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Family and Consumer Sciences Extension Agent Receptiveness to Innovative Caregiving Programming

Abstract

Communities can adapt to residents' needs through innovative citizen-led initiatives. Extension can facilitate these innovation initiatives, but are Extension agents always receptive to such change? We conducted a study to examine the association between organizational change and personal factors and Extension family and consumer sciences agents' innovativeness regarding caregiving programming. Respondents rated their receptiveness to change and answered questions regarding psychosocial health factors. We found that years in current position, leadership self-efficacy, interoffice support, and social support were significant predictors of innovativeness. Results suggest that personal factors rather than organizational change factors may be the more crucial mechanisms for driving agents' innovativeness.

Keywords: organizational change, innovation, receptivity to change

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Introduction

The need for innovative public health education is increasing, but are Extension family and consumer sciences (FCS) agents receptive to implementing relevant new programming? We undertook a study to answer this question.

An estimated three in four Americans over the age of 65 have at least two or more chronic conditions such as cancer or dementia that cause them to require assistance (Centers for Disease Control and Prevention, 2016). This assistance, which can be physical, emotional, or financial, is typically provided by a family member or friend, known as a family caregiver. A family in which this circumstance occurs is called a care family. An estimated 43.5 million Americans provide care for a family member, and 84% of caregivers report needing more information and training in order to provide quality care (National Alliance for Caregiving and AARP Public Policy Institute, 2015).

Caregiving and Social Innovation

An ever-increasing aging population with care needs (Kearns, 2015) has motivated researchers such as Gans (2013) to call for social innovation in caregiving. Social innovation focuses on adapting community settings in response to changing social circumstances (e.g., caregiving, aging in place) through modification of existing tasks or implementation of new tasks provided by community members (Gurstein, 2013). Communities adapt to residents' needs through empowered citizens and entities that drive innovation by creating "new collective learning, coordination, and communication" (Neumeier, 2017, p. 37). As such an entity, Extension shapes communities (Bowling & Brahm, 2002) and can change the way care families interact with their environments by implementing innovative caregiving education initiatives.

Opportunity for FCS Professionals

Extension is a community entity that can provide leadership in innovation initiatives because of its participation in the knowledge creation process and delivery of educational programs (Franck, Penn, Wise, & Berry, 2017). In particular, Extension FCS agents provide educational programs that address important issues in an attempt to aid community members in meeting ever-changing home, community, and social environments (Atiles & Eubanks, 2014).

Changing environmental influences can stimulate change in educational programming (Lakai, Jayaratne, Moore, & Kistler, 2012; Rowe, 2010) and organizational structure. Cochran, Ferrari, and Arnett (2014) noted that Extension must change from concentrating on broad educational initiatives to focusing on particular programmatic or organizational themes. As Cochran et al. (2014) explained, such specificity lends special emphasis to critical public issues and provides organizations a chance to respond to those issues. Beyond response to shifting environmental influences, change occurs for other reasons as well. The term *organizational change* refers to changes an organization implements to improve efficiency. Like other organizations, Extension is facing challenges related to economic declines, technological innovations, and the shift to a knowledge-based workforce (i.e., a workforce that employs theoretical and analytical knowledge gained from formal education to develop solutions for identified problems). These factors change how Extension agents operate programs (Smith & Torppa, 2010). The term *organizational readiness for change* refers to an organization's members' commitment to and confidence in implementing organizational change (Weiner, 2009). To remain focused on Extension's core mission of improving quality of life through education, FCS agents must be receptive to the multitude of changes occurring and ready to implement new initiatives (Pettigrew, Ferlie, & McKee, 1992), including the innovation initiatives required to address the needs of communities challenged by our aging population.

Purpose

The purpose of our study was to examine associations between organizational change and personal factors and Extension FCS agents' innovativeness regarding implementing caregiving education initiatives. Our broader goal was to understand what organizational change or personal factors may influence the implementation of future programming.

