

The Effect of Multiple Roles on Women Majoring in Education

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Traditional- and nontraditional-age undergraduate women majoring in education were surveyed to determine whether multiple-role incumbency is associated with student role strain and with affective well-being. Traditional-age students reported significantly more student role strain even though they occupied fewer life roles and reported the perception of less time pressure. Multiple-role incumbency was not related to student role strain for either group but was related positively to well-being in the nontraditional-age group. Findings are discussed in terms of theory and apparent significance for advisors.

The relationship between multiple roles (e.g., spouse, parent, employee, and student) and unhealthy stress is of particular relevance to women. Goode (1960) and Coser (1974) stated that increasing the number of life roles is necessarily associated with undesirable role strain. Marks (1977) has labeled this hypothesis the "scarcity" model because it assumes personal energies are fixed and limited. The scarcity model predicts that increasing role demands will unavoidably prompt a stressful overdemand experience.

Sieber (1974) takes virtually the opposite position, that role accumulation is associated with net gratification. This second view has been labeled the "expansion" model (Marks, 1977). It rejects the assumption that human energy is fixed in an individual, instead viewing such energy as an expandable attribute. Marks explains that this model generally predicts that performance of multiple roles will increase personal energy and thereby decrease the level of experienced stress.

The majority of empirical studies specifically addressing multiple-role performance and stress have focused on adult women and have not considered student role strain specifically (Barnett & Baruch, 1985; Kandel, Davies, & Raveis, 1985; Spreitzer, Snyder, & Larson 1979; Thoits, 1983). Each of these studies, however, found that women performing multiple roles reported less stress or more general well-being. Therefore, they provide a body of support for the expansion model.

The few empirical studies with women in which multiple roles were related to student ex-

perience have also relied completely on adult participants (Fortune, 1987; Kirk & Dorfman, 1983; Koeske & Koeske, 1989). Koeske and Koeske studied graduate students in social work, as did Fortune, and both studies used samples that were 84% female. Fortune reported findings that supported the expansion model. Koeske and Koeske interpreted their findings to support both conceptual models, indicating that the relationship between stress and multiple roles was sensitive to particular settings. Kirk and Dorfman reported that undergraduate women of nontraditional-age (25 years or older) cited a positive correlation between multiple roles and strain as a student. The authors also reported a positive correlation between age and student strain but subsequently interpreted their findings to support the expansion model.

In contrast to a majority of empirical studies favoring the expansion model of multiple roles and role strain, several impressionistic articles concerned with supportive services have advocated views consistent with the scarcity model (Brooks, 1976; Glass & Rose, 1987; Greenhaus & Beutell, 1985; Lewis, 1988; Rawlins & Lenihan, 1982). In these studies, responsibilities associated with multiple-role performance were cited as sources of conflict and stress believed to interfere with student adjustment in higher education settings.

Although the great majority of studies in this area have focused on adult women, predictions from expansion and scarcity perspectives also have clear significance for traditional-age students (24 years or younger) who are women. Although nontraditional-age women have been the fastest growing group of students in higher education (National Center for Educational Statistics, 1989), traditional-age women still remain the largest single group of undergraduates ("College Enrollment Projections," 1990). The expansion model is consistent with the assertion that younger women will experience greater stress than their older classmates because they typically occupy fewer life roles and, therefore, should fail to experience the alleged benefits of multiple roles. Conversely, the scarcity model predicts that younger students will experience

less stress than older students because executing few roles is believed to conserve energy.

The current study considered the relationship between multiple-role incumbency, student role strain, and general well-being in comatriculating groups of traditional-age and nontraditional-age women majoring in education. Age and perception of time pressure were also analyzed within groups because of their importance in previous studies (Fortune, 1987; Schlossberg, Lynch, & Chickering, 1989). Consistent with our introductory remarks, several opposite predictions arise from expansion and scarcity models.

Method

Participants

Two samples of students were obtained from a population of undergraduate women majoring in education at 20 campuses of a mid-Atlantic university. The entire population was first stratified into students 25 years or older ($n = 107$) and students 24 years or younger ($n = 2,278$). These groups will often be identified in the text that follows with the adjectives older and younger because these labels are terse and literally accurate. During the second week of the spring 1990 semester, a copy of the study questionnaire was mailed to all older students and to 200 students randomly selected from the younger group. The return rate for the former was 79%, resulting in a sample of 85 women. The return rate for the latter was 52%, resulting in a sample of 103 women.

Measurements

Participants completed a 10-item measure of student role strain. The instrument was adapted from a scale developed by Robert G. Green, as reported and used by Fortune (1987). The instrument addressed concerns such as difficulty of schoolwork, grade status, personal ability, and relationships with faculty. Therefore, it measured stress in the specific and immediate context of student role performance. Responses were obtained on 7-point Likert scales anchored at the extremes with the descriptors "never worry about" (1) and "always worry about" (7). The average of all 10 items determined a single student role strain score for each participant. Scores could vary from 1 to 7, with higher scores indicating greater role strain. Internal consistency ($\alpha = .81$) was comparable with previous reported use (Fortune).

