A Comparison of Job Stressors Experienced by Male and Female Beginning Agriculture Teachers

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Research Type: Quantitative
Research Priority Area (RPA): Teacher Education and School-Based Agricultural Education

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Abstract

The purpose of this study was to determine if stressors differ among new teachers based upon gender. Male and female participants were similar demographically in that average respondents for both groups were married, between 25 and 34 years old, had bachelor's degrees, lived in rural areas, and have taught agricultural education from one to five years. Participants were asked to indicate stress levels associated with job responsibilities constructs using a Likert scale where 1=least stressful and 5=most stressful. Gauging differences in stress associated with several different constructs of stressors, there was little difference between groups. Stressors included in the FFA construct held similar levels of stress for male and female participants except for the item: FFA responsibilities, which was significantly more stressful to women respondents (M=3.49) than men respondents (M=2.73). Two stressors related to time management emerged as significantly more stressful to female ag teachers; demands of class load/time and overburdened workloads. The constructs related to finances, student interactions, curriculum development and administrative support did not hold any items with significantly different stress levels for male and female agriculture teachers. While respondents indicated similar perceptions of stress related to job responsibilities, in the instances where differences did occur, female teachers were the group which felt increased stress levels. The broad nature of the items of greater stress indicated that emphasis on time management skills and stress management techniques would be beneficial for female agriculture teachers, in particular.

Introduction

Most jobs have some level of occupational stress, but research has shown that some jobs are more stressful than others (Johnson, Cooper, Cartwright, Donald, Taylor, & Millet, 2005). While early research determined the presence of occupational stress, it failed to explore if the phenomenon of stress existed in specific job environments (Haw, 1982). Building upon that eary research into occupational stress, multiple researchers have confirmed that the occupation of teaching is a high stress profession (Kyriacou, 2000; Johnson et al., 2005; Klassen and Chiu, 2010; Liu & Ramsey, 2008).

Teachers' Stress

Teaching is one of the oldest professions and can be linked back to ancient theologists such as Socrates and Aristotle in ancient Greece. Researchers have studied the student/teacher relationship, the theory of self-efficacy, and different teaching styles. However, it was not until the mid-1970s that research studies began to explore and define the concept of teachers' stress (Kyriacou, 2000). Teachers' stress is defined as "the experience by a teacher of unpleasant, negative emotions, such as anger, anxiety, tension, frustration, or depression, resulting from some aspect of their work as a teacher" (Kyriacou, 2001, p. 28).

Johnson, et al. (2005) conducted a study to compare the levels of occupational stress among 26 diverse occupations. Of the 26, six of the occupations were identified as being

high stress. The occupation of teacher was listed as an extremely high stress occupation (second in the study after ambulance worker) with teacher participants scoring low on physical and psychological well-being as well as having a low level of job satisfaction. Klassen and Chiu (2010) studied teachers and specifically looked at the levels of self-efficacy as compared to levels of stress. Their study found that teachers who had low self-efficacy also exhibited high levels of teachers' stress and low levels of job satisfaction.

There are many factors that can contribute to teachers' stress including high levels of pressure, extreme demands, a heavy workload, and the lack of time to adequately prepare for occupational duties (Kyriacou, 2005; Johnson, et al., 2005). Liu and Ramsey (2008) also cite poor work conditions, little time to plan or prepare curriculum, and heavy teaching loads as additional factors that have the potential to increase levels of teachers' stress. Furthermore, stress can be caused by personal interactions with stakeholders such as administrators, colleagues, students, and parents (Klassen & Chiu, 2010). Legislators also contribute to the phenomenon of teachers' stress with an increased emphasis on standardized testing. Consequently, many teachers are overburdened with the heavy amount of paperwork they are now required to complete (Johnson, et al., 2005). All of these stressors have the potential to increase teacher turnover by decreasing an individual's level of satisfaction with teaching (Liu & Ramsey, 2008).

