Exploring Early Career Extension Agents' Perceptions of Their Mentors, Best Liked Coworkers, and Organizational Commitment

Amy Harder
University of Florida, amharder@ufl.edu

Lendel K. Narine
University of Florida, lendel.narine@usu.edu

Matt Benge
University of Florida, mattbenge@ufl.edu

Marina Denny
Mississippi State University, mdd269@msstate.edu

Kristi Farner
University of Georgia, kfarner@uga.edu

Follow this and additional works at: https://scholarsjunction.msstate.edu/jhse

Part of the Social and Behavioral Sciences Commons

Exploring Early Career Extension Agents' Perceptions of Their Mentors, Best Liked Coworkers, and Organizational Commitment

Amy Harder
University of Florida

Lendel K. Narine
Utah State University Extension

Matt Benge
University of Florida

Marina Denny
Mississippi State University

Kristi Farner
University of Georgia

Forming positive relationships is an important part of the onboarding process for new Extension professionals. Often, formal mentors are assigned to new employees, but they also develop relationships with other colleagues in the organization. Past studies have found quality relationships with mentors and coworkers can positively influence job outcomes such as employee turnover, organizational performance, and organizational commitment. This study examined the perceptions that early career Extension agents in Florida, Georgia, and Mississippi had of their formal mentors and best-liked coworkers using a causal-comparative design and online survey. Results showed early career Extension agents tended to have marginally positive views of their relationships with their formal mentors but perceived high-quality relationships with their coworkers. Neither type of relationship was significantly related to organizational commitment, but increased frequency of contact with the formal mentor was significantly related to more positive perceptions of the mentoring relationship. Extension organizations should provide structured guidelines for frequency of interactions between mentors and mentees to help improve those relationships.

Keywords: mentor, organizational commitment, psychosocial support, retention, LMX-7

Direct correspondence to Amy Harder at amharder@ufl.edu

Introduction

Workplace mentoring is often touted as a panacea for a variety of issues related to organizational culture (Riley, 2019), leadership development (Sosik & Lee, 2002), and personnel onboarding (Srivastava, 2015). In many organizations, mentoring has evolved from a one-directional, hierarchical relationship between a more experienced individual and a less experienced partner (Kram, 1985) to one that promotes reciprocal learning and enhances inter-personal networks (Mylona et al., 2016; Riley, 2019; Srivastava, 2015). In the context of Cooperative Extension, formal mentoring for agents was not addressed in the literature until the mid-eighties at The Ohio State University (Smith & Beckley, 1985), where it was employed "as an informal supplement to the formal orientation activities provided during the agent's first year on the job" (para. 5).

By nature, Extension is about building relationships with external stakeholders and with colleagues. As such, formal and informal mentors can provide support, friendship, and motivation to mentees (Smith & Beckley, 1985) while also helping mentees better understand their roles and responsibilities (Place & Bailey, 2010). A mentoring support system offers social benefits in that it decreases the stress on new agents to find someone they can trust who is not a direct supervisor. A mentor can also help agents feel supported and find meaning in their job, two primary concerns cited by younger generations entering the workforce (Varner, 2011). Professionally, mentees learn how to build relationships with clientele, engage in problem-solving and risk-taking in a safe environment, and develop strong educational programs, which are all critical competencies for success as an Extension agent (Byington, 2010; Place & Bailey, 2010). In turn, mentors gain personal satisfaction and new perspectives on the organization (Place & Bailey, 2010).

Developing positive mentorship is essential to the onboarding and professional development of new employees (Allen & Poteet, 1999; Inzer & Crawford, 2005). Mentoring provides new employees with emotional support, technical support, personal growth, professional growth, and career development (Brown, 2005; Gill et al., 2012; Sparks et al., 2017; Stanley & Flood, 2017). From an organizational perspective, the formation and maintenance of positive mentor relationships is thought to help reduce employee turnover, improve organizational performance, retain the investment in employee development, and increase employee organizational commitment (Allen et al., 2006; Denny, 2016; Greiman, 2016; Raabe & Beehr, 2003; Strong & Harder, 2009; Tummons et al., 2018). However, few studies have attempted to quantify the impact of mentoring relationships on organizational commitment in Cooperative Extension settings, limiting our understanding of how mentoring might be used to influence this important organizational outcome.

Theoretical and Conceptual Framework

Exchange theory posits mentorship is dyadic in nature (Brown, 2005; Greiman, 2016). Both the mentor and mentee exchange information and ideas in a reciprocal manner and receive benefits

throughout a positive mentoring relationship (Kram, 1985; Ragins & Scandura, 1999). Conceptually, mentoring consists of three behaviors that define the relationship between a mentor and mentee: (a) career development, (b) social support, and (c) role modeling (Kram, 1983; Scandura & Ragins, 1993). Kram (1985) described career development as helping new hires understand the job and prepare them for advancement within the organization. Specific career development behaviors include "coaching, sponsoring their advancement, increasing their positive exposure and visibility, and offering them protection and challenging assignments" (Kram, 1985, p. 5). Social support or psychological support includes (a) building trust; (b) interpersonal bonds; and (c) providing counseling, friendship, and role-modeling (Kram, 1985). Scandura and Ragins (1993) distinguished role modeling as a separate behavior characterized by the extent to which the mentee follows the mentor's model. When all three mentoring behaviors are present in a mentoring relationship, the organizational outcomes of job satisfaction, organizational commitment, and reduced turnover are affected (Kram, 1983).

