Parallel Paths: A College-Wide Peer Group Mentoring Program

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Abstract — The Kansas State University (K-State) College of Veterinary Medicine (CVM) has created a group peer mentoring program as part of the K-State ADVANCE Project. The Parallel Paths Program is designed to foster the development of junior faculty, sustain the productivity of senior faculty, and create an environment that helps them be successful in their teaching, research, clinical, and service roles. Groups, referred to as Prides, are open to both female and male faculty members. New junior faculty members are invited to join, with senior faculty members serving as organizers and facilitators.

The groups hold monthly dinner meetings to discuss issues and concerns of junior faculty and they have organized faculty development workshops. The dinner and workshop topics have included gender and other diversity issues; aspects of teaching and research, graduate student and resident training; work/life balance; and career advancement. Funds allocated to the program have been used to support faculty development. Outcomes over the last three years have been assessed by reports, surveys, and focus groups. Participants have reported benefits such as increased collegiality; enhanced cross-departmental dialogue; opportunities to learn about other faculty members' research interests; and an improved understanding of the promotion and tenure process. This paper will share insights and lessons learned from this group mentoring program.

Introduction

The Kansas State University ADVANCE Project, funded by the National Science Foundation, includes a variety of initiatives designed to enhance the recruitment, retention and advancement of science, engineering and mathematics (SEM) women faculty members (Montelone & Dyer, 2004). When the proposal was being developed for this grant, each of the four SEM participating colleges (Agriculture, Arts & Sciences, Engineering and Veterinary Medicine) designed programs that addressed issues of particular need for their women faculty.

The College of Veterinary Medicine (CVM) has some unique characteristics related to the composition of its faculty and student body that influenced the design of its initiative. The student body is currently almost 70% female, and the faculty composition is 21% female. The CVM has the highest percentage of women faculty members and women full professors of any of the four participating colleges. However, these women faculty are unevenly distributed among the three departments in the college, and cross-department interactions have been infrequent. Responsibilities of faculty members vary greatly both within and among departments, due to the clinical, diagnostic, instructional, and research missions of the CVM. As a result of the differing appointments that faculty in the CVM have, many faculty members felt isolated at the time the ADVANCE Project began. They were often unaware of the duties of their colleagues and did not fully appreciate the importance of the work accomplished by their peers.

To address these issues, the CVM leadership chose to implement a group mentoring program that involved men and women faculty. Several reports outline the advantages of group mentoring and provide guidance for structuring the groups (Kaye and Jacobsen, 1995; Dansky, 1996; Kaye, 1999). Kaye and Jacobsen (1995) recommend that diversity should be incorporated in the formation of mentoring groups in order "to foster different ways of thinking about careers and success." Thus, the inclusion of both men and women in these groups was considered an important design element. The CVM groups were structured to include three facilitators, one senior faculty member from each department, and 10 to 15 junior faculty members, representing all three departments and the breadth of professional responsibilities in the CVM. The size of the planned groups was larger than traditional mentoring groups, which typically include one facilitator for five to seven protégés (Kaye, 1999), but the facilitator/protégé ratio was similar.

The design was for these groups to meet socially and discuss topics of mutual interest and concern. The goal was to foster communication, enhance collegiality, and develop greater understanding of the various roles CVM faculty members are expected to assume. Dansky (1996) mentions that the most important benefits of participation in group mentoring are the "networking, psychosocial support, and role modeling provided by the group," and this is consistent with what participants in the CVM groups have reported.

We have used a variety of assessments to identify perceptions of CVM faculty who are group members and those who are not, and the impact of the program on the participants. The information gathered from these assessments and the experience of the participants suggests that similar programs could be implemented in other colleges. For example, the K-State College of Engineering has developed a program, K-State Engineering LEA/RN™ that involves small groups of faculty who are engaged in improving teaching and learning (Starrett et al., 1999). The common elements between this program and the CVM program include voluntary faculty participation, regular meeting schedule, facilitation of open communication among faculty, peer coaching, and sharing of information about new teaching and learning strategies. The group mentoring program in the CVM addresses a wider scope of topics, such as professional development activities, balancing career and family, and facilitating collaborative research. Thus, it has the potential to serve as a model for expanding the focus of the interactions within the small groups in the College of Engineering.