Occupational stress can lead to the phenomenon of burnout (Antoniou, Polychroni, & Vlachakis, 2006; Timms, Graham, & Caltabiano, 2006). Burnout is common in jobs where the work is focused on people (Mearns & Cain, 2003). It is emotional exhaustion that is typically a response to being a victim of chronic stress (Mearns & Cain, 2003). Burnout consists of three elements: emotional exhaustion, depersonalization, and the sense of a lack of personal accomplishment (Johnson, et al., 2005). New teachers are particularly susceptible to burnout because of the high demands they may face (Mearns & Cain, 2003). Burnout can be detrimental to an organization because it can eventually lead to widespread employee turnover (Antoniou, et al., 2006; Johnson, et al., 2005).

Teachers' Stress and Gender

While the concept of teachers' stress was being explored in the mid-1970s, the early researchers failed to investigate if the levels of teachers' stress existed equally between males and females (Haw, 1982). Okpara, Squillance and Erondu (2005) conducted a study with over 1,000 faculty members from 80 different universities within the US. This study found that women in higher education report higher levels of stress related to their job when compared to their male colleagues. Furthermore, the women in this study also reported lower levels of job satisfaction when compared to their male counterparts (Okpara, et al., 2005). Female faculty members cited lower levels of job satisfaction based on a variety of factors including supervision, pay, and opportunities for professional growth (Okpara, et al., 2005). These findings are consistent with the study conducted by Antoniou, Polychroni & Vlachakis (2006). Antoniou, et al. (2006) studied secondary education teachers in Greece and found that female teachers experienced higher level of stress, heavier workloads, more frustrations with student progress, and an increase in emotional exhaustion when compared to male teachers within the same educational system.

In both studies, the higher levels of stress experienced by female teachers was attributed to the fact that females typically have to balance family and professional responsibilities more so than their male counterparts (Okpara, et al., 2005; Antoniou, et al., 2006). This is not a new concept as Haw (1982) claimed that women have a very different working role than their male counterparts, in that the female working role often spans both work and home-related duties. Other reasons for higher teachers' stress levels among females can be attributed to the results of a heavier workload, demands for increased student progress, and behavioral difficulties in the classroom (Antoniou, 2006).

Theoretical Framework

Research by Maslow and Herzberg more than 50 years ago suggest that satisfied and stress free employees tend to be more productive, creative, and committed to their employers' (Alshallah, 2004). Unfortunately, to be truly stress free in an organization is an impossibility (Moorhead, 2007).In order to gain insight into sources of stress and their impact, Quick and Quick (1984) developed a model of organizational stressors and the consequences of the stressors on the individual and the organization.

Quick and Quick (1984) identified four types of organizational stressors: task demands, physical demands, role demands, and interpersonal demands. Task demands are stressors specifically associated with the job a person performs. These include occupation typology, job security, and overload (having more work assigned than the person is capable of completing). Physical demand stressors include the physical requirements of the job including temperature of working conditions, strenuous labor, office design and space, and work hours. Role demand stressors are identified as the set of expected behaviors, written or insinuated, associated with the position including role ambiguity, role conflict, and role overload (expectations for success exceed the capability of the individual). Group pressures, leadership style of the manager/superior, and personality conflicts are identified by Quick and Quick as interpersonal demands and potential stressors. Individual stressors or life stressors are categorized as life change and life trauma.

Quick and Quick (1984) conclude that each type of stressor has unique consequences. These consequences can impact the individual as well as the organization. Behavioral, psychological, and medical are individual consequences of both organizational and life stressors. Organizational consequences including burnout and organizational mortality as well as organizational decline are detriments caused by organizational and life stressors.

The current research defines teachers' stress and explores the difference in the level of teachers' stress between males and females. For purposes of this study, the researchers have identified "task demands" stress as defined by Quick and Quick (1984). However, the research team found limited research regarding teachers' stress (task demand) and its relation to gender differences among new agricultural education teachers.

