The Links That Bind: A Review of Professional Networks in the Health Care Industry

Anne M. Walsh
La Salle University

Susan C. Borkowski
La Salle University

As technology and market expansion redefine organizational boundaries, conventional mentoring relationships may become increasingly difficult to forge and maintain as executives rotate through divisions within the corporate structure. Rather than rely upon a primary mentor to provide both career and emotional support within the organizational context, multiple network relationships will increasingly be used to manage career development. While internal firm roles often defined the prototype in mentoring relationships, network relationships appear to transcend traditional hierarchical roles and rely upon an array of internal and external organizational contacts. Networks can be used to attain instrumental goals such as visibility within a particular network or to attain expressive goals or affirmation as a valued group member. Although network structures can be designed to achieve both social and professional goals, this national study of 540 executives in the health industry was designed to assess the role of professional associations within a professional network. Instrumental and expressive factors related to participation in professional networks as well as structural factors that may impede involvement in professional association were also evaluated.

CAREER PATHS IN THE HEALTH INDUSTRY

Career paths in the health industry have shifted as systems consolidate and alliances and partnerships are developed to remain competitive. While formal reporting relationships continue to define many organizational structures, the informal network has evolved as a mechanism to transcend organizational boundaries and manage quasi-organizational transactions. Parise and Casher (2003) define these structures as collaborative networks, which include a web of multilateral alliances that are designed to blend organization synergies through distinct yet complementary resources.

As quasi-organizations are increasingly implemented in the health industry, hierarchical relationships will be supplanted with lateral relationships developed with peers in key strategic business units. These collateral relationships will support not only job related functions but they

will be essential in acquiring corporate information that may not be available within a particular division of the organization. Managing the boundaryless organization will become more of a reality than a conceptual definition for most health care managers who will be dependent upon a variety of internal and external colleagues to meet their performance objectives.

Schein(1996) contends that personal career anchors have evolved in response to these emerging structures. Although hierarchy and formal reporting relationships defined the "organizational" career path for many executives in the past, restructuring has emphasized the need for adaptation and the creation of "internal career" paths which rely upon the acquisition of related skills attained through a series of disparate organizational relationships. Brousseau, et. al.(1996) also believe that the employment contract has changed with both employers and managers supporting the acquisition of new skills through seminars and formal educational programs. New competencies and skills, which fit organizational objectives, are essential to retaining a competitive edge with the health care industry (Broscio and Scherer, 2003). Job security is no longer predicated upon longevity in the organization, but based upon the ability to design the requisite skill set to remain competitive in the market.

Individual preferences toward work and organizational commitments have also influenced the nature of organizational relationships(Schein, 1996). Flexible work schedules, shared jobs, and technology have influenced both workplace relationships and the time that individuals spend with each other within a particular organization
(De Janasz, Sullivan, Whiting, 2003). While many executives remain committed to their profession, many executives are selecting alternate career paths and positions which balance their personal or family roles with their organizational commitments(Gustafson, Murray, and Dwore, 1997). The desire to pursue alternate careers and personal goals was recently echoed by a group of retiring health executives who cited a desire to "look for different challenges" or find "less stressful work environments"(Romano, 2004). Rather than remain on a traditional career path, these executives opted for opportunities that offered challenges and growth in related professional areas. These sentiments are not unique to executives in the health industry, and echo theories on aging and work motivation across industries (Kanfer and Ackerman, 2004).

The digital economy has also transformed traditional interaction and communication patterns in most health care organizations. As Nicholson (1996) observes, the new organization is "connected" in both a literal and figurative sense to an array of business units and external organizations. Transactions within this system are fast and designed to concurrently promote efficiency and coordination between many operating units. The information revolution is less dependent upon interpersonal communication and can operate on an autonomous basis with minimal intervention. Interactions can be processed electronically or supported via interactive technologies that do not necessarily require personal contact between the parties(Cascio, 2000).