The following describes the program that has been developed at K-State and the results and outcomes identified from surveys and focus groups.

Parallel Paths

The group mentoring program established in the CVM is called Parallel Paths. This name was chosen to reflect the fact that faculty members may pursue various paths in the academic world, which may be instructional, research intensive, clinical in focus, or have extensive service components. These paths may not necessarily intersect, but are all important components of the mission of the CVM. Tenured, tenure-track, and term faculty members are eligible to participate.

One model for the program was described at a CVM-wide seminar facilitated by two individuals from the University of Missouri-Columbia (MU), Joe Johnston and Mary Heppner, in February 2004. Drs. Johnston and Heppner were facilitators for an MU program called Colleague Circles

that was designed as an orientation for first-year faculty members. Following this seminar, interested K-State CVM faculty members were invited to attend a half-day retreat to discuss and further develop the structure and components of the K-State program.

Two groups were formed in the spring of 2004, and each was designated as a "Pride." A total of 19 individuals committed to participate during the first year. These groups consisted of three senior faculty facilitators and six or seven junior faculty members. One of the authors of this paper (B. R.R.) is a facilitator in one of the groups. After the first year of the project, the size of each Pride was expanded to include additional junior faculty members. Currently, there are 12 members in each Pride, with 10 women and 14 men participating.

Activities and Events

Monthly meetings

Each group schedules monthly dinner meetings at which the junior faculty interact on an informal basis, discuss issues and concerns with one another, and obtain advice and feedback from the senior faculty facilitators. Topics have included diversity issues; leadership skills; teaching strategies and techniques; assessment of students; learning styles; proposal writing; graduate student and resident training; work/life balance; and promotion and tenure. Discussions at these monthly meetings have led to the creation of other initiatives, such as teaching awards and a professional development seminar series.

Teaching Awards

Parallel Paths participants identified a need to recognize teaching excellence in all four years of the DVM program. They solicited contributions from companies to provide cash awards and plaques to the teaching award recipients. The awardees are selected by a vote of the entire student body. An annual Fall Awards event was created in October 2005 to recognize winners of the new 1st, 2nd, and 3rd year teaching awards. The 4th year award is given at the annual Senior Awards Banquet. The College is committed to continuation of these newly instituted teaching awards, as demonstrated by its purchase of plaques that display the recipients of each award over a 12-year period. Recipients from 2005 and 2006 are acknowledged to date on these plaques, which are prominently displayed near the college administrative offices.

Professional Development Seminar Series

The Parallel Paths program initiated a professional development seminar series featuring speakers from the CVM, other universities, and national funding agencies. Four events were held during academic year 2004-05. These included seminars on promotion and tenure, NIH grantsmanship, and teaching, and a leadership workshop conducted by the Director of the Midwest Center for Nonprofit Leadership. Six events were held during academic year 2005-2006. Topics included presentations on USDA grantsmanship, improved teaching methods, diagnostic learning strategies using case studies, and time management. Attendees included faculty members from the entire CVM as well as from other SEM colleges.

Awards to individual faculty members

Parallel Paths participants were eligible to apply for funds to support individual professional development. These awards supported attendance at professional society and leadership conferences, visiting other research laboratories, student assistance, and other research activities.

Assessment Associated with Parallel Paths Program

The ADVANCE Project engaged the services of the Office of Educational Innovation and Evaluation (OEIE) to provide assessment of the Parallel Paths initiative. This included a work environment survey administered after the groups were established, and focus groups conducted with each of the Prides. These assessment activities and their results are described below.

<u>Work Environment Survey</u>
In Fall 2004, OEIE administered an online survey to address the questions of how CVM faculty perceived their work environment and whether faculty involved in Parallel Paths perceived the environment differently from those who were not involved in Parallel Paths. To accomplish this goal, respondents in both groups were asked to rate ten items related to aspects of their work environment. They were also asked to describe benefits and challenges associated with being faculty members in their departments. The response rate was 43.1% (N=28) for CVM faculty not involved in Parallel Paths and was 68.4% (N=13) for Pride members.

