

The Role of the Psychiatrist: Job Satisfaction of Medical Directors and Staff Psychiatrists

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ABSTRACT: In a previous survey of Columbia University Public Psychiatry Fellowship alumni, medical directors reported experiencing higher job satisfaction compared to staff psychiatrists. To further this inquiry, the authors conducted an expanded survey among the membership of the American Association of Community Psychiatrists (AACP). We mailed a questionnaire to all AACP members. Respondents categorized their positions as staff psychiatrist, program medical director or agency medical director, and rated their overall job satisfaction. The form also included a number of demographic and job characteristic items. Of 479 questionnaires mailed, a total of 286 individuals returned questionnaires (61%—12 forms were undeliverable). As in our previous survey, medical directors experience significantly higher job satisfaction compared to staff psychiatrists. Program and agency medical directors do not differ significantly. In addition, job satisfaction is strongly and negatively correlated with age for staff psychiatrists but not for medical directors. This survey strengthens the previously reported advantage medical directors have over staff psychiatrists regarding job satisfaction. The finding that job satisfaction decreases with increasing age of staff psychiatrists but not medical directors is particularly interesting, suggesting that staff psychiatrist positions may come to be regarded as “dead-end” over time. Psychiatrists are advised to seek promotions to program medical director positions early in their careers, since these positions are far more available, and provide equal job satisfaction, compared to agency medical director positions.

KEY WORDS: role of psychiatrist; job satisfaction; medical director; AACP.

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INTRODUCTION

The Importance of Job Satisfaction

Job satisfaction is one of the most frequently studied variables in organization literature. Its importance is enhanced by the common belief that it has a major impact on job performance. There is, in fact, considerable evidence of the truth of this belief. A number of longitudinal studies have shown that low job satisfaction leads to high turnover (Crampton & Wagner, 1994; Hulin, Roznowski & Hachiya, 1985), which detracts from job performance. Job dissatisfaction has been shown to be correlated with factors that disrupt job performance, such as burnout (Bacharach, Bamberger & Conley, 1991), sick days (Pettersson, Arnetz & Arnetz, 1995), physical symptoms (Begley & Czajka, 1993), emotional states of anxiety (Jex & Gudanowski, 1992), depression (Bluen, Barling & Burns, 1990) and even counterproductive behavior (Chen & Spector, 1992). Although two meta-analyses (Iaffaldano & Muchinsky, 1985; Petty, McGee, & Cavender 1984) evaluating the relationship between job satisfaction and global measures of job performance showed only a modest correlation, Spector, in an excellent and comprehensive book on job satisfaction, comments that this modest correlation may be due to a lack of good measures of overall job performance (Spector, 1997).

Though it is not usually commented upon (possibly because it seems self-evident), job satisfaction also impacts on the individual's health and well-being. We have already noted correlations between job dissatisfaction and sick days (Pettersson, Arnetz & Arnetz, 1995), physical symptoms (Begley & Czajka, 1993) and emotional states of anxiety (Jex & Gudanowski, 1992) and depression (Bluen, Barling & Burns, 1990). Furthermore, job satisfaction correlates with global measures of life satisfaction, and there is evidence that causality occurs in both directions (Judge & Watanabe, 1993).

Thus, the literature supports the belief that job satisfaction is extremely important to both the organization's functioning and to the individual's well-being.

Environmental and Personal Antecedents of Job Satisfaction

There is also a considerable body of literature on both environmental and personal antecedents of job satisfaction. Sarata has shown that job satisfaction of professionals with administrative responsibilities in human service settings is significantly correlated with a constellation

of the following job design variables: variety, task-identity, feedback, autonomy, participation, learning and information (Sarata & Jeppersen, 1977). The most influential variables were variety of tasks performed, opportunities for learning and information about the organization. Professionals without administrative responsibilities generally had lower scores on the constellation of job design variables, and the relationship of the constellation to job satisfaction was not significant. Other studies have shown a correlation with such environmental variables as perceived control (Spector, 1986) as well as autonomy and collaboration (Byers, Mays & Mark, 1999). Job satisfaction is negatively correlated with role ambiguity and role conflict (Jackson & Schuler, 1985), and with organizational constraints (conditions of the job environment that interfere with job performance) (Jex & Gudanowski, 1992). The correlation between job satisfaction and salary tends to be surprisingly small (Spector, 1985).