Purpose

The purpose of this study was to determine if stressors differ among new teachers based upon gender. This study looked at six constructs of stressors and compared responses from male and female participants to see if differences existed. The following objectives guided this study:

1. Describe participant demographics for both male and female respondents;
2. Determine if differences exist in how men and women perceive stressors related to FFA;
3. Determine if differences exist in how men and women perceive stressors related to time;
4. Determine if differences exist in how men and women perceive stressors related to financial constraints;
5. Determine if differences exist in how men and women perceive stressors related to student interactions;
6. Determine if differences exist in how men and women perceive stressors related to curriculum development; and
7. Determine if differences exist in how men and women perceive stressors related to administrative support

Procedures

The target population of this study was agriculture teachers in Georgia who had been teaching from one to five years. A list of all the new and beginning agricultural education teachers in Georgia was obtained from the Georgia department of education staff and a total of 142 agriscience teachers fit the criteria for this study. In order to reach a large number of potential participants, a convenience sample of beginning teachers in attendance at the Georgia Vocational Agriculture Teachers Association Summer Conference was selected to participate. The conference serves as a single event providing access to the highest number of agricultural educators at one time. The inclusion of professional development activities specifically for beginning teachers made this the best opportunity to reach the greatest number of the target population. A total of 77 questionnaires were collected which accounted for 54% of the total population being studied. Due to the use of a convenience sample and a single attempt to collect data, no attempt was made to address non response. Due to the nature of the sample and the single point collection of data, no attempt should be made to generalize the study findings beyond the participants.

The questionnaire was developed by a panel of experts consisting of university faculty and a graduate student; all with past classroom teaching experience and expertise in agricultural education. The questionnaire compiled 34 stressors into six constructs involving dominant categories of job responsibilities for agricultural educators. Participants were asked to indicate the level of stress for each stressor using a 5-point Likert-type scale with 1 being least stressful and 5 being most stressful. The instrument also asked for selected demographic data and information on support available from local school districts, state staff, and university faculty, which is not reported in this study. As previously stated, paper copies were distributed to participants during the Georgia Vocational Agriculture Teachers' Association Summer Conference and collected upon

completion. Data were coded and analyzed using SPSS 14.0 software. Frequencies and percentages were calculated and reported for demographic data. A two-tailed independent t-test was used to compare means for each of the stressors. The alpha level was set *a priori* at .05.

Results/Findings

Objective 1

Objective one sought to describe the participant groups in this study. The average male participant was a Caucasian between 25 and 34 years of age with a bachelor's degree, lived in rural areas and were married. The average female participant was a Caucasian between 25 and 34 years old with a bachelor's degree, lived in rural areas and were married (Table 1).

Table 1

	Male		Female	
Characteristic	*F*	%	*F*	%
Ethnicity				
Caucasian	37	100	38	97
African-American			1	3
Age				
<25	10	27	9	23
25-34	22	60	24	62
35-44	3	8	4	10
45-54	2	5	1	3
55+	0	0	1	3
Level of Education				
Bachelor's	19	51	26	67
Master's	12	32	12	31
Specialist	5	14	1	3
Doctorate	1	3		
Marital Status				
Married	21	57	30	77
Unmarried	15	43	9	33
Size of Community				
Rural	23	62	25	64
Suburban	12	32	11	28
Urban	2	5	3	8

Objective 2

There were seven stressors included in the FFA related stressors category. Of the seven stressors in this construct, there was a significant difference between males and females on only one. While the t-values for the specific FFA activity stressors did not indicate any significant differences in means, the more general stressor of FFA Responsibilities

was found to be significant with a t-value of -2.65 (p= .01). Table 2 summarizes the comparison of all seven FFA related stressors.

Table 2

	Male		Female			
FFA Related Stressors	*M*	*SD*	*M*	*SD*	*T*	*P*
FFA responsibilities	2.73	1.17	3.49	1.32	-2.65	0.01**
Planning FFA banquets	2.76	1.16	3.21	1.24	-1.62	0.11
Supervising SAE projects	2.62	0.95	2.79	1.00	-0.77	0.44
Preparing FFA proficiency applications	3.40	1.46	3.24	1.50	0.45	0.66
Developing SAE opportunities for students	2.97	1.07	2.77	1.11	0.82	0.42
Organizing fundraisers	2.97	1.07	3.44	1.10	-1.78	0.08
Organizing student internships	2.21	1.24	2.51	1.07	-1.09	0.28

Note. Scale: 1= Least stressful, 5= Most stressful
***p*<.01

Objective 3

Objective three sought to determine if differences existed in male and female teachers' perceptions of time related stressors. There were seven stressors included in the time stressor construct and significant differences existed for two of the stressors. Demands of class load/time and overburdened workloads were the significant stressors with t-values of -2.00 (p = .05) and -2.71 (p = .01) respectively (Table 3).