Table 1 shows the level of agreement from respondents to ten statements about working in the CVM. In general, Pride members agreed more strongly with the statements than did non-Pride faculty. The differences were not significant except for the statement "Working in the CVM provides access to the necessary professional resources in my discipline" (F=6.79, p<.05).

Table 1: Average work environment ratings by Pride faculty and other CVM faculty

Statement *Working in the CVM provides...*	Pride Faculty Average Rating[1] (SD)	Other CVM Faculty Average Rating (SD)
a sense of accomplishment.	4.08 (0.64)	3.96 (0.96)
an understanding of my role in the department.	3.85 (1.07)	3.89 (1.22)
necessary resources to support "innovation and excellence in teaching."	3.38 (1.12)	3.07 (1.18)
the type of work environment that encourages me to remain at KSU.	3.46 (1.05)	3.32 (1.36)
the necessary resources to support "innovation and excellence in research/scholarship."	3.31 (1.18)	3.11 (1.32)
an understanding of the promotion/tenure process.	4.08 (1.08)	4.00 (1.12)
access to the necessary professional resources in my discipline.	4.00 (1.00)	3.11 (1.03)
an environment conducive to professional growth.	3.92 (1.04)	3.25 (1.21)
access to a network of colleagues for collaboration.	4.00 (0.71)	3.57 (0.96)
the necessary resources to support "innovation and excellence in CVM services."	3.73 (0.65)	3.30 (1.06)

[1]**Rating Scale:** 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree

All respondents were asked to identify three benefits and three challenges of being a faculty member in their departments, with the responses being disaggregated by Pride membership status and categorized. These responses are shown in Tables 2 and 3. The benefits (Table 2) of being a faculty member in a CVM department were described similarly regardless of Pride

membership status, with collegiality being listed most frequently by all participants. Furthermore, members of both groups cited strong administrators as the second highest ranking benefit of working within the CVM.

Table 2: Benefits of being a faculty member in the CVM

Benefits	Pride Faculty	Other CVM Faculty
Collegiality	12	37
Support of administration	9	7
Research-Adequate facilities, support, and funding	0	6
Development-Opportunities for personal and professional growth	6	2
Teaching-Interactions with veterinary students	3	4

Table 3 provides the categories of responses to the question asking respondents to identify three challenges of being a CVM faculty member. The most common responses of Pride members were a lack of collegiality, inadequate funding and resources, and difficulties with administration. Non-Pride faculty members identified the same three major challenges. However, these respondents felt that administration difficulties were the biggest challenge, followed by funding and collegiality issues.

Table 3: Challenges of being a faculty member in the CVM

Challenges	Pride Faculty	Other CVM Faculty
Lack of collegiality	10	9
Research- limited resources, no infrastructure, improve technology	0	9
Funding needs: research, retaining faculty, graduate stipends	8	10
Administration-poor leadership and vision, recruitment issues	7	16
Time constraints-teaching, writing, research, service	6	7
Development-inadequate opportunities for professional growth	4	7

For the most part, it appears that Pride participants and non-Pride faculty members perceive similar benefits and challenges associated with their work environment. Some items described as "benefits" also were the same items described as "challenges" (e.g., collegiality). It is interesting that non-Pride faculty identified issues related to research as both benefits and challenges, but this aspect of the work environment was not mentioned by Pride participants. Discussion of these issues by the mentoring groups can lead to suggested ways to address them.

To determine the extent to which Parallel Paths participants felt that the program was achieving its stated goals, participants indicted their level of agreement with ten items that described possible outcomes of Pride membership. Table 4 shows the responses. The statements receiving the highest agreement ratings were "Participation in a Pride promotes collegiality" and "Participation in a Pride promotes cross-departmental dialogue among colleagues." Overall, the high level of agreement to the statements suggests that Pride participants perceive Parallel Paths as meeting its goals and objectives.