Link et al. (Link, Lennon & Dohrenwend, 1993) have demonstrated that occupations involving direction, control and planning (DCP) protect employees against depression. DCP occurs when the worker is in a position to negotiate, organize, direct, supervise, formulate practices or make final decisions. It does not encompass jobs in which the planning is for one's own activities exclusively (Handbook for Analyzing Jobs, 1972). Link comments that management of others without DCP does not provide protection against depression. Examples of occupations involving management of others without DCP are consultants and receptionists.

In the realm of personal characteristics, there is considerable evidence that job satisfaction is correlated with personal control at work (the individual's perception of his/her ability to control work reinforcers) (Moyle, 1995; Spector, 1997). Studies of the association of job satisfaction with other personal characteristics have yielded insubstantial results. Two meta-analyses have failed to show any correlation between job satisfaction and gender (Witt & Nye, 1992; Brush & Moch, 1987). One of these meta-analyses also demonstrated a modest, though positive, relationship between job satisfaction and age ($r = .22$) (Spector, 1997). One particularly interesting study found varying results for different groups of workers: a complex curve for elite professionals and a downward sloping curve among ordinary professionals. For each age group job satisfaction was higher among elite compared to ordinary professionals. Among nonprofessionals the relationship was curvilinear—higher for younger and older workers, and lowest in middle age (Zeitz, 1990). The author concluded that “lack of past mobility, little hope for future

mobility and a feeling of low influence" were major determinants of job satisfaction.

Job Satisfaction and Job Type

Katz and Kahn (Katz & Kahn, 1978) define a role as the required pattern of behavior for an individual in an organization. They point out that a role is not synonymous with a title: often a person develops a role by taking on a task that others then assume will be that person's responsibility.

In an effort to examine the interplay of titles and roles, the faculty of the Columbia University Public Psychiatry Fellowship surveyed its alumni on their roles in the organizations within which they work. Respondents were asked to indicate whether they functioned as staff psychiatrists or medical directors. They were also asked to indicate the frequency with which they performed sixteen tasks grouped into three domains (direct service, clinical collaboration and administrative tasks), and the extent to which the performance of each of these tasks contributed to job satisfaction. Respondents were also asked to rate overall job satisfaction separately from the above ratings on individual items.

The survey revealed that respondents who are medical directors perform a greater variety of tasks and report higher job satisfaction than those who are staff psychiatrists. Respondents reported that the domain that contributed the most towards job satisfaction was clinical collaboration (Ranz, Eilenberg & Rosenheck, 1997).

Further analysis of the results revealed that despite respondents' belief that clinical collaboration activities most contribute to job satisfaction, it is in fact the performance of administrative tasks that is most highly correlated with overall job satisfaction. Furthermore, overall job satisfaction is related to the actual performance of administrative tasks and not the job title of medical director alone (Ranz & Stueve, 1998).

Most of the medical directors in the survey had program, rather than agency, level responsibilities. After completion of the survey, the Public Psychiatry Fellowship faculty felt the need for a larger cohort of psychiatrists, representative of psychiatrists in community settings throughout the country, including agency as well as program level medical directors. Towards this goal permission was obtained to survey the membership of the American Association of Community Psychiatrists (AACCP).

THE SURVEY

In February 1998 we mailed a questionnaire to all psychiatrists who are members of the AACP. The survey form¹ was an expansion of that previously completed by Public Psychiatry Fellowship alumni. As in the previous survey, the form consisted of sixteen self-administered items divided into three task domains: *direct service* (4 items including medication, psychotherapy, overseeing medical care and negotiating care with other providers); *clinical collaboration* (5 items including supervising medical and non-medical staff, informal consultations, team meetings and formal training); and *administration* (7 items including policy development, routine administration, quality assurance, negotiating contracts, linkage to outside agencies, regulatory bodies and Boards). For each of the items, the respondent was asked to rate the frequency with which that task was performed (scale of 0 to 8) and the degree to which that task contributed to job satisfaction (scale of -2 to +2). The mean of the individual items within each of the three task domains was recorded as that respective domain score. Cronbach's alphas were good for each of the three task frequency domains: direct service 0.65, clinical collaboration 0.62 and administration 0.88. For contribution to job satisfaction they were: direct service 0.60, clinical collaboration 0.69 and administration 0.85. Respondents were also asked to rate overall job satisfaction separately from the above ratings on individual tasks (range -3 to +3).