Consequently, network relationships in emerging health care systems must be forged on both lateral and hierarchical levels with assorted organizational units that can potentially support the career path of the health care manager. Hill(1991) encourages managers to develop these networks both within the organization as well as with individuals and groups in the external environment. As organizations continue to become flat with fewer executives positions at the top of the pyramid, the external network may play an increasingly significant role in promoting career development.

NETWORK DEVELOPMENT AND STRUCTURE

Kram and Isabella (1985) suggest that most relationships evolve through an incremental process, and describe key phases involved in cultivating peer relationships within an organizational context. Information sharing relationships represent the most basic form of interaction within their model, and are characterized by infrequent contacts which are maintained with a number of individuals within the organization. These encounters promote daily transactions among members, and usually provide minimal feedback or information on organizational events. Exchanges are professional and support organizational transactions; expertise and information on critical organizational goals and events is also shared among members.

In contrast, collegial relationships involve more frequent contact and moderate levels of trust that can promote direct and honest feedback between peers. Communication may focus on job or organizational issues with some disclosure of personal issues. These relationships provide an opportunity to gauge organizational events through the same lens, and may provide a support mechanism to discern advancement opportunities. As these relationships endure over an extended period of time, friendship or special peer relationships often replace collegial relationships. These contacts extend beyond the organization, and are characterized by frequent interaction based on trust and honest discussions of personal and organizational issues.

Ibarra(1995) believes that most managers structure an array of task, career, and social networks which are designed to meet various professional objectives. Task networks may be developed by mangers to access information or resources within the organization while social networks are often predicated upon mutual interests and involve a higher level of trust among members. Career networks may combine instrumental elements such as exchanging job information as well as social elements such as inclusion in professional events. Networks within this model can be mutually exclusive, and may not necessarily progress through a developmental continuum. Although member overlap between discrete networks may exist, these links are often designed to provide multiple networks that can expand the range of professional and social contacts.

While most networks combine structural elements (Brass, 1985; Ibarra, 1993: Ibarra, 1995) as well as a process dimension (Kram and Isabella, 1985), relational links are also critical features of most network relationships. Within the organizational context, Krackhardt and Hanson (1993) believe that these internal networks should transcend typical reporting relationships and rely upon assorted department and unit relationships for advice, information, or social support. Although internal networks can provide access to organizational resources, De Janasz, Sullivan and Whiting (2003) contend that external networks should also be developed concurrently with diverse professional organizations to provide access to complementary resources. These external networks should include hierarchical and lateral contacts that can provide professional expertise or advice on market trends in the industry.

FUNCTIONS OF NETWORK RELATIONSHIPS

Although the range and structure of networks may vary, many of their functions appear to almost parallel those found in traditional mentoring relationships(Higgins & Kram, 2001; Ragins & Cotton, 1999). Instrumental functions related to information exchange, access to resources, as well promotional opportunities have been attributed to involvement in networks.

Heathcote's (1990) study of professional health educators found that information exchange via seminars and periodic conferences were cited as key variables in joining a professional association. Benefits such as multi-discipline collaboration on professional issues as well as the ability to develop new contacts for future opportunities were also mentioned as related considerations in joining these professional groups.

In a study of higher education scholars, task functions also appear as instrumental motives in joining a professional association (Hitchock, et.al 1995). Scholars in this study described their national professional association as their primary resource in finding colleagues who shared similar research interests, and who were available to collaborate on future professional projects. These professional associations provided a mechanism for scholars to work on committees with colleagues and gauge potential research synergies among various members in their professional network. In a related study of business school faculty, Gersick, Bartunek, and Dutton (2000) found that 51 percent of the respondents also relied upon their professional associations to acquire instrumental resources. Professional associations were pivotal to locating members who shared similar research interests, and in expanding the breadth of resources that were available to support specific projects. These studies underscore the significance of external professional networks in promoting collaborative research and extending network relationships within the profession.