Our study was influenced by the work of Raabe and Beehr (2003), who examined formal mentoring, supervisor, and coworker relationships for employees in two companies. Raabe and Beehr sought to determine how closely mentor and mentee perceptions of their relationship matched. More germane to our study, Raabe and Beehr also examined the effects of supervisory relationships, formal mentoring relationships, and coworker relationships on the outcomes of job satisfaction, organizational commitment, and turnover intentions. They hoped to find evidence that formal mentoring relationships would create "added value" (Raabe & Beehr, 2003, p. 277) beyond what would be observed from supervisors and coworkers. However, the results showed formal mentoring relationships *were not* related to the employee outcome measurements. Instead, Raabe and Beehr (2003) concluded that "Supervisor and coworker relationships were more important than mentoring relationships in their potential effects on an individual's organizational commitment, job satisfaction, and turnover intent" (p. 285). One possible explanation offered by the authors was that mentors spent less time with their mentees than coworkers and supervisors, providing less opportunity to influence outcomes. As a result, Raabe and Beehr recommended supervisors and coworkers conduct mentoring functions intended to influence organizational commitment, job satisfaction, and/or turnover intent.

We focused on organizational commitment as an outcome of positive mentor relationships. Organizational commitment is defined as "the relative strength of an individual's identification with and involvement in a particular organization," and it "involves an active relationship with the organization such that individuals are willing to give something of themselves in order to contribute to the organization's wellbeing" (Mowday et al., 1978, p. 4). A committed employee will portray a willingness and/or behave in three different ways: (a) a strong belief in an organization's goals and values, (b) willingness to put forth considerable effort on behalf of the organization, and (c) a strong desire to stay in the organization (Mowday et al., 1978).

Organizational commitment is important to Cooperative Extension because of its history of challenges with agent retention (Extension Committee on Organization and Policy (ECOP) Leadership Advisory Council, 2005). Martin and Kaufman (2013) declared, "Within Extension, we need to know more about the job satisfaction and commitment of agents, especially as they relate to intent to quit" (Review of Literature, para. 1). Their research of agents in the southern United States – the same region as this study – found agents were moderately committed to the organization. Further, Martin and Kaufman found organizational commitment was strongly negatively related to intent to quit. An older study by Bowen et al. (1994) found a national sample of 4-H agents was somewhat committed to their Extension organization, and that commitment was significantly higher for older, married, and more experienced agents. No studies were found examining the influence of mentoring or coworker relationships on organizational commitment.

Purpose and Objectives

The purpose of the study was to investigate the potential influence of Extension mentor and coworker relationships on early career agents' organizational commitment. Specifically, we sought to (a) describe early career agents' perceptions of their relationship with their formal mentor, perceptions of their relationship with their best-liked coworkers, and organizational commitment; (b) determine if any relationship existed between frequency of contact with a mentor and new agents' perceptions of the mentoring relationship, and (c) compare the effects of mentor relationships and coworker relationships on organizational commitment.

Study Context

Three active mentoring programs in the southern region of the United States were selected for inclusion in our study. The programs have commonalities in that they are led by Extension program and staff development specialists (rather than human resources personnel), focused on early career agents, and in states known to share cultural and psychological similarities (Rentfrow et al., 2013). Three members of our authorship team lead these mentor programs; we share a common commitment to using data to identify areas in need of improvement so that our institutions' mentoring programs provide the best possible support for early career agents.

New hires for University of Florida, Institute of Food and Agricultural Sciences (UF/IFAS) Extension are required by university regulation to have at least one mentor for the duration of their tenure probationary period, which typically lasts six years. The five District Extension Directors (DEDs) – middle managers in the UF/IFAS Extension system - are responsible for ensuring new hires are assigned mentors. Some DEDs prefer to assign mentors, while others prefer to have new agents choose their mentors. All assigned mentors are supposed to complete an online asynchronous mentor training that provides information on the following topics: roles and responsibilities of mentors and proteges, contact and interaction, establishing a healthy work/life balance, program development 101, methods of teaching and learning, and integrating

into organizational culture. Mentor/protégé pairs can request funding from the Extension Dean's office to support one face-to-face meeting. The university regulation prevents written reports from being required of mentors, so the only standard paperwork is a mentor/protégé agreement that articulates the specific responsibilities of each party and is signed at the beginning of the mentoring relationship. Mentor service is voluntary with no additional compensation, although the organization annually recognizes and financially rewards one UF/IFAS Extension Mentor of the Year.