Table 4: Average Ratings of Parallel Paths Initiative by Pride Members

Statement *Participation in a Pride...*	Average Rating[1] (SD)
promotes collegiality.	4.38 (0.87)
promotes cross-departmental dialogue among colleagues.	4.38 (0.77)
improves access to a network of colleagues.	4.15 (1.14)
improves access to professional resources in my discipline.	3.00 (0.91)
enhances retention of CVM faculty.	3.15 (0.56)
serves as a vehicle to navigate the political climate of a university system.	3.62 (1.12)
will broaden my perspective of the CVM.	4.00 (0.91)
promotes an environment conducive to professional growth.	3.92 (1.04)
provides opportunities to learn about other faculty members' research interests.	4.08 (0.95)
improves understanding of the promotion and tenure process.	4.15 (0.99)

[1]Rating Scale: 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree

The Pride respondents also were asked to answer open-ended questions about the benefits and challenges associated with participating in a Pride, provide suggestions to improve the program, and describe what they hoped to gain from their participation. Collegiality emerged as the leading benefit of participating in a Pride. Respondents indicated that they enjoyed discussions with colleagues and obtaining constructive feedback from other Pride participants. On the other hand, group dynamics and time commitments emerged as the leading challenges associated with Pride participation. Suggestions for improving the program included finding ways to improve meeting attendance, creating smaller groups to improve the quality of discussions, finding ways to encourage new and marginalized group members to speak, and initiating a selection process for assigning members to participate in the groups. Pride members who participated in Parallel Paths wanted to help their college or department by strengthening the department or college, improving faculty retention, and improving faculty communication.

Focus Group Results

OEIE conducted a focus group with the members of one Pride, the High Plains Drifters, in May 2005. At the time the focus group was conducted, this Pride had 13 members, of whom seven (53.8%) were in attendance. A second focus group was conducted in September 2005 with six (40%) of the 15 members of the other Pride, the Purrfect Pride.

The focus group discussions were consistent with the responses provided as part of the work environment survey. In particular, members of both Prides identified similar benefits and challenges as those reported in late 2004. Members noted that some early challenges associated with group dynamics had been addressed.

Following are the questions and a summary of the responses.

- *Question 1: Why did you choose to participate in Parallel Paths?*

Many of the Pride participants indicated that they chose to participate in Parallel Paths in order to interact with other faculty members from across the CVM in a relaxed environment, outside of

professional activities. Several group members reported that they joined a Pride so they could talk about faculty-related issues, especially with individuals from other departments. One member indicated that he or she was asked to join, while others indicated that they joined out of a professional obligation to help junior faculty members. Two respondents stated that the funding to attend professional meetings was an attraction to join Parallel Paths, and others reported that they felt the participation would be important to achieving success.

- *Question 2: Have you found the monthly meetings helpful to your development as a faculty member in your department?*

Many participants described the benefits of the relationships, both personal and professional, that they have developed in the Prides. Members indicated that due to the development of these interpersonal relationships, they felt more comfortable asking questions of their colleagues than they would otherwise. The meetings have become open fora for discussion, have helped participants better understand expectations for promotion and tenure, and have provided a "sounding board" for junior faculty. The outcomes of these discussions have positively impacted the research and teaching of the participants. Senior faculty reported that it was inspiring to work with junior faculty and see their enthusiasm, and that the work accomplished by these groups has helped individual faculty members as well as the college. The groups have established teaching awards and a lecture series and have participated in a structured career planning exercise (Career MAPs). Some of these tasks have been discussed in the college for several years, but were never implemented prior to the Parallel Paths program.

- *Question 3: Have you found the monthly meetings helpful to your research/scholarship productivity in your department?*

Pride members reported a variety of ways in which the meetings have been helpful in terms of professional development. One facilitator reported learning that another group member needed laboratory space for research, and since this facilitator had extra research space available, it was offered to the member to use. Two members indicated they had been provided with guidance on ways to map out and make progress on their career and research agendas. Some group members felt there had not yet been any direct benefit to their research/scholarship productivity, but they had become more aware of possible research collaboration opportunities from group discussions. Another member reported that his or her main focus has been on teaching, but as a result of the monthly meetings, was now thinking about participating in more research/scholarship activity.