Methods

Study Sample

Participants were recruited via the U.S. Department of Agriculture (USDA) National Institute of Food and Agriculture (NIFA) Division of Family and Consumer Sciences national distribution list. Representatives from organizations on the list were asked to disseminate the survey through their networks. Exact numbers of individuals who were reached is unknown to both USDA NIFA and our research team. Thus, an accurate response rate was incalculable. The Oklahoma State University Institutional Review Board approved the study prior to data collection. We used survey research methods to collect data from participants. Majority groups within the sample were females, those who identified their race/ethnicity as White, and those who held the position of agent. The mean age of respondents was 47. Tables 1 and 2 provide basic demographic information.

Table 1.

Gender, Race/Ethnicity, County Type, and Assignment Demographics of Study Sample (*N* = 216)

Variable	***f***	**%**
Gender		
Female	208	96.3%
Male	6	3.7%
Race/ethnicity		
White	193	89.4%
Black or African American	11	5.1%
Hispanic or Latino	5	2.3%
Native American/Alaska Native	1	0.5%
Asian American	1	0.5%
Multiracial	4	1.9%
County type		
Rural: pop. < 2,500	50	23.1%
Suburban: 2,500 < pop. < 50,000	97	44.9%

Urban: pop > 50,000	65	30.1%
Assignment: client		
Agent is expected to serve older adults/family caregivers	130	60.2%
Agent is not necessarily required to serve older adults or family caregivers	86	39.8%

Table 2.

Descriptives for Age, Assignment, and Years in Position Study Variables (*N* = 216)

Variable	***f***	**%**	***M* (*SD*)**	**Range**
Age (years) (208 responses)			47.32 (12.214)	22-69
Assignment: Percentage FCS (214 responses)			83.3 (25.29)	0-100
75%-100%	161	75.2%	96.32 (7.65)	75-100
40%-70%	40	18.75%	53.40 (8.2)	40-70
0%-33%	13	6%	15.08 (13.61)	0-33
Years in current position (216 responses)			10.16 (9.675)	0-47
0-9	131	60.6%	3.54 (2.59)	0-9
10-25	64	29.6%	16.44 (4.20)	10-25
26-47	21	9.7%	31.41 (4.90)	26-47

Variable Selection

In addition to selected demographic variables, the 29-question survey featured questions regarding organizational change and personal factors using previously validated scales. Table 3 provides information regarding these variables. Note that both age and subjective age are featured; age refers to chronological age, whereas subjective age refers to respondents' perceived age. In other words, subjective age measures how old the respondent feels, as opposed to his or her actual age.

Table 3.

Dependent and Independent Variables

Variable	**Scale**	**Sample statement**	**Source**
Dependent variable			
Innovativeness	Trendsetting Questionnaire	I often read detailed articles about the latest ideas, trends, and developments.	Batinic, Wolff, & Haupt (2008)
Independent variables			
Information-gathering	Perceived Information	It is difficult to find information	Yang, Kahlor, & Li (2014)

ability	Gathering Capacity Measure	about family caregiving.	
Leadership self-efficacy	Leadership Self-Efficacy Scale	Setting a clear direction for teamwork in order to reach organizational goals.	Grant (2014)
Environmental pressure	Readiness to Change Scale[a]	I don't think family caregiving is a big problem in my area.	Banyard, Eckstein, & Moynihan (2010)
Interoffice support	Employee Teamwork Scale	My Extension office functions as a team.	Barsade & O'Neill (2014)
Subjective age	Subjective Age Identity Measure[b]	If I could pick out the age I would like to be right now, I would like to be:	Hubley & Arim (2012)
Work-related stress	Work-Related Stress Scale	I feel overwhelmed by my workload.	McCutcheon & Morrison (2016)
Social support[c]	Social Provisions Scale	There are people I can depend on to help me if I really need it.	Cutrona & Russell (1987)

Note. Reliability estimates reflected adequate internal consistency for all measures (.73 to .91).
[a]The scale was modified. Three questions for assessing factors specific to Extension agents (i.e., I have faced challenges in teaching care families; I have faced challenges in reaching care families; Family caregiving is an important topic in my Cooperative Extension Network) were added. [b]7-point Likert-type scale (1 = *a lot younger than my age*, 7 = *a lot older than my age*). [c]Variable measured support received from family and/or friends outside the Extension office.