New hires for University of Georgia (UGA) Extension are assigned two mentors for the duration of their first year in their role as Public Service Faculty Extension Agent. Mentoring for UGA Extension has no additional compensation, and mentors can have a maximum of two mentees at one time. The four DEDs in the UGA Extension system are responsible for ensuring new hires have their mentor team consisting of a program mentor and relationship mentor. The mentee's district Program Development Coordinator (PDC) coordinates the team. Program mentors are in the same program area as the mentee and focus on providing basic program information, connecting mentee to technical experts, coordinating site visits, aiding in learning the program planning and reporting processes, reinforcing learnings from formal onboarding trainings, and explaining scholarship expectations. Relationship mentors can be from any program area and focus on personnel management, office dynamics, interacting with the community, building relationships, and other aspects of working in the county (i.e., navigating the urban or rural contexts). Mentor assignments consider the county size, county dynamics, personalities, and geographic location of mentees and potential mentors. All assigned mentors are supposed to complete a face-to-face mentor training that provides information on the following topics: roles and responsibilities of mentors and mentees, distinctions between the two types of mentors, coaching techniques, and a philosophy of connecting mentees to resources and experiences instead of a focus on dissemination of technical expertise. Districts provide travel budgets for each mentor to go to the mentee's county for a visit and for the mentee to travel to each mentor's county for a visit at least once in the first three months and then as needed moving forward. Mentees and mentors provide feedback on the relationship via quarterly surveys. Results are shared with the DED and PDC of the mentee and the statewide coordinator of the mentor program.

Extension agents hired by Mississippi State University (MSU) Extension are paired with a group of at least two certified mentors for the first 12 months on the job. Mentors are encouraged to continue the relationship informally with the new agent for at least an additional six months. The Regional Extension Coordinators (RECs) work in partnership with the state Program and Staff Development (PSD) Extension Specialist to identify appropriate mentors in their region. The process of selecting mentors for each new hire is both objective and subjective and depends on several factors, including the educational background and experience of the new agent, the existing stakeholder relationships and political climate in their respective county, program area appointment, and personality similarities or differences of both the mentors and new agent.

Mentors are trained either face-to-face or synchronously online by the PSD Specialist on the following topics: roles and responsibilities, adult learning principles and practices, communication and conflict management, and mentoring strategies and best practices. Mentors receive a salary stipend, paid monthly for one year, to incentivize and reward their leadership and interactions with their mentees. This stipend also supports four in-person visits between the mentors and mentee. Mentors may be asked to work with up to three new agents at a time. There are no formal reports required from the mentors, but the PSD Specialist follows up regularly with both mentors and mentees, as well as the REC, to determine if changes need to be made to a respective pairing.

Methods

A causal-comparative design was used to accomplish the research objectives. The target population consisted of early career Extension professionals employed by UF/IFAS, UGA, and MSU Extension agencies. For consistency, this study refers to individuals of the population as agents. Early career was operationally defined as agents who had fewer than four years of Extension experience.

The three study researchers with responsibility for leading their state's mentoring program provided a list of agents who qualified as potential participants ($N = 217$). UF/IFAS Extension had 95 early career agents, UGA Extension had 99 early career agents, and MSU Extension had 23 early career agents. Agents represented common Extension program areas, including agriculture, natural resources, family and consumer sciences, and 4-H.

The survey instrument closely followed the design of the instrument used by Raabe and Beehr (2003). There were three major sections: (a) mentoring relationships, (b) best-liked coworker relationships, and (c) organizational commitment. Additional questions asked if the respondents had a majority 4-H appointment and what types of additional support would be helpful to them as early career agents.

Mentoring relationships were measured by (a) career development, (b) psychosocial support activities, and (c) role modeling constructs. Items were adapted from Raabe and Beehr (2003), who developed their instrument based on the work of Scandura and Ragins (1993). Wording changes were made to reflect the Extension context. For example, the question asking how often a mentee goes to lunch with his/her mentor was changed to how often a mentee socializes with the mentor when they are together for work events. There were 15 items for mentoring relationships measured using a 7-point Likert-type scale. The response options were: 1 = *Strongly Disagree*, 2 = *Moderately Disagree*, 3 = *Slightly Disagree*, 4 = *Neither Agree/Disagree*, 5 = *Slightly Agree*, 6 = *Moderately Agree*, 7 = *Strongly Agree*. There were five items for Career Development (CD), six items for Psychosocial Support (PS), and four items for Role Modeling (RM). The overall mean for each construct was reported and interpreted as follows: *Strongly Disagree* = 1.00 – 1.49, *Moderately Disagree* = 1.50 – 2.49, *Slightly Disagree* = 2.50 – 3.49,

Neither Agree/Disagree = 3.50 – 4.49, *Slightly Agree* = 4.50 – 5.49, *Somewhat Agree* = 5.50 – 6.49, and *Strongly Agree* = 6.50 – 7.00.

Respondents were asked to consider their best-liked coworker, with the instructions that the coworker should be a person they held in high regard but was *not* a direct supervisor or formal mentor. The coworker did not have to work in the same office. In the original study, Raabe and Beehr (2003) adapted the original LMX instrument (Liden & Maslyn, 1998) to measure coworker relationships and referred to it as the Coworker-Member Exchange (CMX). In our study, the best-liked coworker relationships were measured based on Benge and Harder's (2017) adaptation of the LMX-7 instrument (Maslyn & Uhl-Bien, 2001) for the Extension context. Unlike in Benge and Harder's (2017) adaptation, we measured the seven items using a 7-point Likert-type scale to be consistent with the scale used for measuring the mentoring relationships. Wording changes were made to reflect the focus on the best-liked coworker (rather than supervisor) and enable the use of the same scale for all items. The LMX-7 is interpreted by summating the scores of the individual items for each respondent to determine the quality of the relationship. We chose to do the same with the CMX-7 items (see Table 1).