- *Question 4: What are your thoughts/opinions about the topics that have been discussed at the monthly meetings?*

Members indicated the topics they wanted to discuss have been addressed at meetings, and they felt comfortable suggesting new discussion topics. Junior faculty reported being comfortable addressing any of the topics during group meetings. Members of one Pride noted that some early meetings needed additional clarity, direction and structure. Some meetings have been more focused on specific topics, while others involved more brainstorming.

- *Question 5: How can participation in Parallel Paths improve work environment satisfaction?*

Participants felt there were several improvements in their work environment resulting from involvement in Parallel Paths. These improvements included enhanced collaboration, being able to discuss ideas with colleagues, being comfortable and making connections with people in the college, and having senior faculty members as advocates to help deal with problems.

- *Question 6: Have you previously participated in a group-mentoring program?*

Several of the Purrfect Pride group members had been involved in previous group-based mentoring programs, although they indicated that the Parallel Paths mentoring experience was more sustained, enjoyable, and less formal and serious than were other programs.

- *Question 7: What challenges, if any, did you expect to encounter as a participant in Parallel Paths? How have these been handled?*

For the most part, participants described challenges that were more related to individual issues, such as scheduling and organization, than to participating in a group. For example, one person noted that it was a challenge to schedule an evening to meet. Another individual reported that it was necessary to organize his or her thoughts before attending the meetings to better remember what to ask or discuss at the meetings. Some members who thought initially that the groups were too big to be productive reported that some goals were accomplished that would not have been if the groups were smaller. One challenge of these groups is that members in the groups have different interests and areas of responsibility (teaching, research, clinical duties), but they have learned to value and respect the contributions that everyone makes to the college.

Discussion

Within the last ten to fifteen years, there has been a growing awareness of the benefits of nurturing junior faculty members as they begin their academic careers. This is a particular issue for women and faculty of color, who generally are excluded from informal networks of peers that typically benefit white male faculty members. As a result, women and faculty of color may experience isolation and do not have access to the types of knowledge that are disseminated through these unofficial channels. Much of the recent literature has focused on the importance of providing formal mentoring to underrepresented groups (Etzkowitz et al., 2000; Gibbons, 1992; Henry et al., 1999; Montelone et al., 2003; Sonnert & Holton, 1995; Trower, 2002).

In the same time period, there also has been a dramatic shift in the demographics of the student body in colleges of veterinary medicine throughout the United States (Shepherd, 2005). Nationally, women comprise approximately 78% of doctor of veterinary medicine (DVM) students. At K-State, the percentage of women in the student DVM population is 69%, but only 28% of CVM faculty members are women, and these women are overrepresented in the lower academic ranks and non-tenure-line positions. Specifically, at K-State, women constitute only 16% of full professors, 16% of associate professors, but 38% of assistant professors and 51% of all non-tenure-line positions in the CVM. Thus, even though there are larger percentages of women faculty members in the K-State CVM than there are in many colleges of engineering, they encounter many of the same issues with regard to becoming acculturated into historically predominately male disciplines.

However, there are unique aspects of the gender climate in the K-State CVM due to the disparity in the student and faculty demographics. Both male and female faculty members face challenges related to gender in working with peers and with students. In designing a mentoring program as part of the ADVANCE proposal, the CVM administrators recognized the value of providing mentoring and guidance for all of their junior faculty members.

The work environment survey was conducted during the first year of the project, not long after the mentoring groups were formed. In general, the survey results suggested that the CVM provides a hospitable working environment for faculty. This was true regardless of whether faculty participated in the Parallel Paths initiative. Pride members and other CVM faculty members described benefits that included collegiality and a supportive administration. Interestingly, respondents from both groups also identified these same items as among the leading challenges of working in the CVM. Obviously, individual perspectives vary.

The survey also showed that Pride members were generally pleased with their participation in the Parallel Paths initiative. They were especially happy with the collegial atmosphere of the program; however, they felt that group dynamics were problematic and provided suggestions to address this particular challenge. For the most part, they felt that participating in the program could improve departmental communication and were pleased with the opportunity to participate because it might improve their department and college.