Table 3

	Male		Female			
Time Related Stressors	*M*	*SD*	*M*	*SD*	*T*	*p*
Time Constraints	3.49	1.15	3.97	1.04	-1.95	0.06
Demands of class load/time	3.20	1.05	3.67	0.96	-2.00	0.05*
Inadequate class length	2.19	1.13	2.13	1.13	0.24	0.81
Class scheduling	2.50	1.08	2.87	1.10	-1.47	0.15
Overburdened workloads	3.19	1.08	3.87	1.09	-2.71	0.01**

Excessive paperwork	3.24	1.19	3.54	1.02	-1.16	0.25
Teacher meetings/conferences	1.73	0.84	1.87	1.10	-0.63	0.53

Note. Scale: 1= Least stressful, 5= Most stressful
* $p<.05$, ** $p<.01$

Objective 4

Objective four sought to determine if differences existed in male and female teachers' perceptions of financial stressors. There were three stressors included in this construct and significant differences were not found for any of the three (Table 4).

Table 4

	Male		Female			
Financial Stressors	*M*	*SD*	*M*	*SD*	*t*	*p*
Inadequate school facilities	2.35	1.27	2.21	1.00	0.56	0.58
Lack of proper teaching materials	2.35	1.18	2.33	1.54	0.07	0.95
Small operating budget	2.57	1.34	2.54	1.14	0.10	0.92

Note. Scale: 1= Least stressful, 5= Most stressful

Objective 5

Objective five sought to determine if differences existed in male and female teachers' perceptions of student interaction stressors. There were four stressors included in this construct and significant differences were not found for any of the four. Table five includes the comparisons for all four student interaction stressors.

Table 5

	Male		Female			
Student Interaction Stressors	*M*	*SD*	*M*	*SD*	*t*	*p*
Lack of student interest	3.00	1.29	2.56	1.02	1.64	0.11
Student discipline	2.89	1.30	3.21	1.17	-1.10	0.28
Student recruitment	2.81	1.33	2.84	1.22	-0.11	0.92
Teaching learning disabled students	2.69	1.24	2.87	1.20	-0.63	0.53

Note. Scale: 1= Least stressful, 5= Most stressful

Objective 6

Objective six sought to determine if differences existed in male and female teachers' perceptions of curriculum development stressors. There were nine stressors included in this construct. No significant differences were found for any of the nine stressors (Table 6).

Table 6

	Male		Female			
Curriculum Development Stressors	*M*	*SD*	*M*	*SD*	*T*	*p*
Creating curriculum from scratch	3.22	1.29	3.15	1.39	0.20	0.84
Teaching new content	2.97	1.04	3.23	1.16	-1.02	0.31
Inexperience/unfamiliarity w/ course content	2.84	1.28	2.97	1.39	-0.45	0.66
Spending time on curriculum development	2.78	1.08	2.82	1.25	-0.14	0.89
Graduation requirements	1.84	1.01	2.29	1.20	-1.75	0.08
State funding applications	1.97	1.03	2.16	1.10	-0.75	0.46
Completing GPS requirements	2.49	1.10	2.85	1.31	-1.30	0.20
Organizing and supervising teaching Laboratories	2.65	1.18	2.82	1.17	-0.64	0.53
Developing performance based assessment instruments	2.56	0.94	2.64	0.99	-0.38	0.70

Note. Scale: 1= Least stressful, 5= Most stressful

Objective 7

Objective seven sought to determine if differences existed in male and female teachers' perceptions of administrative support stressors. There were four stressors included in this construct. Significant differences were not found for any of the four. Table seven includes the comparisons for all the administrative support stressors.