Models: Hierarchical Regression

The primary objective of the study was to determine organizational change and personal predictors of agent innovativeness regarding implementing caregiving education initiatives. We used hierarchical multiple regression to examine the associations between organizational change and personal factors and agents' innovativeness. We organized the independent variables in three blocks based on theory: demographics (block 1), organizational change factors (block 2), and personal factors (block 3). By organizing the variables in blocks, we were better able to examine the influence of each block on the dependent variable, innovativeness, while ignoring the influences of the other blocks. Demographic variables were used as controls. All predictor and criterion variables were mean-centered to reduce strong correlations between predictors and interaction terms (i.e., multicollinearity) (Dalal & Zickar, 2012).

Results

Table 4 provides summary statistics about the study variables. Participants reported feeling moderately confident regarding their ability to gather information on a specific topic. Participants perceived moderate pressure from their environment regarding needs for caregiving education. In relation to leading, participants felt they were more than able to lead program efforts due to high support from coworkers, family members, and friends. Participants reported not only that they felt young enough to lead new programs but also that they perceived themselves as innovative.

Table 4.

Descriptives for Organizational Change and Personal Factor Study Variables (N = 216)

Variable	No. of responses	*M* (*SD*)	Range
Information-gathering ability	206	11.330 (3.269)	3-18
Leadership self efficacy	204	77.969 (16.295)	17.5-100
Environmental pressure	194	26.840 (6.407)	10-41
Interoffice support	190	19.747 (5.217)	2-25
Subjective age	188	3.447 (.85)	1.43-6.14
Work-related stress	192	15.802 (5.274)	5-28
Social support	188	39.516 (5.206)	25-48
Innovativeness	187	34.428 (4.767)	11-45

Table 5 shows the results of agents' innovativeness regressed on organizational change and personal factors. Blocks 2 and 3 were statistically significant. This result indicates that demographics, organizational change factors, and personal factors may influence innovativeness. In our sample, block 2, $F(9, 153) = 2.35$, $p = .02$, and block 3, $F(12, 150) = 4.10$, $p = .00$, were statistically significant. The predictors in block 2 explained 7% of the variance in innovativeness ($R^2 = .12$). County type ($\beta = .19$, $p = .02$), years in current position ($\beta = -.22$, $p = .02$), and leadership self-efficacy ($\beta = .17$, $p = .04$) were found to significantly predict innovativeness. Predictors in block 3 explained 19% of the variance in innovativeness ($R^2 = .25$). County type ($\beta = .16$, $p = .03$), years in current position ($\beta = -.19$, $p = .04$), subjective age ($\beta = -.24$, $p = .00$), and social support ($\beta = .30$, $p = .00$) were found to significantly predict innovativeness.

Table 5.

Predicting Innovativeness Through Organizational Change and Personal Factors (N = 163)

	Model 1		Model 2		Model 3	
Predictor	**β(*t*)**	***SE***	**β(*t*)**	***SE***	**β(*t*)**	***SE***
Controls (block 1)						
Age	.15(1.63)	.04	.14(1.49)	.04	.09(.93)	.04
County type	.18(2.33)*	.83	.19(2.45)*	.83	.16(2.15)*	.78
Assignment: Client	.02(.29)	.74	-.04(-.54)	.78	-.03(-.42)	.74
Assignment: Percent FCS	-.07(-.87)	.01	-.09(-1.13)	.01	-.10(-1.34)	.01
Years in current position	-.18(-1.93)	.04	-.22(-2.34)*	.04	-.19(-2.12)*	.04
Organizational change (block 2)						
Information-gathering ability			.08(1.07)	.12	.07(.95)	.11

Leadership self-efficacy	.17(2.10)*	.02	.06(.73)	.02
Environmental pressure	.14(1.66)	.06	.14(1.68)	.06
Interoffice support	-.08(-.97)	.07	-.15(-1.94)	.07
Personal factors (block 3)				
Subjective age			-.24(-2.96)**	.45
Work-related stress			.14(1.72)	.07
Social support			.30(3.79)***	.07
F	2.20	2.35*	4.10***	
R^2	.07	.12	.25	
Adj. R^2	.04	.07	.19	
DR^2	.07	.06	.13	

*$p < .05$. **$p < .01$. ***$p < .001$.