The most important expansion from the previous survey concerned job type. We asked AACP respondents to indicate whether their job is best characterized as that of staff psychiatrist (SP), program medical director (PrgMD) or agency medical director (AgMD). If they classified themselves as either of the two types of medical directors, they were also asked for their breadth of supervision, i.e., whether they have supervisory responsibility for only medical staff (identified as MED), for medical and other clinical staff (CLIN), or for all staff—medical, clinical and administrative (ALL). This produced six job types, PrgMD-Med, AgMD-Med, PrgMD-Clin, AgMD-Clin, PrgMD-All and AgMD-All. The survey revealed that it is possible to delineate distinguishable roles and responsibilities for each of these six types of medical director positions (Ranz, McQuiston & Stueve, 2000).

1. A copy of the survey form is available from the authors and through the fellowship's web site at ppf.hs.columbia.edu.

We also asked all medical directors to indicate the extent to which they have control over budgetary decisions (own budget, input over budget, no input over budget). Other information collected included age, gender, hours per week (recalculated as full-time if 30 or above), years in current job title and salary in \$25,000 ranges.

Of 479 questionnaires mailed, a total of 286 individuals returned questionnaires, representing a response rate of 61% (12 forms were undeliverable). Of these 286 forms, 21 were marked "not-applicable" (e.g., not working in an organizational structure, or retired), resulting in 265 completed questionnaires. Of all respondents who completed questionnaires, 40% (n = 106) classified their jobs as AgMD, 23% (n = 62) as PrgMD, 31% (n = 82) as SP and 6% (n = 15) as consultant or other. Since the consultant group was quite small, extremely diverse, with a much more tenuous relationship to their organizations than the other groups, they were excluded from the entire analysis.

In this paper we report the results of this survey with regard to job satisfaction. Table 1 shows sample characteristics by job type for each of the variables that, based upon the literature review, might be expected to impact on job satisfaction.

Hypotheses

Based on the literature, data from our Public Psychiatry Fellowship survey and anecdotal information, we hypothesized the following:

Beliefs. We predict that respondents will report that the performance of clinical collaboration tasks contributes more to overall job satisfaction than does the performance of direct service and administrative tasks. However we further predict that job satisfaction is not correlated with clinical collaboration tasks, negatively correlated with the performance of direct service tasks, and positively correlated with administrative tasks.

The Antecedents of Job Satisfaction

We test two sets of hypotheses in this paper. First, we examine whether predictors of job satisfaction identified in the literature also predict job satisfaction among psychiatrists in public psychiatry. Specifically, we hypothesize that age is negatively related to job satisfaction among staff psychiatrists (ordinary professionals) but not among medical directors (elite professionals), and that gender is not related to job satisfaction.

TABLE 1
Sample Characteristics

	<i>Staff Psychiatrists (n = 79–82)*</i>	<i>Program Medical Directors (n = 61–62)*</i>	<i>Agency Medical Directors (n = 104–106)*</i>
Mean age (s.d.)	45.8 (11.96)	48.7 (10.01)	49.9 (8.31)
% Males	57 (n = 47)	81 (n = 50)	80 (n = 85)
% Full-Time	62 (n = 51)	90 (n = 56)	94 (n = 100)
Mean yrs current job (s.d.)	6.1 (6.73)	5.1 (4.96)	6.4 (5.34)
<i>Breadth of Supervision</i>			
%Medical	NA	40 (n = 25)	35 (n = 37)
%Clinical + Medical	NA	32 (n = 20)	33 (n = 35)
%All	NA	27 (n = 17)	32 (n = 34)
<i>Control over Budget</i>			
%Control own budget	NA	21 (n = 13)	30 (n = 32)
%Input to budget	NA	44 (n = 27)	49 (n = 52)
%No Input	NA	34 (n = 21)	20 (n = 21)
<i>Task Domains</i>			
Mean direct service (s.d.)	5.44 (1.60)	5.14 (1.86)	4.15 (2.28)
Mean clinical collab (s.d.)	4.41 (1.51)	5.44 (1.13)	5.20 (1.51)
Mean administration (s.d.)	1.42 (1.28)	3.30 (1.27)	4.12 (1.58)
Median salary	\$100,000– 125,000	\$100,000– 125,000	\$125,000– 150,000
Mean job satisfaction (s.d.)	1.23 (1.44)	1.75 (1.03)	1.83 (1.00)

*Ns vary depending on item.