Expressive ties, which include various levels of social support or trust, can also be forged via participation in external and internal networks. These functions can include acceptance, guidance, or friendship roles that play a critical role in supporting professional identity as well as preserving professional links within a network (Hill, 1995). In their study of 25 relationships pairs, Kram and Isabella (1985) found that peer relationships can provide many of the same expressive and instrumental functions as mentors, and may exist for a longer duration than mentoring relationships. These relationships also tend to be more reciprocal in nature and involve more dual expectations between the members. As a consequence, information and resource exchange is more bi-lateral than unilateral in nature, and is maintained via a series of instrumental and expressive transactions. Cohen and Bradford (1989) contend that "laws of reciprocity" govern most bi-lateral relationships. Although explicit requests are rare, implicit assumptions play a role in future transactions and maintenance of network relationships.

METHODS

Sample

Although various types of networks may exist, this study was designed primarily to evaluate professional networks**.** Data from a professional association in the health care industry was used to identify 1,680 civilian non-military, employed individuals who were residents of the United States. A self-administered questionnaire was mailed to this population, and a follow-up survey was mailed within a 30-day period resulting in 540 useable questionnaires for a response rate of 32.1 percent.

Table 1 provides a selected demographic analysis of the 540 respondents in the study, which included 315 males and 225 females, who were employed primarily in the acute care sector. Almost 54 percent of the respondents had been with their organization for more than five years, and over 69 percent defined their positions as executive or senior level management. Eighty-nine percent of the respondents had graduate degrees while less than five percent had law, medical or other types of doctoral degrees.

Although 57 percent of the respondents were over age forty, less than 12 percent of the respondents were under age 30 while another 12.9 percent were between 31-35 years of age. Over 75 percent of the respondents were married, and over 69 percent had children while 28 percent of the respondents had no children.

TABLE 1: SELECTED DEMOGRAPHICS OF THE SAMPLE

SAMPLE:	Respondents	540
GENDER	Male	315
	Female	225
AGE	30<	60
	31-35.1.1	70
	36-40.1.1	100
	41-45.1.1	155
	46>	155
DEGREE	BA/BS	34
	Masters	336
	MBA	147
	PhD/MD	23
EMPLOYER	Acute	286
	Ambulatory	49
	Insurance	72
	Other	133
EMPLOYER YEARS	1 or less	79
	1.1 to 5 years	212
	5.1 to 10 years	134
	>than 10 years	115
POSITION	Executive	195
	Senior	179
	Middle Manager	127
	Other	33
	No Response	6
MARITAL	Single	78
	Married	409
	Other	42
	No response	11
CHILDREN	None	152
	One	59
	Two	212
	Three	72
	Four>	32
	No response	13

Measures

Networks can offer both instrumental and expressive functions to members. Since networks may offer many of the same functions as mentoring relationships, selected items from Dreher and Ash's(1990) mentoring scale were used to classify both instrumental and expressive functions. Instrumental functions were classified using discrete resource variables such as advancement, information, and contacts which can be used to enhance visibility or attain tangible resources via network involvement. Expressive functions such as understanding, assistance, and cooperation were used to assess the degree of social support and affirmation provided by the network. Factors were ranked on a five point scale with 5= very important factor and 1= very unimportant factor influencing participation in the professional association. A complete list of both instrumental and expressive functions is described in Table 3 and Table 4.

Networks can fulfill multiple functions for members; however, organizational factors or personal issues may limit participation in a particular network. Van de Ven's (1976) measure of intensity was used to assess network participation since it includes both the size of the resource investment as well as the degree of involvement required to participate in a particular network. Since membership dues represent the primary cost for joining most professional associations, annual dues were used as a proxy measure for the degree of resource investment. Members were also asked about the type of tangible resources such as mentoring, seminars, and other benefits derived from their annual dues.

