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ENVIRONMENTAL FACTORS AND RETENTION DECISIONS OF HEALTH CARE PR--ETC(U)
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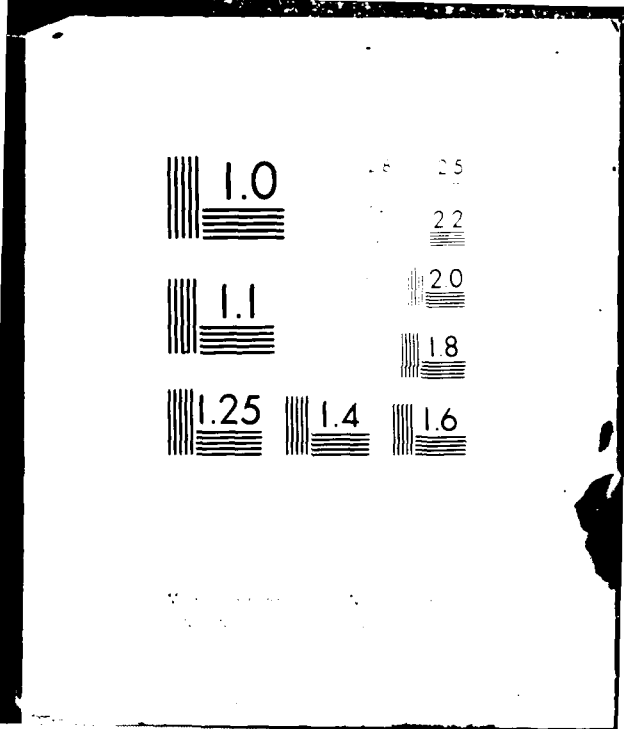
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ENVIRONMENTAL FACTORS AND RETENTION DECISIONS OF HEALTH CARE PROVIDERS

M. C. BUTLER

REPORT NO. 81-28

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Environmental Factors and Retention Decisions
of Health Care Providers

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Report No. 81-28 was supported by Naval Medical Research and Development Command, Bethesda, Maryland, Department of the Navy, under research Work Unit M0106.PN.001-0002. The views presented in this paper are those of the author. No endorsement by the Department of the Navy has been given or should be inferred.

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Summary

The purpose of this study was to compare the relative influences of five major sets of variables (demographic, personality, job attitudes, perceived work environment, and supervisor-rated performance) to determine their separate and combined contributions in explaining individual retention decisions. The sample consisted of 163 lower level, military health care providers assigned to five branch clinics within the administrative jurisdiction of a large Naval Regional Medical Center. The sample was further divided into high (n = 46), undecided (n = 49), or low (n = 68) intention groups, based on an individual's stated intent to remain in the naval service. A questionnaire designed to measure demographic, personality, job attitude and perceived work environment characteristics was administered voluntarily in small group sessions during normal working hours. Supervisor ratings of job performance, however, were obtained approximately six weeks following the collection of questionnaire data. Multiple discriminant analyses were conducted to identify significant between retention group discriminators drawn from each variable domain. These results were combined to produce a summary discriminant analysis which identified, across variable domains, those measures most strongly associated with turnover intention. This summary analysis produced two discriminant functions that significantly differentiated between turnover intention groups. The first function was bipolar in nature anchored by work-related variables at the positive end and need for independence at the negative end. The second function was also bipolar in nature (organizational tenure X personality), and maximally discriminated between high intent to remain and undecided groups. In addition, supervisor ratings of job performance were not found to be significant between group discriminators at the multivariate level. Additional research to validate these findings utilizing actual turnover data is recommended.

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Although problems associated with turnover and retention continue to plague military managers, the complexity of such problems seemingly elude many investigators. Several authors have indicated that the majority of studies purporting to study turnover or attrition tend to be bivariate in nature (Blow & Hulin, 1981; Mobley, Griffith, Hand, & Meglino 1979). While such studies are useful in identifying important correlates of turnover behavior, they typically lack the breadth to assess relative contributions of different categories of variables in explaining the turnover process (Spencer & Steers, 1980).

To illustrate this point, an accumulation of research evidence suggests a number of specific relationships between several different variables and job turnover. Age and organizational tenure, for example, have consistently predicted voluntary attrition with younger, less experienced employees generally seen as better candidates for organizational withdrawal (Mobley, Horner, & Hollingsworth, 1978; Porter, Steers, Mowday, & Boulian, 1974). Other background variables, such as sex and education have exhibited weak or inconsistent relationships with turnover behavior, yet are often viewed as potentially important moderators of the turnover decision process (Mobley, et al., 1979). Job characteristics, job attitude, and psychological climate measures have also been used successfully to explain attrition and withdrawal behavior. Briefly, enriched and supportive work environments coupled with high levels of job satisfaction have typically been associated with favorable retention decisions (Jones & James, 1979; LaRocco, Pugh & Gunderson, 1977; Butler & Jones, Note 1).