We also predict that job satisfaction is associated with several job-related characteristics, including job type (with medical directors more satisfied than staff psychiatrists), years in current job, and performance of administrative tasks. Consistent with the literature, we predict little association between job satisfaction and several other job characteristics, including full vs. part-time status, salary, and performance of clinical and direct service tasks. Among medical directors, we further hypothesize that job satisfaction is positively associated with control over budget (direction, control and planning) but not with breadth of supervision (management of others without direction, control and planning).

In addition to investigating associations between individual antecedents and satisfaction, we present a conceptual model hypothesizing how these personal and job characteristics are related to job satisfaction (see Figure 1). This model suggests that age and gender primarily influence job satisfaction by influencing three employment characteristics: job type (SP, PrgMD, AgMD), full vs part-time status and years in current job. These three employment characteristics, in turn, are hypothesized to primarily affect job satisfaction by influencing four job conditions: breadth of supervision and control over the budget (for medical directors), tasks performed (direct service, clinical collaboration, administration), and salary.

RESULTS

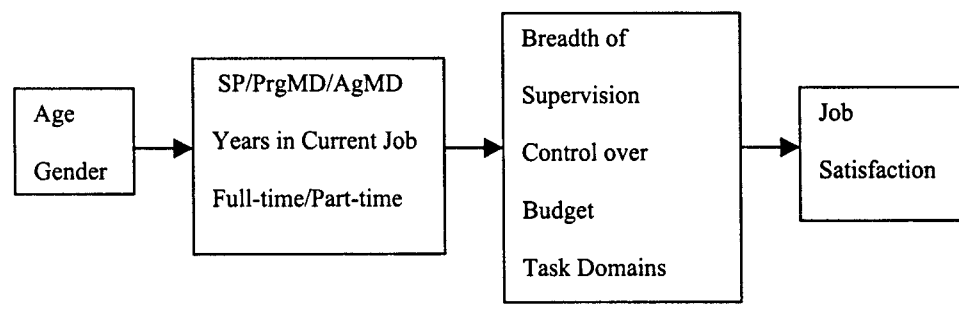
Beliefs

When asked how much each task domain contributes to job satisfaction, respondents score clinical collaboration tasks as most influential (mean = 1.32, sd = 0.55), followed by direct service (mean = 1.01, sd = 0.67) and administration (mean = 0.77, sd = 0.75). The wilcoxon signed ranks test indicates that all pair differences are highly significant ($p < .001$).

Although respondents ascribed greatest importance to clinical collaboration for job satisfaction, correlations between actual frequency of task performance and job satisfaction yield a different pattern. Frequency of engaging in clinical collaboration was not significantly correlated

FIGURE 1

Job Satisfaction Model



with job satisfaction ($r = .099$, ns); however, frequency of involvement in direct service and administration were associated with satisfaction. Respondents who participated more often in administrative tasks reported higher job satisfaction ($r = .278$, $p < .001$), as did those who participated less often in direct service ($r = -.128$, $p < .05$).

The Antecedents of Job Satisfaction

To investigate the relationships between personal and job characteristics and job satisfaction we conducted a series of multiple regression analyses, entering variables in the order suggested by our conceptual model (Figure 1). Respondent's age and gender were entered in model 1, followed by job type (coded as two dummy variables with staff psychiatrists as the reference group), full vs part-time status and years in current job in model 2, and frequency of performing each task domain and salary in model 3. We also included two cross-product interaction terms in the final model to test whether the relationship between age and satisfaction varies by job type. This first analysis does not include breadth of supervision or control over the budget because these variables were not measured for staff psychiatrists.

Table 2 shows the results of the regression analyses. There are no direct effects for age and gender when job-related variables are excluded from the analysis (model 1). In model 2, job type and years in current job are significantly associated with job satisfaction. Program and agency medical directors reported higher job satisfaction than staff psychiatrists, and those with longer job histories reported greater job satisfaction than those with less seniority. Full vs part-time status is not significantly associated with job satisfaction, and gender remains non-significant. Age becomes negatively associated with job satisfaction, however, once these job characteristics are controlled. Model 3 shows the results when task performance and salary are entered. Years in current job remains significantly associated with job satisfaction. Frequent performance of administrative tasks is significantly associated with higher job satisfaction, but performance of direct service and clinical collaboration are not. Salary is also not significantly associated with job satisfaction. In addition, adding these job conditions "explains" the association between job type and job satisfaction; the coefficients for job type decrease substantially and become non-significant once task performance and salary are controlled. This suggests that job type is associated with job satisfaction primarily because it influences what tasks are performed. Finally, model 4 shows a significant interaction