Likewise, the degree of involvement was measured by assessing the frequency of attendance at meetings sponsored by the professional association. Members were asked about the number of times they participated in meetings sponsored by the professional association on annual basis. Contact and communication between members appears to be critical in developing and retaining network relationships, and Hansen (1999) contends that strong ties encourage higher levels of reciprocity and trust between members in a network. Consequently, respondents were also asked about time constraints or scheduling barriers that may impede participation in the professional association.

The range of members available in a network may also influence a decision to join or participate in a professional association (Collins and Clark, 2003). A diverse network can provide a broad range of contacts and may be more effective than participation in a single professional association. Respondents were asked about the number of professional organizations in which they held a membership, and if they were familiar with others in the professional association.

RESULTS

Although the 540 respondents in the study were employed primarily in the acute care sector, over 70 percent of the respondents belonged to more than one professional organization with 213 men and 171 women reporting professional memberships in associations other than the American College of Health Executives. Sixteen percent of the respondents were involved in state associations, 13.54 percent of respondents were members of the Health Financial Management Association, and over 9 percent of the members belonged to the Medical Group Management Association. Almost 60 percent of the respondents had memberships in non- health industry related networks suggesting involvement in discipline related associations such as the American Marketing Association or activity in regional and community networks.

Since both age and gender may affect network participation, a Kruskal-Wallis analysis was used to assess the impact of these variables upon network participation. Respondents were initially asked to identify specific organizational barriers such as time constraints, membership dues or scheduling conflicts that could potentially affect their decision to participate in a professional organization. Although scheduling and time issues were not significant factors affecting network participation, expensive dues were significant factors for female respondents(.0105, $p<.05$) and also a factor for those under 40 years of age(.0009, $p<.01$). Moreover, those respondents under 40 years of age also indicated that lack of familiarity with other members in the professional association affected their association involvement (.0087<p.01) although no gender differences between men and women were evident (Table 2).

Similar findings affecting the intensity of involvement emerged when respondents were asked about their attendance at meetings of the professional organization. While 26.1 percent of those over age 40 attended professional meetings on a quarterly basis, only 20 percent of those under 40 were involved in quarterly meetings(.0493, $p<.05$). Under 40 respondents did attend the semi-annual meetings of the professional association which suggests that program costs may be limiting more frequent involvement in association events. Decisions to attend professional meetings were not significantly influenced by gender related concerns with both males and females reporting a similar level of network involvement as shown in Table 2.

Age differences were also evident in the benefits provided by the professional organization. Respondents under age 40 were more likely to select mentoring programs as a key benefit (.0378, $p<.05$) provided by their professional association while those over age 40 selected seminars and continuing education programs(.0210, $p<.05$) as key association benefits. Male and female executives did not appear to have a specific preference for various benefits provided by the professional organization, and no significant gender differences emerged in the survey.

TABLE 2: PROFESSIONAL ORGANIZATION CHARACTERISTICS

ATTENDANCE AT MEETINGS OF PROFESSIONAL ORGANIZATIONS:

FREQUENCY	**MALE**	**FEMALE**	**KRUSKAL-WALLIS**
Quarterly or more	21.0%	27.1%	.1981
Semi-annual or less	75.2	68.0	
Do not attend	3.8	4.9	
FREQUENCY	**AGE< 40 YEARS**	**AGE>40 YEARS**	**KRUSKAL-WALLIS**
Quarterly or more	20.0%	26.1%	.0493*
Semi-annual or less	74.4%	70.7%	
Do not attend	5.6%	3.2%	

ISSUES AFFECTING PARTICIPATION IN PROFESSIONAL ORGANIZATIONS

ISSUES	**MALE**	**FEMALE**	**KRUSKAL-WALLIS**
Lack of Time	74.0%	75.6%	.6763
Expensive Dues	45.7%	56.9%	.0105*
Scheduling	41.3%	40.4%	.8476
Unfamiliar Members	30.8%	36.0%	.2049

