countries. Serving as a mentor requires high levels of commitment. Although in our program the time for mentoring was financially compensated to strengthen the commitment of most mentors participating, it still was difficult to plan meetings with some mentors. The literature has described the importance of time commitment and that research

mentors generally are senior faculty with heavy workloads who need to fit mentoring into their complex work schedules, which is challenging (Bryant et al., 2015; Clark, Jennings, & Carter, 2020).

**Interactive sessions.** Although the meet the expert sessions were organized as interactive sessions where the expert had discussions with the fellows, and were highly valued by the fellows, some sessions were not interactive enough. The sessions needed to be engaging and the fellows found it important to be able to pose questions and discuss. The most valued sessions were those in which experts told about their own development and talked openly about their own vulnerability, struggles, and failures that they were able to overcome.

**Home assignments.** Another key lesson identified was the fact that we did not provide home assignments before workshops and meetings. The fellows noted, however, that the efficiency of workshops and meetings could be improved by providing information, assignments, and papers before the meetings so that they could prepare.

**Unforeseen life events.** Although all the fellows were highly motivated and committed to participate in the program, unforeseen life events may be challenging. The two participants who dropped out of the program did so due to unforeseen circumstances—one due to illness and the other due to a different career choice. Indeed, reflecting deeply on the choices we make may lead to different career choices than we expect. Life circumstances and events are often unforeseen.

These were among the key lessons from our first cohort regarding the content and structure of the program. The program is structured for the leadership and professional development of postdoctoral nurses working in research on a national level, but the lessons learned may equally apply for leadership programs for postdoctoral nurses in other settings or countries. Interestingly, as noted earlier, the leadership and mentoring programs identified in the literature were mainly from North America, which may indicate a pressing need for leadership and mentoring programs in Europe and other regions of the world.

Among the highly valued aspects of the program were the large variety of (inter)national nurses and other healthcare leaders who visited and discussed their own leadership and career development, as well as the development of nursing science in their own country and exchanging ideas. Also valued were the sessions in which the fellows shared real-life experiences,

challenges, and successes. Deeply reflecting on their own behavior, situations, and contexts, and recognizing experiences and challenges help fellows to develop new insights needed to take further steps in their own development. The literature has emphasized the importance of providing leadership support to junior researchers through exposure to multiple experienced researchers to develop strong research focus throughout their academic careers (Franklin et al., 2011; Coffman et al., 2013).

It is important to note that the mentoring component of the program was among the key factors influencing the fellows throughout the program. The availability of excellent nursing and interdisciplinary scientists to serve as mentors needs to be emphasized. Having two mentors, many from abroad, who provided advice on activities as well as how the fellow grows and develops was found to be extremely helpful. The fellow established relationships with the mentors and visited them, which has in some cases led to (inter) national research collaborations. In line with this, the literature has emphasized the importance of intentional mentorship supporting the transition of nurse fellows into the role of international academic scholars (Coffman et al., 2013; Franklin et al., 2011; Gennaro et al., 2007; Gillespie et al., 2018; Hadidi et al., 2013; Jacob & Sánchez, 2010; Reid Ponte, Hayman, Berry, & Cooley, 2015). Also, there is growing evidence for the positive impact of mentoring on research productivity, research career development, improved leadership competencies, and various other outcomes (Hafsteinsdóttir et al., 2017).

Although the leadership and mentoring program is in its early years, and outcomes of a formal research evaluating the impact of the program are forthcoming, the first evaluations have shown that the program provides the tools and support needed for the postdoctoral nursing fellows to become strong, well-funded researchers and leaders in their fields. However, the infrastructure for nursing research remains fragile, with a lack of academic positions and professorships in many Western countries, and there are limited opportunities for research funding. There is a pressing need for improvements in these areas. Based on this initial success, the second cohort of the leadership and mentoring program started in early 2019. Although, we were able to secure funding for the second leadership and mentoring program, a lack of structural monetary funding for programs like this remains an issue. Although the faculty of the leadership and mentoring program would like to provide this type of experience to as many participants as would like to attend without cost being a barrier, structural funding is needed to

execute such programs to increase the cadre of nurse scientists.