The two groups have individually pursued a variety of projects that evolved from topics discussed during the monthly dinners and meetings. These projects have included the creation and funding of teaching awards, establishment of a professional development seminar series, and planning for a joint meeting with colleagues at another college of veterinary medicine. Some faculty seem to have been energized by these tangible outcomes; with some Pride members reporting that these accomplishments have provided a sense of purpose for the groups.

The composition of the membership in the two Prides indicates that international faculty are more highly represented in these mentoring groups than they are in the total faculty. Six of eight eligible international faculty are members of the Prides. They may view their participation as a way to become more engaged with their colleagues professionally, as well as a means of gaining information about the community and its activities and services, which may ease their transition to a new culture. Additional assessment of this program will explore this issue further.

Lessons Learned and Recommendations
Faculty with clinical responsibilities are less likely to participate or be retained in the program due to commitments to after-hours patient care. As new faculty members are recruited into the mentoring groups, special attention should be paid to encouraging faculty with clinical appointments to participate. These faculty would benefit from the opportunity to develop research collaborations with faculty in other CVM departments, since they are unlikely to develop independent research programs. Collaborative research with basic scientists is important to fulfill the research expectations necessary for tenure and promotion. This program provides an environment that facilitates relationships that may serve as the foundation for collaboration.

Expansion and Institutionalization
This program has been very successfully received within the CVM at K-State. A similar model could be implemented in other colleges, such as engineering. The CVM dean has pledged to continue this program with internal funds following the conclusion of the ADVANCE grant. We anticipate that this program will generate novel activities and initiatives as new participants are added, which is what we have observed to date. We will continue to assess this initiative to determine its longer term impacts on both individual faculty members and the college as a whole.

Acknowledgment

References

Dansky, K. (1996). The Effect of Group Mentoring on Career Outcomes. *Group & Organization Management*, *21*(1), 5-21.

Etzkowitz, H., Kemelgor, C. & Uzzi, B. (2000) *Athena Unbound: The Advancement of Women in Science and Technology.* Cambridge, UK: Cambridge University Press.

Gibbons, A. (1992). Key issue: mentoring. *Science* 255: 1368.

Henry, J. S., Stockdale, M. S., Hall, M. & Deniston, W. (1999). A formal mentoring program for junior female faculty: description and evaluation. In: L. M. Gangone (Ed.) *Initiatives on Mentoring: Readings from the Journal of NAWE* (pp. 81-89). Washington, DC: NAWE: Advancing Women in Higher Education.

Kaye, B. (1999). Reinventing the mentoring process. *Human Resource Planning 22*.1 (March 1999): 23(2). *Expanded Academic ASAP*. Thomson Gale. Kansas State University Libraries. 5 Jan. 2007 <http://find.galegroup.com/itx/infomark.do?&contentSet=IAC-Documents&type=retrieve&tabID=T002&prodId=EAIM&docId=A54657580&source=gale&srcprod=EAIM&userGroupName=ksu&version=1.0>.

Kaye, B. & Jacobsen, B. (1995). Mentoring: A Group Guide. *Training & Development*, *49*(4), 23-27.

Montelone, B. A., Dyer, R. A. & Takemoto, D. J. (2003). A mentoring program for female and minority faculty members in the sciences and engineering: effectiveness and status after nine years. *Journal of Women and Minorities in Science and Engineering, 9*(3-4), 259-271.

Montelone, B. A. & Dyer, R. A. (2004). ADVANCE Institutional Transformation at Kansas State University. *Proceedings of the 2004 WEPAN National Conference*.

Shepherd, A. (2005). Employment of female and male graduates of US veterinary colleges. *Journal of the American Veterinary Medical Association, 227*, 1246-1248.

Starrett, S., Benna, J., DeVault, J., Gallagher, R., Licklider, B., Meier, R. & Wiersema, J. (1999). Faculty Experiences with K-State Engineering LEA/RN, *Proceedings of the 1999 Frontiers in Education Conference*. Retrieved January 26, 2007 from http://fie.engrng.pitt.edu/fie99/

Trower, C. A. (2002). Women Without Tenure, Part 3: Why They Leave. http://sciencecareers.sciencemag.org/career_development/previous_issues/articles/1470/women_without_tenure_part_3_why_they_leave

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