Participants also completed Campbell, Converse, and Rodgers' (1976) Index of Well-Being. This nine-question instrument solicited estimates of affective state using 7-point Likert items anchored with descriptors such as boring1 interesting, useless/worthwhile, discouraging1 hopeful, and completely satisfied/completely dissatisfied. The index is intended to produce an aggregate measure of life satisfaction that is resistant to inordinate influence by experiences in the immediate time-frame. Items were averaged, with overall satisfaction weighted more heavily, to yield a general well-being score for each participant. Scores could vary from 1 to 14, with higher scores indicating greater well-being. The alpha coefficient for this measure on this occasion was .91.

Perception of time pressure was assessed with four questions soliciting estimates of time availability for personal, leisure, and study activities. Responses were taken on 5-point Likert scales anchored with "never have enough time" and "always have enough time." Items were added to yield a single score for perceived time pressure that could vary from 0 to 16, with a higher score indicating greater perceived pressure. The alpha coefficient was .88 for this measure.

Finally, the roles of spouse, parent, and employee were considered in determining multiple-role status. Specifically, participants were assigned a value of 1 for each role occupied. Therefore, multiple-role scores could vary from 0 to 3 and indicated the roles occupied in addition to that of student.

Results

Table 1 presents several measures that describe participant characteristics. As expected, older women were more likely than younger women to be married and to have children. Younger women, on the other hand, were more likely to be employed. The majority of individuals in both groups were enrolled full-time. However, younger students were more likely to be enrolled full-time. Older students were more likely to commute than younger students. As expected, younger women occupied significantly fewer life roles. Average student role strain reported by the younger group was significantly greater. At the same time, however, younger women reported a much lower perception of time pressure. Average well-being scores obtained for the two groups were nearly identical.

Pearson correlation coefficients are presented

TABLE 1
Comparison of Nontraditional-Age and Traditional-Age Students

Variable	Nontraditional-Age (n = 85)	Traditional-Age (n = 103)	<i>t</i> ^a
Percentages			
Married	60.0	2.9	- 10.20***
Children	80.0	3.9	- 15.85***
Employed	37.6	52.4	2.06*
Full-time student	87.1	97.1	2.50**
Commute	95.3	44.7	- 9.37***
Means			
Student role strain	3.68	4.14	3.22***
General well-being	10.51	10.47	- 0.10
Age	34.62	18.58	- 19.71***
Number of roles	1.75	.59	- 11.60***
Perceived time pressure	11.93	9.20	5.83***

^a values in upper section were generated with the formula for sample proportions, while in the lower section values were generated with the formula for sample means (Kachigan, 1986).

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

in Table 2. Results for younger women are presented in the upper matrix. In the upper matrix the only significant correlation was negative and occurred between student role strain and general well-being. Squaring this coefficient produces a value that reflects the degree of shared variation or overlap between the two measured attributes. Accordingly, 25% of the variation in role strain reported by the younger students corresponded with individual differences in general well-being. Age, multiple-role status, and perceived time pressure were not correlated significantly with each other, nor were they statistically associated with student role strain or general well-being.

In contrast, the values in the lower matrix of Table 2 show that several significant correlations were obtained within the group of older women. Student role strain and general well-being were negatively correlated again; however, the amount of shared variation between these measures was reduced to 14%. Age was negatively associated with student role strain at an .001 level of significance. Older women in the nontraditional-age group reported significantly less student role strain than younger women in the same group. Although it correlated positively with age, multiple-role status was not related significantly to student role strain.

Table 2 also shows that positive correlations existed for the older group between age and well-being and between well-being and number of roles. Finally, the lower matrix indicates that perceived time pressure was positively correlated with student role strain and negatively correlated with general well-being in this group. However, perceived time pressure did not vary with age or with number of roles occupied.

Table 2 indicates that within the older student group age, number of roles, and perceived time pressure, with only one exception, correlated significantly with both student role strain and general well-being. Therefore, except in the case of number of roles and student role strain, each of the first three variables just mentioned could be used to predict levels for the last two variables. However, because age, number of roles, and perceived time pressure were also correlated with each other, the degree to which each contributed an apparently independent predictive component cannot be determined from this table. In such a circumstance, multiple regression analysis is an appropriate statistical tool for estimating the apparently independent contributions of more than one influence variable toward the prediction of a single, continuous, dependent measure. Multiple regression analysis also provides an estimate of how well

TABLE 2
Pearson Correlation Coefficients and Standard Deviations for Traditional-Age and Nontraditional-Age Students

Variable	1	2	3	4	5
Traditional-Age Students (n=103)					
1. Student role strain	1.00				
2. General well-being	-.50***	1.00			
3. Age	.05	.04	1.00		
4. Number of roles	-.11	-.07	.07	1.00	
5. Perceived time pressure	.02	-.03	.00	.15	1.00
SD	.97	2.87	1.35	.59	3.39
Nontraditional-Age Students (n=85)					
1. Student role strain	1.00				
2. General well-being	-.37***	1.00			
3. Age	-.43***	.23*	1.00		
4. Number of roles	-.05	.27*	.32**	1.00	
5. Perceived time pressure	.25*	-.27*	-.02	.01	1.00
SD	.96	2.68	8.13	.79	2.94

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

several variables can predict another variable if their apparently independent contributions are combined mathematically.