ISSUES	AGE<40 YEARS	AGE>40 YEARS	KRUSKAL-WALLIS
Lack of Time	75.7%	73.9%	.6394
Expensive Dues	58.7%	44.2%	.0009**
Scheduling	44.8%	38.1%	.1168
Unfamiliar Members	39.1%	28.4%	.0087**

RESOURCES PROVIDED BY PROFESSIONAL ORGANIZATION

RESOURCES	MALE	FEMALE	KRUSKAL-WALLIS
Careeer Information	77.5%	73.3%	.2705
Mentoring Programs	24.8%	28.4%	.3384
Seminars & C. E.	91.8%	90.2%	.5400
RESOURCES	**AGE<40 YEARS**	**AGE>40 YEARS**	**KRUSKAL-WALLIS**
Career Information	75.2%	76.1%	.8071
Mentoring Programs	30.9%	22.9%	.0378*
Seminars & C. E	87.8%	93.6%	.0210*

Respondents were also specifically asked to rate the type of instrumental and expressive functions derived from participation in the professional association. Both advancement (.0290, $p<05$) and access to resources (.0437, $p<.05$) were selected as significant factors for those under age 40 who believed their professional association offered resources that could potentially support career advancement. In contrast, professional associations provided more expressive rather than instrumental support for those over age 40. These executives valued the personal support (.0164, $p<.05$), inclusion (.0126, $p<.05$), and understanding (.0205, $p<.05$) derived through membership in the association. Interestingly, the network also supported the self-concept of these executives (.0026, $p<.01$) and affirmed their role in the profession. Although these respondents (40 years or >) were seasoned executives and not dependent on the network for advancement, it was clear that the network provided a continual source of professional support in a changing health care industry as shown in Table 3.

TABLE 3: FACTORS INFLUENCING NETWORK PARTICIPATION: GENDER

FACTOR	MALE N=315	FEMALE N=225	KRUSKAL-WALLIS
ADVANCEMENT	3.49	3.68	.0371*
RECOGNITION	3.51	3.55	.7586
VISIBILITY	3.78	3.90	.2357
REPUTATION	3.88	3.90	.6760
IMPORTANCE	3.15	3.28	.1335
NETWORK CONTACTS	4.10	4.23	.1125
INCLUSION	3.01	2.98	.8183
PERSONAL SUPPORT	2.86	2.85	.7872
UNDERSTANDING	3.25	3.21	.5265
RESOURCES	2.69	2.95	.0026**
ASSISTANCE	2.84	2.95	.2240
COOPERATION	3.01	3.26	.0069**
INFORMATION	3.99	4.21	.0014**
VISION	3.66	3.94	.0004**

EXCELLENCE	3.92	4.05	.0787
ETHICAL FRAMEWORK	3.86	4.04	.0479*
SELF CONCEPT	3.54	3.58	.8239
CHALLENGE/LEARN	3.92	4.12	.0050**
INVOLVEMENT	3.39	3.42	.5334
GRATITUDE	3.08	3.06	.9904

Factors ranked on a five point scale(1=very unimportant and 5=very important)

*** Significant at alpha(.05)**
**** Significant at alpha(. 01)**

Gender preferences also appear to play a role in the type of instrumental and expressive benefits offered by a professional association. Female executives rated access to information(.0014, p<0.1) access to resources(.0026, p<.01), learning opportunities(.0050, p<.01) and advancement(.0371, p<.05) as key benefits provided by their professional associations. These female executives also believed that their professional association offered a vision for the future(.0004, p<.01) and provided an ethical framework(.0479, p<.05) for decision making at the executive level. Although these functions are primarily instrumental in nature, they also provide a subtle source of professional support when confronted with complex decisions.