Table 7

	Male		Female			
Administrative Support Stressors	M	SD	M	SD	t	p
Inability to collaborate w/ other teachers	1.89	1.04	2.26	1.29	-1.34	0.18
Lack of administrative support	2.27	1.37	2.56	1.54	-0.88	0.38
Lack of support from guidance	2.70	1.43	2.69	1.22	0.03	0.97
Developing relations with administrators	2.23	0.92	2.25	1.01	-0.10	0.92

Note. Scale: 1= Least stressful, 5= Most stressful

Conclusions/Recommendations

The average participant in this study was a white female; however it should be noted that gender was split almost in half. Over 84% of respondents were less than 35 years old and most held bachelor's degrees from traditional agriculture education programs. Of those participating in this study, over 40% held advanced degrees.

The findings of this study indicate that beginning teachers, both male and female, feel similar amounts of stress from the majority of activities related to being an agriculture education teacher regardless of gender. When looking at stressors related to administrative support, curriculum development, student interactions and financial matters, there were no significant differences in how men or women feel related stress. These findings are different from other research studies (Okpara, 2005; Antoniou, 2006) which found that females exhibited higher levels of teachers' stress related to administrative support, curriculum development, and interactions with stakeholders.

Looking at stressors related to FFA, individual FFA related activities and requirements showed no significant differences in responses of men or women. However, responses from female participants indicated that FFA responsibilities caused them significantly more stress than that indicated by male participants. Garton and Chung (1996) sited preparing FFA degree applications, developing public relations programs and preparing proficiency award applications as the in-service needs of the first year agriscience teachers. Mundt and Conners' (1999) found a plethora of problems faced by first year agriculture teachers, one of which was managing the overall activities of the local FFA chapter. Case and Whitaker (1998) note that teachers point to a lack of support from their school or community for the FFA.

As identified in Table 1, 77% of the female respondents were married in comparison to 57% of the males. Is this added stress for female teachers due to external variables? For example, of those who are married and have young children, are the female teachers more active than their male counterparts in planning childcare? A study of this same group of Georgia agricultural education teachers by Murray, et al. (2011) found that the average female teacher who has taught five years or less has 1-2 children at home, and utilizes daycare for their children. It should also be noted that in the Murray, et al. (2011) study,

female agricultural education teachers reported approximately twice as much responsibility for child transportation and overall childcare as their male counterparts. Additional studies by Okpara, et al. (2005), Antoniou et al. (2006), and Haw (1982) also support the concept that female teachers have higher levels of teachers' stress due to the fact that they must balance that females typically have to balance family and professional responsibilities more so than their male counterparts.

According to Kantrovich (2010), many states are still feeling the pressure of not having an adequate number of teachers to fill vacant agricultural education positions. In 2009, approximately 70% of newly qualified teachers entered the workforce (Kantrovich, 2010). One could argue that the aforementioned stress factors highlighted in this study could contribute to this dilemma. Are college students cautious of entering the profession because of the long hours? On average, agricultural education teachers' in Georgia work a 57 hour work week (Murray, et al. 2011). Are young teachers leaving the profession because it is difficult to balance their career and family obligations? Ingersoll (2001), a nationally recognized expert on teacher shortages, stated that more than one-third of beginning teachers leave during the first three years, and almost half of teachers leave within the first five years.

As identified in this study, the top three stressors were: 1. Demands of class load/time; 2. Overburdened workloads; and 3. FFA responsibilities. As previously stated, female teachers felt the greatest stress from managing their FFA chapters. Are the challenges of maintaining a successful FFA chapter causing undo stress that leads to more female agricultural education teachers leaving the profession in comparison to their male counterparts? Research has proven that increased teachers' stress will eventually lead to burnout (Antoniou, Polychroni, & Vlachakis, 2006; Timms, Graham, & Caltabiano, 2006). Furthermore, new teachers are more susceptible to burnout because of the potential to be exposed to higher levels of teachers' stress (Mearns & Cain, 2003).

Will these levels of teachers' stress cause burnout among females in the agricultural education profession? Future studies should focus on female teachers to get a more in-depth look at what exactly the issues are that contribute to overburdening and if specific FFA responsibilities have a stronger time demand than others. Furthermore, studies should be conducted to determine if these new teachers are beginning to exhibit signs of burnout and also attempt to reach teachers who have left the field to determine if these factors were instrumental in their decision or if other factors exist that have not been identified in this study.

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