Studies attempting to relate turnover behavior and individual difference or job performance measures have generally been less successful than those cited above. Individual difference measures have been almost entirely neglected in studies of turnover, despite continued demonstrations of their value in explaining other aspects of organizational behavior and decision-making. In the few instances where such measures as locus of control or need strengths have been incorporated in turnover studies, results have either failed to generalize or have accounted for essentially trivial amounts of variance (Mobley, et al., 1979, Lau, Note 2). In terms of job performance, Martin, Price, and Mueller (1981) reported that nurses who left their jobs did not perform significantly better than those who stayed, despite indications in the literature which suggest that employees who leave their organizations are generally better performers.

Regardless of the value of contributions made by the studies cited above in increasing understanding of specific aspects of turnover behavior, others have underscored the need to develop more comprehensive, multivariate, process approaches to explaining turnover decision-making (Blow & Hulin, 1981; Mobley, et al., 1979; Spencer & Steers, 1980). In particular, studies are necessary that can concurrently assess the contribution of measures representative of multiple variable domains previously demonstrated as antecedent correlates of turnover. The current study compared the relative influences of five major sets of variables (i.e., demographic, personality, job attitudes, perceived work environment, and supervisor-rated performance) to determine their contributions in explaining individual retention decisions.

Method

Sample. The sample consisted of 163 individuals (69% response rate) assigned to five branch clinics assigned to a large Naval Regional Medical Center. Overall, 66% were assigned to a direct care billet, 77% were male, and 71% were rated hospital corps-

men (e.g., mean paygrade = E-4). Age and level of education ranged from 19 to 48 ($M = 26.4$ years) and tenth grade to post baccalaureate ($M = 13.2$ years), respectively.

Questionnaire administration. A questionnaire designed to measure concepts within each of the major variable domains noted earlier was administered voluntarily in small group sessions during normal working hours. Demographic characteristics included measures of the respondent's age, sex, paygrade, job type (medical vs. nonmedical job assignment), education, and the length of time spent in (a) the Navy, (b) current paygrade, and (c) present duty assignment. Personality measures included self-esteem (Rosenberg, 1965), state anxiety (Spielberger, Gorsuch, & Lushene, 1970), multidimensional locus of control (Levenson, 1973), status concern (Kautman, 1977), cognitive complexity (Jones & Butler, 1980), manifest needs (Steers & Braunstein, 1976), and compliance with conventional work norms (James & Jones, 1980). The job attitude measures were job involvement (Lodahl & Kejner, 1965), perceived task importance, job and Navy satisfaction, and the individual's anticipated retention decision.

The work environment measures consisted of 23 composites designed to reflect different dimensions of perceived work climate, specifically leadership, work strain, job characteristics, and other relatively enduring aspects of the workgroup and organization (Jones & James, 1979). Finally, supervisor assessments of job performance were obtained approximately six weeks following the collection of questionnaire data. The job performance ratings reflected willingness to put in extra time and effort, carelessness, effectiveness of emergency medical skills, positive patient-related attitudes, nonprofessional demeanor, and a single item assessing the quality of the individual's overall behavior.

Analysis. Analysis of the data proceeded in four stages. First, the 23 work environment composites were component analyzed to produce a reduced set of more global measures. Second, the sample was divided into high ($n = 46$), undecided ($n = 49$), or low ($n = 68$) intention groups based on an individual's stated intent to remain in the naval service. Third, multiple discriminant analyses were conducted to identify significant between retention group discriminators drawn from each variable domain. Finally, the results of the separate within domain analyses were combined to produce a summary discriminant analysis designed to identify, across variable domains, those measures most strongly identified with turnover intention.