TABLE 4: FACTORS INFLUENCING NETWORK PARTICIPATION: AGE

FACTOR	AGE< 40 YEARS	AGE>40 YEARS	KRUSKAL WALLIS
ADVANCEMENT	3.68	3.49	.0290*
RECOGNITION	3.43	3.60	.0243*
VISIBILITY	3.88	3.79	.3823
REPUTATION	3.86	3.90	.4309
IMPORTANCE	3.15	3.24	.2314
NETWORK CONTACTS	4.18	4.14	.9338
INCLUSION	2.89	3.08	.0126*
PERSONAL SUPPORT	2.74	2.94	.0164*
UNDERSTANDING	3.12	3.31	.0205*
RESOURCES	2.91	2.71	.0437*
ASSISTANCE	2.97	2.82	.0566
COOPERATION	3.18	3.07	.2291
INFORMATION	4.13	4.05	.2345
VISION	3.84	3.73	.2245
EXCELLENCE	3.95	3.99	.4786
ETHICAL FRAMEWORK	3.91	3.95	.4102
SELF CONCEPT	2.42	3.65	.0026**
CHALLENGE/LEARN	4.02	3.99	.7509
INVOLVEMENT	3.36	3.43	.5265
GRATITUDE	3.07	3.08	.7217

***Significant at alpha(.05)**
****Significant at alpha(. 01)**

While few differences in expressive functions were evident in the study, female executives did rate cooperative projects or ventures (.0069, p<.01) more highly than the male executives in the study. However, it was not clear if cooperative projects were perceived as a mechanism to meet new members and expand the range of contacts, or if they were valued primarily to support the development of new skills

DISCUSSION

As the structure of the health care industry continues to evolve, it appears that lateral relationships will continue to dominate professional networks. Professional associations appear to be extensively used to expand network relationships with over 70 percent of the executives in the health industry involved in multiple professional associations and civic networks. These networks appear to provide many of the same instrumental and expressive functions as traditional mentoring relationships, and executives are developing a broad array of industry and auxiliary relationships to manage their professional networks.

Although it was not clear if network expansion was designed primarily to forge relationships with executives in related industries or to acquire specific professional expertise, it is evident that executives are developing lateral relationships rather than solely relying upon hierarchical networks. Professional associations may be able to capture some of these trends by expanding professional seminars which appeal to diverse industry segments. Programs which include representatives from various governmental and industry sectors may have a strong appeal for executives who are involved in developing these type of lateral relationships.

At present, many professional associations appear to offer functional programs which are designed to support the instrumental and expressive needs of their diverse segments. Members in the early phase of their careers clearly valued the mentoring benefits provided through a professional association. These programs can provide access to industry resources, and establish enduring ties to an association as new members launch their professional careers. In contrast, members over age 40 valued the camaraderie and educational opportunities provided via their professional association. These relationships provided inclusion in a collegial network of executives who offered support and affirmation for professional decisions.

More importantly, executives over age 40 appeared to genuinely value the expressive benefits inherent in a professional network, and can potentially provide access to information and resources that are clearly valued by those in the early phase of their careers. Cultivating relationships between this two segments may a critical consideration for those associations who wish to retain or expand their existing membership. In particular, many of the respondents (under age 40) indicated that their lack of familiarity with other members of the association affected their level of involvement in the association, and only 20 percent of those members (under age 40) attended meetings on a quarterly basis. Associations that involve younger executives on key committees with current members or which encourage involvement in civic projects which transcend hierarchical relationships may provide a vehicle to expand network relationships for those who are not connected to the informal network.

Similarly, the existing due structure was noted as an impediment for both female members and prospective members under age 40. While many organizations do offer reduced dues, it appears that cost can be a deterrent in joining a professional organization. Implementation of a graduated membership fee structure as well as discounting fees for seminars for new members may increase routine participation and eliminate some of the initial barriers to participation in a professional association. Associations that reduce entry barriers for new members and develop lateral links for members will remain attractive options for a professional network.

REFERENCES

Brass, D. J. (1985). Men's and Women's Networks: A Study of Interaction Patterns and Influence in an Organization. Academy of Management Journal, 28(2): 327-343.

Broscio, M. and Scherer, J. (2003). New Ways of Thinking about Career Success. Journal of Healthcare Management, 48(1): 6-10.