Table 1. Interpretation of the CMX-7

Score	Quality of Coworker-Member Exchange
42 – 49	Very High
34 – 41	High
25 – 33	Moderate
16 – 24	Low
7 – 15	Very Low

Organizational commitment was measured using Mowday et al.'s (1979) Organizational Commitment Questionnaire. As with the prior two sections, the same 7-point Likert-type scale was used to measure the 15 individual items associated with organizational commitment. Unlike the prior two sections of the survey, the organizational commitment section included six reverse-coded items to be consistent with the original instrument. No changes were made to the item wording. We emphasized the inclusion of the items in the section instructions for the respondents to decrease the possibility of response error. After adjustment to the reverse-coded items, the Organizational Commitment (OC) construct was interpreted using the same ranges for measuring mentor relationships.

Developing our instrument from three established instruments helped ensure the items included were valid and reliable. However, we acknowledge the changes we made to two of those instruments to suit the Extension context may have influenced both measures. Therefore, we conducted *ex post facto* analysis using Cronbach's alpha to calculate reliability. Table 2 displays the alpha coefficients for each construct in the instrument. The reliability levels were acceptable, as shown in Table 2.

Table 2. Reliability of Internal Constructs

Construct	Items	Coefficient
Psychosocial support activities	5	0.85
Career development	6	0.93
Role modeling	4	0.88
CWX-7	7	0.89
Organizational commitment	15	0.90

Dillman et al. (2014) recommended sending potential respondents a pre-notice before beginning data collection. We followed this recommendation for potential respondents from UGA Extension and MSU Extension so that they would know to expect a survey invitation originating from UF/IFAS Extension. The pre-notice was e-mailed on May 1, 2020, followed by the survey invitation on May 4, a first reminder on May 8, and a final reminder on May 14. One e-mail bounced, leaving an accessible population of 216 agents. Of those, 142 agents started the survey, and 126 complete responses were received for a usable response rate of 58%. Ten respondents reported not having a formal mentor and were excluded from further analysis. Nonresponse error was guarded against by comparing early to late respondents on the five constructs of interest as recommended by Lindner et al. (2001). Results of a series of independent t-tests indicated no differences on the constructs between early and late respondents.

Data analysis consisted of calculating frequencies, means, and standard deviations to address the first objective, which was descriptive in nature. The second objective sought to determine if any relationships existed between frequency of contact and perceptions of the mentor relationship while accounting for differences in state program groups, so a two-way MANOVA was used for analysis. Finally, a hierarchical regression was conducted to compare the effect on organizational commitment of mentor relationships, coworker relationships, and an interaction between the factors.

Results

Addressing the first objective, Table 3 displays a descriptive summary of agents' perceptions towards their relationship with their formal mentor, relationship with their best-liked coworkers, and organizational commitment. With respect to mentoring relationships in UF/IFAS Extension, agents neither agreed nor disagreed that their mentor provided psychosocial support ($M = 3.61$, $SD = 1.52$). Similarly, UF/IFAS Extension agents neither agreed nor disagreed their mentor performed career development roles ($M = 4.30$, $SD = 1.61$). However, UF/IFAS Extension agents somewhat agreed their mentor served as a role model ($M = 5.63$, $SD = 1.14$). In MSU Extension, agents slightly disagreed their mentor provided psychosocial support ($M = 3.31$, $SD = 1.47$), and neither agreed nor disagreed their mentor performed career development roles ($M = 3.68$, $SD = 2.00$). In contrast, MSU Extension agents slightly agreed their mentor served as a role model ($M = 5.39$, $SD = 1.27$).

UGA Extension agents held somewhat similar perceptions to their colleagues in UF/IFAS Extension. For the two mentorship programs in UGA Extension, Program Mentor (P) and Relationship Mentor (R), agents' neither agreed nor disagreed their mentor provided psychosocial support (M^P = 4.03, SD^P = 1.41; M^R = 3.70, SD^R = 1.46) or performed career development roles (M^P = 4.32, SD^P = 1.36; M^R = 4.10, SD^R = 1.69). UGA Extension agents somewhat agreed their program and relationship mentors served as a role model (M^P = 5.60, SD^P = 1.10; M^R = 5.67, SD^R = 1.15).

With respect to the quality of the relationships between agents and their best-liked coworker (CWX-7), results in Table 3 were generally consistent across the three states. On average, agents perceived there were high-quality relationships between themselves and their best-liked coworker in UF/IFAS Extension (M = 39.86, SD = 7.49), MSU Extension (M = 40.73, SD = 7.84), and UGA Extension (M = 38.96, SD = 6.57). Organizational commitment was also consistent across states. Agents slightly agreed they had commitment toward their respective organization in UF/IFAS Extension (M = 5.37, SD = 1.01), MSU Extension (M = 4.85, SD = 0.83), and UGA Extension (M = 5.47, SD = 0.95).