Results

Components analysis. A principal components analysis of the 23 individual work environment measures produced four components with eigenvalues ≥ 1.0 . The first component was rather strikingly defined by measures associated with a variety of leader behaviors, including aspects of leader behaviors, including aspects of leader influence, goal emphasis, interaction and facilitation skills, and trust. The second component was dominated by measures of workgroup (e.g., cooperation, pride, friendliness) and organizational (openness of expression, organizational esprit) characteristics, and generally reflected a variety of situational or unit influences. The third component was defined most clearly by job characteristic measures (e.g., variety, challenge importance, and autonomy), while the final component reflected a pressure, conflict, or general strain dimension. Based upon this pattern of relationships, the four components were labelled Leadership Facilitation and Support, Unit Influences, Job Enlargement, and Job Pressure. Component scores ($M = 0$, $SD = 1.0$) were computed for each participant on each of the four work environment dimensions by a direct solution method (Harman, 1967) for use in the remaining analyses.

Within domain analyses. Differences between turnover intention groups were identified using multiple discriminant analysis. The significant discriminating variables from each of these analyses, along with the total sample means, standard deviations, and associated internal consistency estimates (where appropriate) are listed in Table 1. For the eight background measures, two significant functions were obtained ($r_c = .50$, $p < .001$ and $r_c = .30$,

Table 1
Means, Standard Deviations, and Internal Consistency
Estimates for Significant Turnover Intention
Groups Discriminators (n = 163)

Variable Domain	M	SD	No. of Items	α
I. Background Measures				
1. Paygrade	4.42	1.47	1	n.a.
2. Age	26.39	5.78	1	n.a.
3. Months on Active Duty	69.17	66.87	1	n.a.
II. Personality Measures				
1. Work Values	47.96	7.02	13	.87
2. Need for Independence	11.99	2.31	4	.42
3. Need for Solitude	10.33	2.23	4	.52
4. Need for Dominance	16.21	3.36	5	.77
5. Internal Control	34.53	4.54	7	.62
6. Chance Control	20.88	6.77	8	.78
7. Impetuosity	7.17	1.96	3	.43
III. Job Attitude Measures				
1. Navy Satisfaction	11.54	3.34	4	.73
2. Job Involvement	16.85	4.77	6	.80
IV. Work Environment Measures				
1. Unit Influences	.01	1.03	-	n.a.
2. Job Enlargement	.04	.97	-	n.a.
V. Job Performance Measures				
1. Extra Effort	22.14	5.20	6	.90
2. Non-Professional Demeanor	7.83	2.68	4	.70

$p < .05$, respectively), although only paygrade, age and months on active duty had both interpretable standardized discriminant function coefficients (i.e., $\pm \geq .30$) and significant univariate F-ratios. These three variables were retained for later use. The personality measures analysis also generated two significant discriminant functions ($r_c = .50$, $p < .001$ and $r = .40$, $p < .05$, respectively). The significant variables included work values, needs for independence, solitude, and dominance (from manifest needs), internal and chance locus of control, and impetuosity (from cognitive complexity).

Analysis of the three remaining domain categories produced a single significant discriminant function in each instance. For the job attitude domain, this function was principally defined by the Navy satisfaction and job involvement measures ($r_c = .54$, $p < .001$).

For the four work environment components described in the preceding section, only the Unit Influences and Job Enlargement dimensions produced significant between-group discrimination ($r_c = .73$, $p < .001$). Although the only measures of supervisor-rated job performance that failed to discriminate between turnover intention groups at the univariate level were positive patient attitude and the single-item measure of overall behavior ($r_c = .31$, $p < .05$ for this function), only the extra effort and non-professional demeanor measures were also significant discriminators at the multivariate level.

Across domain analysis. A final stepwise discriminant analysis was conducted which produced two significant functions ($r_c = .63$, $p < .001$ and $r_c = .41$, $p < .001$, respectively) and utilized only 10 of the 16 variables shown in Table 1. Inspection of the marker variables for the first function indicated that five of the original 16 variables were related to turnover intention, including Navy satisfaction, job enlargement, needs for independence and dominance, and job involvement. The second function was defined by seven variables, including months on active duty, work values, needs for independence and solitude, both locus of control measures, and, to a lesser extent, Navy satisfaction. Finally, using those 10 variables correct group classification was obtained for 67.6% of the high intent to remain group, 61.2% of the undecided group, and 63.0% of the low intent to remain group (64.4% correct classification, overall). Interestingly, none of the job performance measures made a unique contribution beyond the variables just noted and were deleted from further analysis.