Brousseau, K. R., Driver, M. J. Eneroth, K., Larsson, R. (1996). Career Pandemonium: Realigning Organizations and Individuals. Academy of Management Executive, 10(4): 52-66.

Cascio, W. (2000). Managing a Virtual Workplace. Academy of Management Executive, 14(3): 81-89.

Cohen, A. & Bradford, D.(1989). Influence Without Authority: The Use of Alliances, Reciprocity, and Exchange to Accomplish Work. Organizational Dynamics, 17:5-17.

Collins, J. & Clark, K. (2003). Strategic Human Resource Practices, Top Management Team Social Networks, and Firm Performance: The Role of Human Resource Practices in Creating Organizational Competitive Advantage. Academy of Management Journal, 46(6): 740-751.

De Janasz, S., Sullivan, S., & Whiting, V.(2003). Mentor Networks and Career Success: Lessons for Turbulent Times. Academy of Management Executive, 17(4): 78-90.

Dreher, G. & Ash, R(1990). A Compartive Study of Mentoring Among Men and Women in Managerial, Professional, and Technical Positions. Journal of Applied Psychology, 75(5):539-546.

Gersick, C., Bartunek, J. & Dutton, J. (2000). Learning from Academia: The Importance of Relationships in Professional Life. Academy of Management Journal, 43(6): 1026-1044.

Gustafson, G., Murray, B., Dwore, R.(1997). Hospital Administrator's Career Paths: Which Way to the Top? Health Care Management Review, 22, 82-96.

Hansen, M.(1999). The Search-Transfer Problem: The Role of Weak Ties in Sharing Knowledge across Organizational Subunits. Administrative Science Quarterly, 44:
82-111.

Heathcote, G.(1990). Networking: A Strategy for the Professional Development and Support of Health Educators. Health Education Journal, 49(11): 27-29.

Higgins, M. & Kram, K(2001). Reconceptualizing Mentoring at Work: A Developmental Network Perspective. Academy of Management Review, 26(2): 264-288.

Hill, L.(1991). Beyond the Myth of the Perfect Mentor. Harvard Business School Note, 491-096.

Hitchcock, M. A., Bland, C., Hekelman, F., Blumenthal, M.(1995). Professional Networks: The Influence of Colleagues on the Academic Success of Faculty. Academic Medicine, 70(12): 1108-1110.

Ibarra, H(1993). Personal Networks of Women and Minorities in Management: A Conceptual Framework. Academy of Management Review, 18(1): 56-89.

Ibarra, H.(1995). Managerial Networks. Harvard Business School Note, 495-039.

Kanfer, R. & Ackerman, P.L.(2004). Aging, Adult Development, and Work Motivation. Academy of Management Review, 29(3): 440-458.

Krackhardt, D. & Hanson. J(1993). Informal Networks: The Company behind the Chart. Harvard Business Review, 71(4): 104-111.

Kram, K. & Isabella, L.(1985). Mentoring Alternatives: The Role of Peer Relationships in Career Development. Academy of Management Journal, 28(1): 110-132.

Nemanick, R.(2000). Comparing Formal and Informal Mentors: Does Type Make a Difference? The Academy of Management Executive, 14: 136-138.

Nicholson, N.(1996). Career Systems in Crisis: Change and Opportunity in the Information Age. Academy of Management Executive, 10(4): 40-51.

Parise, S. & Casher, A. (2003). Alliance Portfolios: Designing and Managing Your Network of Business-Partner Relationships. Academy of Management Executive, 17(4): 25-39.

Ragins, B. & Cotton, J.(1999). Mentor function and outcomes: A comparison of men and women in formal and informal mentoring relationships. Journal of Applied Psychology, 84: 529-550.

Romano, M.(2004). Retirement Community. Modern Healthcare, 34(24): 6-7.

Schein,E.(1996). Career Anchors Revisited: Implications for Career Development in the 21st Century. Academy of Management Executive, 10(4): 80-89.