Table 3. Descriptive Overview of Agents' Perceptions of Study Constructs

	Mean (SD)			
			UGA Extension (n = 47)	
Construct	UF/IFAS Extension (n = 58)	MSU Extension (n = 11)	Program	Relationship
Psychosocial Support	3.61 (1.52)	3.31 (1.47)	4.03 (1.41)	3.70 (1.46)
Career Development	4.30 (1.61)	3.68 (2.00)	4.32 (1.36)	4.10 (1.69)
Role Modeling	5.63 (1.14)	5.39 (1.27)	5.60 (1.10)	5.67 (1.15)
CWX-7[a]	39.86 (7.49)	40.73 (7.84)	38.96 (6.57)	
Organizational Commitment	5.37 (1.01)	4.85 (0.83)	5.47 (0.95)	

[a]CWX-7 ranges from 7 to 49; all other constructs range from 1 to 7.

For the second objective, a two-way MANOVA was conducted to examine the relationship between frequency of contact with a mentor and perceptions of the mentoring relationship. The three constructs of mentoring relationships (psychosocial support, career development, and role modeling) served as simultaneous dependent variables, while program group and contact frequency were independent variables in the model. There were three levels within program group: (a) UF/IFAS Extension, (b) UGA Extension – Program, and (c) UGA Extension – Relationship. There were also three levels within contact frequency (a) at least once a week, (b) 2 - 3 times a month, and (c) less than 2 - 3 times a month. The two-way MANOVA model assessed two main effects: (a) difference in mentoring constructs by contact frequency and (b) difference in mentoring constructs by program group. Lastly, the model assessed the interaction effect of program group and contact frequency on the mentoring constructs. Pillai's Trace test statistic was reported since there were unbalanced observations within each cell of the factorial model.

Pillai's Trace is generally robust to departures from model assumptions of normality and homogeneity (Tabachnick & Fidell, 2019).

Table 4 shows the multivariate test statistics for two main effects (A and B) and the interaction effect (A*B). Results indicated only contact frequency had a statistically significant and simultaneous effect on psychosocial support, career development, and role modeling ($F = 6.13$, $p < 0.05$). Program group, as a main effect, and the interaction between program group and contact frequency did not have a statistically significant effect on the three mentoring constructs. Therefore, results indicate significant differences in agents' perceptions of their mentorship relationships based on frequency of contact. The lack of a group effect (B) and interaction effect (A*B) indicates the significant relationship between contact frequency and mentoring relationships was consistently present across all three program groups.

Table 4. Multivariate Relationships between Mentoring Constructs and Contact Frequency by Group

	Source	Pillai's Trace	*F*	*η2*
Main Effect A	Contact Frequency	0.24	6.13*	0.12
Main Effect B	Group	0.03	0.65	0.01
Interaction A*B	Contact*Group	0.07	1.00	0.03

*$p < .05$.

Given the importance of Main Effect A, as shown in the MANOVA model, Table 5 displays the between-subject effects of contact frequency on mentoring constructs. Results indicated contact frequency had a statistically significant effect on all three dependent variables: psychosocial support ($F = 13.23$, $p < 0.05$), career development ($F = 18.24$, $p < 0.05$), and role modeling ($F = 9.78$, $p < 0.05$). Following Cohen's (1988) interpretation of effect size, the effect of contact frequency was characterized as medium on role modeling ($η2 = 0.13$), and large on psychosocial support ($η2 = 0.16$) and career development ($η2 = 0.21$). Due to the insignificant interaction effect (A*B) shown in Table 4, this relationship holds for all program groups.

Table 5. Between-Subjects Effect of Contact Frequency on Mentoring Constructs

Source	Dependent Variables	*df*	*F*	*η2*
Main Effect (A) Contact Frequency	Psychosocial Support	2	13.23*	0.16
	Career Development	2	18.24*	0.21
	Role Modeling	2	9.78*	0.13

*$p < .05$.

Table 6 provides a factor-level assessment of contact frequency on the mentoring constructs (Main Effect A). It shows the Bonferroni-adjusted Tukey's post-hoc comparisons of mentoring relationship construct means by contact frequency. Results indicated the between-group effects of contact frequency were consistent across mentoring constructs. Results indicated the mean scores for psychosocial support, career development, and role modeling were statistically and

significantly higher for mentees who met with their mentors at least once a week or 2-3 times a month compared to those who met fewer than 2-3 times a month. This indicates mentees who met with their mentor more often were more in agreement that their mentor performed functions related to psychosocial support, career development, and role modeling, regardless of the state of employment.