Table 2 contains the discriminant structure matrix and group centroids for the final, reduced list of discriminating variables. In addition, Figures 1 and 2 illustrate the overall pattern of these results by showing the group profiles plotted for each discriminant function. Joint inspection of the rotated discriminant function coefficients and centroid means contained in Table 2 and the values plotted in the respective figures can be used to aid interpretation. The first function, for example, appears to maximally discriminate between high and low intention groups. Mean differences on discriminating variables were most salient for Navy satisfaction, need for independence, job involvement, job enlargement, and need for dominance. More specifically those individuals with a high intent to remain would likely report higher levels of (a) satisfaction with the Navy, (b) job involvement, (c) job enlargement, and (d) needs for dominance. Additionally, such individuals would likely have a greater tendency toward group cooperation as evidenced by lower needs for independence.

Table 2
Rotated Discriminant Function Coefficients
and Group Centroid Means

I. <u>Rotated Discriminant Function Coefficients</u>	<u>Function</u>	
	<u>I</u>	<u>II</u>
Variables ¹		
1. Navy Satisfaction	.59	-.01
2. Need for Independence	-.43	.21
3. Job Involvement	.27	.05
4. Job Enlargement	-.26	-.06
5. Need for Dominance	.24	-.01

¹Variables are ordered by the function with the largest coefficient and the magnitude of that coefficient.

Table 1 (Cont'd)

Rotated Discriminant Function Coefficients	Function	
	I	II
6. Months on Active Duty	.19	-.33
7. Need for Solitude	.33	-.35
8. Work Values	.41	-.34
9. Internal Control	.33	-.30
10. Chance Control	.27	-.27
11. Centroid Means		
1. High Intention Group	.29	-.27
2. Undecided Group	.33	-.60
3. Low Intention Group	-.86	-.08

The second function discriminated between the high intent to remain and undecided groups. In this case, months on active duty, need for solitude, work values, and locus of control were the salient variables contributing to between groups discrimination. In terms of these variables, undecided individuals could be characterized as (a) at a four-year point in their naval careers, (b) oriented toward an external locus of control, (c) expressing greater needs for solitude or autonomy, and (d) subscribing somewhat less to traditional normative work values.

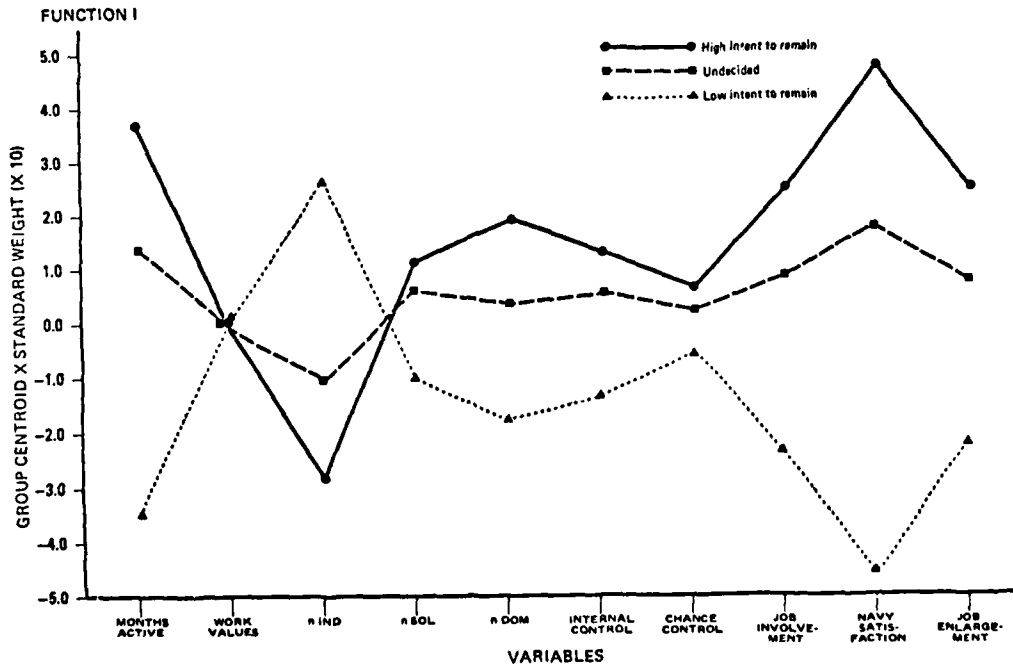


Figure 1
Turnover Intention Group Profiles for Function I

Discussion

The present study examined the relative contribution of five major variable domains in explaining individual retention decisions. Due to the nature of the criterion used in this study (intentional versus actual behaviors), however, these effects must be viewed as somewhat exploratory. Nevertheless, since the approach taken was consistent with the multivariate orientation advocated by Mobley, et al., (1979), *several tentative points will be made.*