Table 3 presents two multiple regression analyses for only the older group. In the upper analysis the prediction of student role strain from age, perceived time pressure, and number of roles is presented. In the lower analysis the same three influence variables have been entered to predict general well-being. The absence of significant Pearson correlations between the same variables for the younger women obviates the relevance of such analyses with that group.

The upper set of figures in Table 3 indicates that a significant, independent, negative correlation existed between age and student role strain within the older group. Clearly, age was the most significant single predictor of student role strain, and older women reported less strain than younger women. Table 3 clarifies further that perceived time pressure was a second significant predictor of student role strain, independent of participant age. Older women who reported a greater perception of time pressure reported greater student role strain regardless of their age. Furthermore, it is apparent that multiple-role incumbency contributed little to the prediction of student role strain, independent of the contributions of age and perceived

time pressure. Finally, the r^2 value indicates that the combined predictive strength of these three variables accounted for 26% of the variation in student role strain that was encountered among the older women.

The second multiple regression analysis, presented in the lower portion of Table 3, indicates that a different relationship existed between the same three influence variables and general well-being. In this case perceived time pressure was the most significant single predictor of general well-being. Older women reporting greater time pressure were more likely to score lower on this index. Multiple-role incumbency emerged as a second significant predictor of general well-being, independent of perceived time pressure. Consistent with the expansion hypothesis, older women who were performing more roles reported higher levels of general well-being. Finally, age did not contribute significantly toward the prediction of general well-being after the contributions of perceived time pressure and role incumbency were removed.

Discussion and Conclusions

Certain study limitations should be noted. First, standard deviation values in Table 2 showed that age was more restricted in the

TABLE 3
Multiple Regression of Influence Variables on
Student Role Strain and General Well-Being for
Nontraditional-Age Students (n = 85)

Influence Variable	Standardized Beta	t
Predicted Variable = Student Role Strain		
Age	-.46	-4.56***
Perceived time pressure	.25	2.56**
No. of additional roles	.09	0.92
$r^2 = .2580$		
Predicted Variable = General Well-Being		
Age	.16	1.46
Perceived time pressure	-.28	-2.71**
No. of additional roles	.22	2.10*
$r^2 = .1718$		

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

younger group than in the older one. Although the unavoidably greater range of age values in the older group may have empowered this variable in certain analyses, conclusions presented below do not hinge on this circumstance.

Second, the study instrument was completed by participants during the first half of the second semester in the academic year. Stress and strain are probably more likely to increase at certain times in a semester, especially toward the end. Therefore, stress levels reported here, particularly those associated with student role strain and time pressure, may not be typical of those experienced at other periods in the academic year.

Third, older women majoring in education may be especially likely to postpone enrollment in higher education while their children are young (Hooper, 1979). Therefore, caution is warranted in generalizing findings to groups of older women more likely to attend college while their children are preschool age.

The current study attempted to test predictions from expansion and scarcity models regarding the relationship between multiple-role status and stress. The only study outcome supporting either theoretical notion occurred in favor of the expansion hypothesis and was the finding that women in the older group who performed more roles were more likely to report higher levels of general well-being. Within the same group, however, number of roles per-

formed was not related significantly to the more contextual measurement of student role strain, and number of roles was unrelated to any measure of stress for the group of younger women. In both groups, therefore, women who performed more roles were no more or less likely to report increased student role strain than those who performed fewer roles. Overall, these findings suggest that the number of roles, as an independent factor, was not the most important personal characteristic associated with stress. This was particularly true when the measure of stress was defined specifically in terms of student experience.

Certain additional findings may have significance for women in higher education and for advisors serving this population. First, student role strain was significantly greater among younger women than among older ones. Furthermore, among the older women this strain declined further-as age increased. Contrary to several assertions (Brooks, 1976; Glass & Rose, 1987; Greenhaus & Beutell, 1985; Lewis, 1988; Rawlins & Lenihan, 1982), older women, particularly those who were the oldest, were better able to avoid student role strain as baccalaureate, education majors. Perhaps they brought a variety of resources and experiences to the student role that their younger counterparts lacked. Perhaps years of attempting to meet family needs and previous experience working outside the home prepared them for success in higher

education. Whatever the underlying explanation, increasing age, independent of its correlation with other variables, was the most significant predictor of perceived success in meeting student role demands.

Other findings of potential importance concerned perception of time pressure. Older women reported higher levels of perceived time pressure than younger women did, even while they reported less student role strain. These results appear to be consistent with observations that older students are more motivated and **effortful** in school (Astin, 1976; Leppel, 1984; Marple, 1976; Pirnot, 1987). However, they also suggest that older students, however ironic it may seem, may be able to interpret perceptions of increasing time demand as simply a normal indication of successful school adjustment. Stated more generally, it might be useful in certain advising situations to inform students that perception of time pressure under some circumstances may be inversely related to the amount of actual strain associated with the student role.

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