Table 6. Post-hoc Comparisons of Construct Means by Contact Frequency

Dependent	Contact Frequency	*n*	*M**	*SD*
Psychosocial Support	At least once a week	18	4.87[a]	1.22
	2-3 times a month	51	4.13[a]	1.40
	Less than 2-3 times a month	76	3.25[b]	1.37
Career Development	At least once a week	18	5.31[a]	1.12
	2-3 times a month	51	4.86[a]	1.19
	Less than 2-3 times a month	76	3.59[b]	1.57
Role Modeling	At least once a week	18	6.26[a]	0.74
	2-3 times a month	51	5.94[a]	0.94
	Less than 2-3 times a month	76	5.30[b]	1.20

Note. Bonferroni-adjusted Tukey's post-hoc: a ≠ b.
[a]Multiple comparison group a: At least once a week and 2-3 times a month.
[b]Multiple comparison group b: Less than 2-3 times a month.
*$p < .05$

Table 7 displays the results of a hierarchical regression model (HRM) to address the third objective. The HRM was created to assess and compare the correlational effect of mentoring relationship constructs and coworker relationships on organizational commitment. The standardized beta allowed a direct comparison of the statistical contribution of each independent variable on organizational commitment in Block 1. Block 2 displays the effect of an interaction between mentoring relationship constructs and coworker relationships on organizational commitment. The interaction terms were derived from mean-centered values for psychosocial support, career development, role modeling, and coworker exchange, which effectively prevented multicollinearity (VIF < 10). Block 1 and 2 of the HRM was marginally significant due to the intercept terms ($F^1 = 2.28$, $p < 0.05$; $F^2 = 2.12$, $p < 0.05$), but were not different based on their effect on organizational commitment (F-change = 1.42, $p > .05$). Results indicated agents' perceptions of their mentee-mentor relationship were not significantly correlated to organizational commitment with respect to psychosocial support, career development, and role modeling, their relationship with their best-liked coworker, and any interaction between those independent factors. Three group-level HRMs indicated these insignificant relationships were consistent across program groups.

Table 7. Hierarchical Regression Model of Selected Factors on Organizational Commitment

Model	Independent Factors	B	Std. Error	Std. Beta	*t*	*p*	VIF
Block 1	Psychosocial Support	0.12	0.07	0.19	1.66	0.10	1.92
	Career Development	0.06	0.08	0.10	0.74	0.46	2.73
	Role Modeling	-0.04	0.10	-0.04	-0.36	0.72	2.12
	Coworker Exchange	0.01	0.01	0.10	1.18	0.24	1.01
Block 2	Psychosocial Support	0.10	0.08	0.16	1.37	0.17	1.99
	Career Development	0.07	0.08	0.12	0.83	0.41	2.82
	Role Modeling	-0.03	0.10	-0.04	-0.33	0.74	2.17
	CWX-7	0.02	0.01	0.12	1.45	0.15	1.03
	PS*CWX (Mean-centered)	0.02	0.01	0.21	1.80	0.07	2.08
	CD*CWX (Mean-centered)	-0.02	0.01	-0.17	-1.24	0.22	2.88
	RM*CWX (Mean-centered)	0.01	0.02	0.09	0.78	0.44	1.95

Conclusions, Implications, and Recommendations

We sought to investigate the potential influence of Extension mentor and coworker relationships on new agents' organization commitment, focusing specifically on the influence of formally assigned mentors and the influence of best-liked coworkers. To begin, we measured early career agents' perceptions of their relationships with their mentors. Early career agents working for UF/IFAS Extension, UGA Extension, and MSU Extension tended to have more positive perceptions of their mentor's role modeling behaviors compared to roles associated with psychosocial support and career development, but they did not strongly agree their mentors practiced any of the three behaviors. Mentoring relationships can be improved across all three behavioral constructs, especially with respect to psychosocial support and career development.

An interesting observation from UGA Extension was that the relationship mentors were rated *lower* for psychosocial support than their program mentor peers. Kram (1985) described psychosocial support as focused on building trust, providing counseling, and developing interpersonal bonds. The relationship mentors are supposed to teach their mentees how to develop positive relationships in their communities. By focusing externally, they may be missing opportunities to build positive internal bonds. This disparity between early career agents' perceptions of the psychosocial support provided by program and relationship mentors warrants further investigation to determine the causes.

We also examined early career agents' perceptions of their relationship with their best-liked coworker. Early career agents tended to perceive having a high-quality relationship with their best-liked coworker across the three state Extension systems. This finding seems intuitive but provides evidence agents are developing positive relationships with others in the organization, even if it is not with their formally assigned mentor(s). However, this study was limited in its inclusion of only currently employed agents. More research is needed to examine whether those agents who left the organization had similarly high-quality relationships with at least one

coworker or if their departure was influenced by a lack of positive coworker relationships. Additionally, given that early career agents have such positive perceptions of their relationships with their best-liked coworkers, there may be value in measuring early career agents' perceptions of the career development, psychosocial support, and role modeling behaviors practiced by their best-liked coworkers. Coworkers may be serving as informal mentors (Smith & Beckley, 1985) and providing many of the same benefits provided by effective formal mentoring relationships (Brown, 2005; Gill et al., 2012; Sparks et al., 2017; Stanley & Flood, 2017).

The early career agents in our study slightly agreed they felt organizational commitment, with agents in UGA Extension trending most closely to being somewhat in agreement about their commitment. In contrast, the agents studied by Martin and Kaufman (2013) and Bowen et al. (1994) reported somewhat to moderate levels of organizational commitment. Organizational commitment is important for Extension, given that committed employees are more likely to put in considerable efforts toward supporting the organization than their less committed colleagues (Mowday et al., 1978). Additionally, committed employees are less likely to express an intent to quit (Martin & Kaufman, 2013) and are more likely to express a strong desire to stay in the organization (Mowday et al., 1978), important considerations for Extension. More research is needed to determine how to improve early career agents' organizational commitment.