First, and as frequently reported in the turnover literature, a combination of job attitude (job involvement and Navy satisfaction) and work environment (job enlargement) measures contributed strongly in discriminating between high and low turnover intention groups. Less frequently observed in this literature were the significant contributions of this function from the personality domain (individual need strengths). Mobley, et al., (1979), for example, reported a single effort which incorporated a measure of need strength (need for achievement) in a study of turnover (Cox, Bines, 1973). Although the need for achievement was used in the current study was overshadowed by the contribution of needs for dominance and independence, the value in pursuing need strengths as potentially important constructs in explaining additional variance in turnover decisions is apparent. Other studies have shown, for example, that intrinsic needs moderate the job characteristic - job satisfaction (Stone, Noway, & Porter, 1977) or job performance relationships (Steers & Spencer, 1977). Based on such findings, one might hypothesize that needs for independence and perceived job autonomy would be positively related for members of the high intent to remain group, unrelated in the undecided group, and negatively related in the low intent group. The fact that this hypothesis received partial support in the current study ($r = .18, .00,$ and $-.21$ for high to low intent groups, respectively) despite the problem of small sample size argues favorably for the inclusion of need strengths in future studies of turnover.

The second discriminant function generated in this study was defined by a combination of background and personality dimensions which were most useful in describing differences between the high intent to remain and the undecided groups. Given the pattern depicted in Figure 2, individuals with a favorable retention posture could be described (beyond the effects of length of service) as (a) oriented toward working with others, (b) subscribing to normative, Protestant-ethic work values, and (c) possessing an internal locus of control. Considering the difference in average length of service between the high and undecided groups (9.3 years versus 4 years), the remainder of this function seemingly describes a maturity/experience dimension associated with turnover decision-making. The validity of this interpretation especially regarding the inclusion of personality measures, remains a question for future research.

Finally, it is noteworthy that supervisor ratings of job performance were not retained as discriminators of turnover intention group, despite the fact that several of the performance measures showed substantial between group differences at the univariate level. Ratings of extra effort, for example, were significantly higher for the high intent to remain group ($p < .05$). Similarly, low intent individuals were rated as significantly higher on non-professional demeanor ($p < .01$). None of these differences however, were upheld at the multivariate level. These results are in essential agreement with those reported by Martin, et al., (1981) who also found that job performance was not related to turnover.

In summary, the current study identified, across multiple variable domains, two discriminant functions that significantly differentiated between turnover intention groups. The first function was bipolar in nature anchored by work-related variables at the positive end and need for independence at the negative end. The second function was also bipolar in nature (organizational

tenure X personality), and maximally discriminated between (a) intent to remain and underbilled groups. In addition, supervisor ratings of job performance were not found to be significant between group discriminators at the multivariate level. Additional research to validate these findings utilizing actual turnover data is recommended.

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REPORT DOCUMENTATION PAGE		REPORT NUMBER
1. AUTHOR	81-23	AD-A112 543
2. TITLE	Environmental Factors and Retention Decisions of Health Care Providers	111,1
3. AUTHOR	Mark C. Butler	
4. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)	Naval Health Research Center P.O. Box 85132 San Diego, CA 92138	
5. AUTHORING OR PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)	Naval Medical Research & Development Command Bethesda, MD 20014	21 October 1981
6. AUTHORING OR PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)	Bureau of Medicine & Surgery Department of the Navy Washington, DC 20372	UNCLASSIFIED
7. DISTRIBUTION STATEMENT (This Report)	Approved for public release; distribution unlimited.	
8. DISTRIBUTION STATEMENT (of the Abstract) (Enter in Block 11, if different from Report)		
9. SUPPLEMENTARY NOTES	Rand Conference on Military Attrition, Santa Monica, CA 1 Sep 1981	
10. KEY WORDS (Continue on reverse side if necessary and identify by block number)	Retention Job characteristics Discriminant analysis Work environment Personality Health care personnel	
11. ABSTRACT (Continue on reverse side if necessary and identify by block number)	The purpose of this study was to compare the relative influences of five major sets of variables (demographic, personality, job attitudes, perceived work environment, and supervisor-rated performance) to determine their separate and combined contributions in explaining individual retention decisions. The sample consisted of 163 lower level, military health care providers assigned to five branch clinics within the administrative jurisdiction of a large Naval Regional Medical Center. The sample was further divided into high (n = 46),	

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undecided (n = 49), or low (n = 68) intention groups, based on an individual's stated intent to remain in the naval service.

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