TABLE 2
Regression Analyses of Job Satisfaction^a

	<i>Model 1</i>		<i>Model 2</i>		<i>Model 3</i>		<i>Model 4</i>	
	<i>B</i>	<i>(SE)</i>	<i>B</i>	<i>(SE)</i>	<i>B</i>	<i>(SE)</i>	<i>B</i>	<i>(SE)</i>
(Constant)	2.48	(.53)	1.87	(.55)	1.69	(.67)	3.63	(.84)
Age	-.01	(.01)	-.03	(.01)**	-.03	(.01)**	-.06	(.01)***
Gender	-.12	(.19)	.11	(.19)	.14	(.19)	.03	(.19)
Full time/Part time			.25	(.22)	.14	(.23)	-.03	(.23)
Yrs in current job title			.03	(.02)*	.03	(.02)*	.03	(.02)*
Job type: D_pmd			.60	(.22)**	.32	(.24)	-3.12	(.93)**
Job type: D_amd			.68	(.20)**	.23	(.25)	-1.70	(.90)
Direct service					-.04	(.04)	-.02	(.04)
Clinical collab					.02	(.06)	.00	(.06)
Administration					.14	(.06)*	.16	(.06)*
Salary					.05	(.08)	-.02	(.77)
AgeXd_pmd							.07	(.02)***
AgeXd_amd							.04	(.02)*

^aDependent Variable: overall job satisfaction (*p < .05, **p < .01, ***p < .001).

among age, job type and job satisfaction. Further analyses (not shown) indicate that age is negatively associated with job satisfaction among staff psychiatrists ($r = -.351$, $p < .01$), but is not significantly associated with job satisfaction among program or agency medical directors.

We repeated the analyses for medical directors, adding breadth of supervision and control over the budget to the equations (Table 3). Again, neither age nor gender alone predicts satisfaction (model 1), nor do job type, full vs part-time status or years in current job (model 2). Among the job conditions added in model 3, only control over the budget is significantly associated with job satisfaction; frequency of task performance, breadth of supervision and salary are not.

DISCUSSION

In 1998 we surveyed psychiatrists who were members of the American Association of Community Psychiatrists (AACCP). Our goals were to pro-

TABLE 3
**Regression Analyses on Job Satisfaction for Program
 and Agency Medical Directors Only^a**

	<i>Model 1</i>		<i>Model 2</i>		<i>Model 3</i>	
	<i>B</i>	<i>(SE)</i>	<i>B</i>	<i>(SE)</i>	<i>B</i>	<i>(SE)</i>
(Constant)	1.84	(.54)	1.41	(.81)	2.07	(1.05)
Age	.00	(.01)	-.01	(.01)	.00	(.01)
Gender	.04	(.20)	.01	(.21)	.02	(.21)
Full time/Part time			.20	(.32)	-.06	(.32)
Yrs in current job title			.00	(.02)	.02	(.02)
Job type			.09	(.16)	-.02	(.17)
Direct service					.03	(.05)
Clinical collaboration					-.02	(.07)
Administration					.09	(.07)
Salary					-.03	(.08)
Breadth of supervision					.06	(.12)
Control over budget					-.29	(.14)*

^aDependent Variable: overall job satisfaction (*p < .05).

file characteristics of psychiatrists who work in the public sector, identifying similarities and differences in their work conditions (Ranz, McQuiston & Stueve, 2000), and to investigate predictors of overall job satisfaction. In this paper we focus on job satisfaction—both psychiatrists beliefs about what contributes to their job satisfaction and associations between employment characteristics and job satisfaction. We believe that job satisfaction is extremely important to both the organization's functioning and to the individual's well-being, and our literature review supports this contention.