Kram (1983) suggested the presence of all three mentoring behaviors in a relationship will contribute to positive organizational outcomes, including organizational commitment. However, consistent with Raabe and Beehr (2003), we did not find mentor relationships to be significant contributors to early career agents' organizational commitment levels. However, unlike Raabe and Beehr (2003), early career agents' relationships with their best-liked coworker also did not significantly influence organizational commitment. For Extension, it appears that relationships with mentors and best-liked coworkers are not the key drivers in determining an early career agent's organizational commitment, which limits the intentional use of those relationships as strategies for increasing the organizational commitment. However, positive relationships may still be important for job satisfaction and turnover intent (Raabe & Beehr, 2003), similar but theoretically distinct concepts to organizational commitment.

Practically, each state should re-evaluate its training curriculum based on the results of our study and seek ways to increase the emphasis on developing mentors' abilities to perform the three mentoring behaviors. One easy way to improve mentoring relationships is to provide structured guidelines for how often mentors meet with their mentees as a part of the mentor training curriculum, based on our findings that there was a positive correlation between frequency of contact and perceptions of mentoring behaviors. Mentors should be meeting with their mentees at least two or three times a month; they may need reminders to stay on schedule. It may be valuable for future research to investigate the influence of type of contact (e.g., phone, in-person, or e-mail) on relationship quality to see if it moderates the effectiveness of the frequency of contact. Replicating the study in other regions of the country is recommended to determine if

cultural and psychological variations (Rentfrow et al., 2013) impact mentoring outcomes. Research on retaining early career Extension agents will continue to be needed until the most effective strategies to increase organizational commitment have been identified and adopted.

References

Allen, T. D., Eby, L. T., & Lentz, E. (2006). Mentorship behaviors and mentorship quality associated with formal mentoring programs: Closing the gap between research and practice. *Journal of Applied Psychology, 91*(3), 567–578. https://doi.org/10.1037/0021-9010.91.3.567

Allen, T. D., & Poteet, M. L. (1999). Developing effective mentoring relationships: Strategies from the mentor's viewpoint. *The Career Development Quarterly, 48*(1), 59–73. https://doi.org/10.1002/j.2161-0045.1999.tb00275.x

Benge, M., & Harder, A. (2017). The effects of leader-member exchanges on the relationships between Extension agents and county Extension directors in Florida. *Journal of Human Sciences and Extension, 5*(1), 35–49. https://www.jhseonline.com/article/view/631/547

Bowen, C. F., Radhakrishna, R., & Keyser, R. (1994). Job satisfaction and commitment of 4-H agents. *Journal of Extension, 32*(1).

Brown, T. M. (2005). Mentorship and the female college president. *Sex Roles, 52*(9–10), 659–666. https://doi.org/10.1007/s11199-005-3733-7

Byington, T. (2010). Keys to successful mentoring relationships. *Journal of Extension*, *48*(6), 10–13.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Erlbaum.

Denny, M. D. (2016). Mentoring adult learners: Implications for Cooperative Extension as a learning organization. *Journal of Extension, 54*(3).

Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). *Internet, phone, mail and mixed-mode surveys: The tailored design method* (4th ed.). John Wiley & Sons.

Extension Committee on Organization and Policy Leadership Advisory Council. (2005). *2005 report*. National Association of State Universities and Land-Grant Colleges.

Gill, B., Russell, M., & Rayfield, J. (2012). Influence of mentoring on dyad satisfaction: Is there agreement between matched pairs of novice teachers and their formal mentors? *Journal of Agricultural Education, 53*(1), 5–17. https://doi.org/10.5032/jae.2012.01005

Greiman, B. C. (2016). Influence of mentoring on dyad satisfaction: Is there agreement between matched pairs of novice teachers and their formal mentors? *Journal of Career and Technical Education, 23*(1). https://doi.org/10.21061/jcte.v23i1.450

Inzer, L. D., & Crawford, C. B. (2005). A review of formal and informal mentoring. *Journal of Leadership Education, 4*(1), 31–50. https://doi.org/10.12806/v4/i1/tf2

Kram, K. E. (1983). Phases of the mentor relationship. *Academy of Management Journal, 26*(4), 608–625. https://doi.org/10.2307/255910

Kram, K. E. (1985). *Mentoring at work: Developmental relationships in organizational life*. Scott, Foresman and Company.

Liden, R. C., & Maslyn, J. M. (1998). Multidimensionality of leader-member exchange: An empirical assessment through scale development. *Journal of Management, 24*(1), 43–72. https://doi.org/10.1016/S0149-2063(99)80053-1

Lindner, J. R., Murphy, T. H., & Briers, G. E. (2001). Handling nonresponse in social science research. *Journal of Agricultural Education, 42*(4), 43–53. https://doi.org/10.5032/jae.2001.04043

Ling, L., Kate Lin, Y., Kozina, E., Matheson, I., Zogla, I., Newcombe, L., & Collinson, V. (2009). Professional development for teachers: A world of change. *European Journal of Teacher Education*, *32*(1), 3–19. https://doi.org/10.1080/02619760802553022

Martin, M. J., & Kaufman, E. J. (2013). Do job satisfaction and commitment to the organization matter when it comes to retaining employees? *Journal of Extension, 51*(4).