## Conclusions

In this article we described the development of the leadership and mentoring program for postdoctoral nurses working in research to foster its replication and to present a formative program evaluation. The Leadership Mentoring in Nursing Research program aims to increase the cadre of nurse scientists and strengthen nursing research in the Netherlands. Through the program, the fellows are immersed in concerted leadership development focusing on all aspects of the academic leadership role. Program evaluations identified some key lessons learned, such as time needed for informal networks, time constraints, interactive sessions, home assignments, and unforeseen life events. The fellows have already developed a community of advanced senior nurse researchers who form a strong platform as the future generation of Dutch leaders in nursing research and are strongly linked to an international pool of nursing scientist networks. The leadership and mentoring program represents an innovative and promising program to advance nursing in the areas of clinical practice, policy, workforce, education, and research.

## Acknowledgments

The authors acknowledge Prof. B. van Meijel, Professor of Mental Health Nursing at Inholland University; Prof. A. Francke, department of Public and Occupational Health and the Institute of the VU University Medical Center, Amsterdam, and NIVEL, The Netherlands institute for health services research, Utrecht; Prof. P. Roodbol, Professor and chair of Wenckebach Instituut University Medical Center Groningen, Groningen, Prof. T. van Achterberg, University of Leuven, Leuven, Belgium; Prof. B. McCormack, Head of the Division of Nursing, School of Health Sciences, Queen Margaret University, East Lothian, United Kingdom; Prof. K. H. Morin on behalf of Sigma Theta Tau International, who at the time of the study was Professor of Nursing, Director of PhD Program, Associate Editor, Journal of Nursing Education, Director, Center of Nursing Inquiry, Bronson Methodist Hospital, Kalamazoo, Michigan, USA; Prof. G. Meyer on behalf of EANS, who at the time of the study was Vice President of European Academy of Nursing Sciences (EANS), Professor of Nursing, Institute for Health Care and Nursing Studies, Marthin Luther Univesitat Halle Witternberg, Medicinische Faculteit, Halle, Germany; Dr. B. Buurman, Associate Professor at Amsterdam Medical



Center, Amsterdam; Prof. W. van Scholte op Reimer, Associate Professor at University of Amsterdam, Amsterdam; Dr. A. van Staa, Associate Professor, University of Applied Science, Rotterdam and Rotterdam University, Rotterdam; Dr. J. Gouwens, Economist, who has her own company, Buro Talente, and gives workshops and programs on leadership in health care and research, Utrecht; Eng. H. Grunefeld, Senior educational consultant and staff developer of the University Utrecht; Dr. N. Bleijenberg, Assistant Professor at Faculty of Nursing, University Medical Center Utrecht; Dr. M. Brouwer, who at the time of the study was Assistant Professor, Department of Womens Health, University Medical Center Utrecht; Dr. A. van der Hoogen, Assistant Professor, Department of Women's Health, University Medical Center Utrecht; Dr. R. Ettema, Assistant Professor, Care for Older People, Faculty of Health, University of Applied Science, Utrecht; Dr. S. Weldam, who at the time of the study was a PhD student, Division Heart and Lung, University Medical Center Utrecht, Utrecht; and M. van Dijk MSc, PhD student, University of Applied Science, Utrecht, the Netherlands, for their meaningful contribution to the development of the Leadership Mentoring in Nursing Research program. This work was supported by a grant from the Netherlands Organization for Health Research and Development: ZonMw/Grant number 08-80705-98-041.

### Clinical Resources

- Nurse-Lead website for our European leadership and mentoring program: <https://www.nurselead.org/>
- Leadership in Nursing – An interactive online course see: <https://elearning.elevatehealth.eu/orderdirect/nlc/1054>

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