Our results reconfirm the ambivalence of community psychiatrists towards administration noted in our earlier survey of alumni of the Columbia University Public Psychiatry Fellowship (Ranz, Eilenberg & Rosenheck, 1997; Ranz & Stueve, 1998). Respondents believe that job satisfaction is more dependent on the performance of clinical collaboration than administration or direct service. Both correlational and regression analyses, however, indicate that job satisfaction is not associated with frequent performance of clinical collaboration, but is associated with frequent performance of administrative tasks. What accounts for

the conflicting findings regarding the relative impact of clinical collaboration and administration on job satisfaction? One possible explanation is that psychiatrists in community-based agencies generally cannot rely upon the formal hierarchy to attain authority, as they can in more traditional hospital settings. In effect, authority is not automatic, but must be earned. Consequently, psychiatrists in community-based agencies must depend heavily upon collaborative skills to function, and thus take great pride in their collaborative skills. However, our findings may be interpreted as suggesting that clinical collaboration serves as the necessary, though not sufficient, pathway to job satisfaction, by giving psychiatrists the authority to influence administrative decisions. A correlation between the frequency of clinical collaboration and the frequency of administration would support this argument, and, indeed, in our data these two task domains are moderately correlated with each other ($r = .411, p < .001$).

As in our previous survey (Ranz, Eilenberg & Rosenheck, 1997), we find that medical directors report significantly greater job satisfaction than staff psychiatrists. This can be largely explained by job conditions. Medical directors on average perform more administrative activities, and, as noted above, performance of administrative tasks promotes job satisfaction.

Perhaps our most interesting finding is that job satisfaction decreases over time for staff psychiatrists but not for medical directors. This is consistent with literature reporting similar differences between ordinary and elite professionals and suggests that staff psychiatrists may come to view this position as a "dead end job. In light of these results, staff psychiatrists might be well advised to seek promotions to medical director positions as their careers progress or to reconfigure their positions to include more administrative responsibilities.

When we examine medical directors alone, we find that program and agency medical directors do not differ regarding job satisfaction. Indeed, only control over the budget—a component of direction, control and planning (DCP)—is associated with job satisfaction. Interestingly, factors that relate to management of others without DCP do not contribute to job satisfaction. Frequent performance of clinical collaboration is not related to job satisfaction, nor is breadth of supervision among medical directors. Job characteristics related to DCP, such as control over the budget among medical directors and performance of administrative tasks for the full sample, are associated with job satisfaction, however. Thus the differential contribution of DCP and management of others

that Link et al. found for depression seems to hold for job satisfaction as well. Our results therefore suggest that closer scrutiny of items relating to DCP might yield a more refined understanding of the antecedents of job satisfaction among community psychiatrists. For example, control over budget and other administrative activities (e.g., policy development, routine administration) could be examined in greater detail.

The lack of difference in satisfaction between program and agency medical directors is encouraging because it is easier to obtain medical director positions at the program level than at the agency level. Most agencies have a number of programs within which a medical director can function, creating a satisfying niche for young community psychiatrists.

Since this survey was limited to community psychiatrists, we do not know whether its findings can be generalized to psychiatrists in other organizational settings. However, the identical survey was distributed to members of the American Association of Psychiatric Administrators several months later. When we analyze these results we will be able to address these above issues for hospital-based psychiatrists as well.

We also need to acknowledge that many of the correlations reported above are relatively modest, explaining a small portion of the variance. Clearly, other determinants of job satisfaction need to be identified and examined, and we plan to do so in future surveys. The cross-sectional design also limits conclusions about causal processes. For example, although our model specifies that years in current job predict satisfaction, the causality could be in the opposite direction.

As indicated in our introduction, possibly the most important question about job satisfaction is whether it affects job turnover. Since this survey was administered only once, we cannot assess the effect of job satisfaction prospectively. It would be interesting to determine whether job satisfaction (as measured in this survey) predicts job tenure, and a follow-up survey of AACP members will address this question.

Finally, only 27% of respondents in this survey were women. As it happens, this is fairly representative of the situation in American psychiatry today—31% of members of the American Psychiatric Association are women (personal communication—APA Department of Education). We have no reason to expect that our findings would have been different if there were more women in our sample because when the analyses reported in this paper were run for women alone the results were similar. However, most of the results were not statistically significant, probably because the subset of women was so small. Future surveys will allow us to analyze gender differences more completely because the proportion

of women can be expected to increase substantially in the next few years: in our sample, the proportion of women increases sharply in younger age ranges (9% in the 60–85 age range, 15% in the 50–59 age range, 33% in the 40–49 age range, and 47% in the 30–39 age range).