Discussion

The results indicate that organizational change and personal factors are essential to FCS agents' innovativeness in developing educational programs related to caregiving. Results are inconsistent with the theoretical framework proposed by Pettigrew et al. (1992). Pettigrew et al. (1992) developed their organizational change theory using an entity that does not readily implement change (i.e., hospital). Carlstrom and Olsson (2014) proposed that large health systems are created with different cultures and traditions that can complicate the change process. In contrast, FCS agents are constantly implementing change due to shifting environmental pressures (Rowe, 2010). Extension FCS agents and specialists have faced increasing pressure from funding entities for greater program effectiveness and accountability through evidence-based programs (Fetsch, MacPhee, & Boyer, 2012). As Fetsch et al. (2012) discussed, agents select and adapt programs on the basis of local community needs. Because of Extension's organizational structure, typically only one agent per area of expertise (i.e., FCS, 4-H youth development, agriculture) is assigned to one county or region. Thus, FCS agents are alone in implementing any programmatic changes, supporting our finding that leadership self-efficacy is a predictor of innovation.

It is not surprising that junior agents were more innovative than their senior peers. This finding is supported by Lehman's (1953) examination of creative performance over time: rapid growth in creative performance initially followed by a short plateau of high activity and then a steady decline for the remainder of the career. da Costa, Páez, Sánchez, Garaigordobil, and Gondim (2015) noted that an organization rich in resources and support for employee creativity (i.e., novel ideas that are deemed as suitable solutions to a problem) can foster innovation (i.e., successful implementation of creative ideas). However, it is the interaction of creativity and personal factors that reinforce innovation.

Personal factors may have a greater impact on innovation in organizations that are more receptive to change. FCS agents continue to implement programming based on community needs, despite experiencing greater workloads and longer work hours (Ensle, 2005; Fetsch, Flashman, & Jeffiers, 1984; Strong & Harder, 2009).

Work-related stress was not a significant predictor of innovation. This nonsignificant finding may be the result of FCS agents' using coping strategies, such as time management or humor (Torretta, 2014). Social support also may act as a buffer between work-related stress and innovation.

Social support received in the home was shown to promote innovation by allowing the FCS agents to focus resources in one domain (i.e., work). However, social support in the office resulted in lower innovation. McGuire (2007) observed that providing support to colleagues can aid in completing work tasks, thus promoting productivity and innovation. Decreased innovation may possibly be linked to FCS agents' workloads. As mentioned previously, FCS agents work long hours and have increased duties due to various budget cuts and periodic hiring freezes. Providing assistance to colleagues may limit time FCS agents have to develop or deliver more educational programming.

Limitations

Our study has provided preliminary evidence concerning the influence of organizational change and personal factors on agents' innovativeness. It is, however, important to acknowledge the study's limitations. First, methodological limitations include cross-sectional design, online survey format, and unknown response rate. A cross-sectional design limits interpretation of the data and is not generalizable to the population. The online survey format may have been ineffective in generating a high enough response rate (Nulty, 2008), creating a high probability of statistical biases (Baruch & Holfom, 2008). Second, participants were not assessed regarding current caregiving programs. Extension offices that already deliver a caregiver program may be less likely to implement a caregiver program, reducing agents' innovativeness. Lastly, we did not use a comparison group to assess whether the findings were applicable to educational groups similar to Extension.

Implications for Extension

Our findings indicate that organizational change factors influence agents' choices of programming. Of the organizational change factors, only leadership self-efficacy and interoffice support predicted innovation. For agents who do not perceive themselves as efficacious leaders, mentors may be beneficial in helping build new hires' leadership self-efficacy. Time in Extension resulted in reduced innovativeness. It may be important to implement training programs to keep educators engaged and innovative throughout their careers. Training opportunities could include both formal and informal education. For example, classroom training could be paired with visits to families' homes where successful caregiving occurs. As for support, both at home and in the office, more research is needed to determine the types of support most beneficial to agents as well as workplace practices that promote productivity and innovativeness.

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