Masyln, J. M., & Uhl-Bien, M. (2001). Leader-member exchange and its dimensions: Effects of self-effort and other's effort on relationship quality. *Journal of Applied Psychology, 86*(4), 697–708. https://doi.org/10.1037/0021-9010.86.4.697

Mowday, R. T., Steers, R. M., & Porter, L. W. (1978). *The measurement of organizational commitment* (Technical Report No. 15). Department of Management, Graduate School of Management, University of Oregon. https://apps.dtic.mil/dtic/tr/fulltext/u2/a057377.pdf

Mylona, E., Brubaker, L., Williams, V. N., Novielli, K. D., Lyness, J. M., Pollart, S. M., Dandar, V., & Bunton, S. A. (2016). Does formal mentoring for faculty members matter? A survey of clinical faculty members. *Medical Education, 50*(6), 670–681. https://doi.org/10.1111/medu.12972

Place, N. T., & Bailey, A. (2010). Extension mentoring: Steps leading to greater program effectiveness. *Journal of Extension, 48*(4).

Raabe, B., & Beehr, T. A. (2003). Formal mentoring versus supervisor and coworker relationships: Differences in perceptions and impact. *Journal of Organizational Behavior, 24*, 271–293. https://doi.org/10.1002/job.193

Ragins, B., & Scandura, T. A. (1999). Burden or blessing? Expected costs and benefits of being a mentor. *Journal of Organizational Behavior, 20*(4), 493–509. https://doi.org/10.1002/(SICI)1099-1379(199907)20:4<493::AID-JOB894>3.0.CO;2-T

Rentfrow, P. J., Gosling, S. D., Jokela, M., Stillwell, D. J., & Kosinski, M. (2013). Divided we stand: Three psychological regions of the United States and their political, economic, social, and health correlates. *Journal of Personality and Social Psychology, 105*(6), 996–1012. https://doi.org/10.1037/a0034434

Riley, M. (2019). The mentoring networks of outdoor educators. *Journal of Outdoor Recreation, Education, and Leadership, 11*(3), 207–221. https://doi.org/10.18666/JOREL-2019-V11-I3-9519

Scandura, T. A., & Ragins, B. R. (1993). The effects of sex and gender role orientation on mentorship in male-dominated occupations. *Journal of Vocational Behavior, 43*(3), 251–265. https://doi.org/10.1006/jvbe.1993.1046

Smith, K. L., & Beckley, W. E. (1985). Mentoring: Is it for Extension? *Journal of Extension, 23*(3).

Sosik, J. J., & Lee, D. L. (2002). Mentoring in organizations: A social judgment perspective for developing tomorrow's leaders. *The Journal of Leadership Studies, 8*(4), 17–32. https://doi.org/10.1177/107179190200800402

Sparks, J., Tsemenhu, R., Green, R., Truby, W., Brockmeier, L. L., & Noble, K. D. (2017). Investigating new teacher mentoring practices. *National Teacher Education Journal, 10*(1), 59–65. https://img1.wsimg.com/blobby/go/003a8836-40db-4b0c-b44f-4211ffada1e1/downloads/1ckfv85r1_897921.pdf

Srivastava, S. B. (2015). Network intervention: Assessing the effects of formal mentoring on workplace networks. *Social Forces, 94*(1), 427–452. https://doi.org/10.1093/sf/sov041

Stanley, C., & Flood, K. (2017). Addressing the agriculture education shortage through Alpha Tau Alpha. *The Agricultural Education Magazine, 90*(3), 22–24. https://www.naae.org/profdevelopment/magazine/archive_issues/Volume90/2017%2011%20--%20Nov%20Dec.pdf

Strong, R., & Harder, A. (2009). Implications of maintenance and motivation factors on Extension agent turnover. *Journal of Extension, 47*(1).

Tabachnick, B. G., & Fidell, L. S. (2019). *Using multivariate statistics* (7th ed.). Pearson.

Tummons, J., Kitchel, T., & Garton, B. (2018). Expectation congruency and psychosocial support in formal agriculture teacher mentoring relationships. *Journal of Agricultural Education, 57*(4), 68–85. https://doi.org/10.5032/jae.2016.04068

Varner, D. L. (2011). *A phenomenological study of millennial generation Cooperative Extension educators' development of core competencies* [Doctoral dissertation, University of Nebraska, Lincoln]. Digital Commons. https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1026&context=aglecdiss

Amy Harder is a Professor and the Director of the Program Development and Evaluation Center in the Department of Agricultural Education and Communication at the University of Florida. ORCID: 0000-0002-7042-2028

Lendel K. Narine is an Extension Assistant Professor and Evaluation Specialist at Utah State University Extension. ORCID: 0000-0001-6962-2770

Matt Benge is an Extension Assistant Professor in the Department of Agricultural Education and Communication at the University of Florida. ORCID: 0000-0002-5358-3233

Marina Denny is an Assistant Professor in the School of Human Sciences at Mississippi State University. ORCID: 0000-0001-7391-3204

Kristi Farner is an Extension Program and Staff Development Specialist in the Office of Learning and Organizational Development at the University of Georgia.