REFERENCES

- Bacharach SB, Bamberger P, Conley S. (1991). Work-home conflict among nurses and engineers: Mediating the impact of role stress on burnout and satisfaction at work. *Journal of Organizational Behavior* 12(1): 39–53.
- Begley TM, Czajka JM. (1993). Panel analysis of the moderating effects of commitment on job satisfaction, intent to quit, and health following organizational change. *Journal of Applied Psychology* 78: 552–6.
- Bluen SD, Barling J, Burns W. (1990). Predicting sales performance, job satisfaction, and depression by using the Achievement Strivings and Impatience-Irritability dimensions of Type A behavior. *Journal of Applied Psychology* 75(2): 212–216.
- Brush DH, Moch MK, Pooyan A. (1987). Individual demographic differences and job satisfaction. *Journal of Occupational Behavior* 8: 139–55.
- Byers VL, Mays MZ, Mark DD. (1999). Provider satisfaction in army primary care clinics. *Military Medicine* 164(2): 132–135.
- Chen PY, Spector PE. (1992). Relationships of work stressors with aggression, withdrawal, theft and substance use: An exploratory study. *Journal of Occupational & Organizational Psychology* 65(3): 177–184.
- Crampton SM, Wagner JA. (1994). Percept-percept inflation in microorganizational research: An investigation of prevalence and effect. *Journal of Applied Psychology* 79: 67–76
- Handbook for Analyzing Jobs. (1972). US Department of Labor, Manpower Administration.
- Hulin CL, Roznowski M, Hachiya D. (1985). Alternative opportunities and withdrawal decisions: Empirical and theoretical discrepancies and an integration. *Psychological Bulletin* 97(2): 233–250.
- Iaffaldano MT, Muchinsky PM. (1985). Job satisfaction and job performance: A meta-analysis. *Psychological Bulletin* 97(2): 251–273.
- Jackson SE, Schuler RS. (1985). A meta-analysis and conceptual critique of research on role ambiguity and role conflict in work settings. *Organizational Behavior and Human Decision Processes* 36: 16–78.
- Jex SM, Gudanowski DM. (1992). Efficacy beliefs and work stress: An exploratory study. *Journal of Organizational Behavior* 13(5): 509–517.
- Judge TA, Watanabe S. (1993). Another look at the job satisfaction-life satisfaction relationship. *Journal of Applied Psychology* 78(6): 939–948.
- Katz K, Kahn RL. (1978). *The social psychology of organizations* (2nd ed.). New York: John Wiley.
- Link BL, Lennon MC, Dohrenwend BP. (1993). Socioeconomic status and depression—the role of occupations involving direction, control and planning. *American Journal of Sociology* 98(6): 1351–1587.
- Moyle P. (1995). The role of negative affectivity in the stress process: tests of alternative models. *Journal of Organizational Behavior* 16: 647–668.
- Petterson IL, Arnetz BB, Arnetz JE. (1995). Predictors of job satisfaction and job influence—results from a national sample of Swedish nurses. *Psychotherapy & Psychosomatics* 64(1): 9–19.
- Petty MM, McGee GW, Cavender JW. (1984). A meta-analysis of the relationships between individual job satisfaction and individual performance. *Academy of Management Review* 9(4): 712–721.
- Ranz JM, Eilenberg J, Rosenheck S. (1997). The psychiatrist's role as medical director: task distributions and job satisfaction. *Psychiatric Services* 48: 915–20.
- Ranz JM, McQuiston HL, Stueve A. (2000). The role of the community psychiatrist as medical director: A delineation of job types. *Psychiatric Services* 51: 930–32.

- Ranz JM, Stueve A. (1998). The role of the psychiatrist as program medical director. *Psychiatric Services* 49: 1203–7.
- Sarata BP, Jeppesen JC. (1997). Job design and staff satisfaction in human service settings. *American Journal of Community Psychology* 5(2): 229–36.
- Spector PE. (1985). Measurement of human service staff satisfaction: Development of the Job Satisfaction Survey. *American Journal of Community Psychology* 13(6): 693–713.
- Spector PE. (1986). Perceived control by employees: A meta-analysis of studies concerning autonomy and participation at work. *Human Relations* 39(11): 1005–1016.
- Spector PE. (1997). *Job satisfaction—Application, assessment, causes, and consequences*. Thousand Oaks, CA: Sage Publications, Inc.
- Witt LA, Nye LG. (1992). Gender and the relationship between perceived fairness of pay or promotion and job satisfaction. *Journal of Applied Psychology* 77: 910–17.
- Zeitz G. (1990). Age and work satisfaction in a government agency: a situational perspective. *Human Relations* 43(5): 419–438.