ORGANIZATIONAL AND CAREER ORIENTATIONS AMONG MILITARY HEALTH CARE PROFESSIONALS
NAVAL HEALTH RESEARCH CENTER SAN DIEGO CA M C BUTLER ET AL. 08 FEB 83

UNCLASSIFIED NAVHLTHRSCHC-83-1

F/G 5/9 NL
ORGANIZATIONAL AND CAREER ORIENATIONS AMONG MILITARY HEALTH CARE PROFESSIONALS

M. C. BUTLER
P. T. BRUDER

REPORT NO. 83-1
Organizational and Career Orientations among
Military Health Care Professionals

Mark C. Butler
Naval Health Research Center
P.O. Box 85122
San Diego, California 92138

and
Paul T. Bruder
Naval Dental Clinic
Bethesda, Maryland 20814

To expedite communication of our research, this is a preprint of a paper submitted
to Journal of Occupational Behavior and should be cited as a personal
communication.

Report No. 83-1, supported by the Naval Medical Research and Development Command,
Department of the Navy, under Work Unit No. M0106-PN.001-0002. The opinions
expressed in this paper are those of the authors. No endorsement by the
Department of the Navy has been given or should be inferred.

From the Health Psychology Department.

Acknowledgement. The authors wish to acknowledge the contribution of E. A.
Hartman who commented on earlier versions of this report.
Abstract

The present study described the career planning, commitment, and involvement orientations of military health professionals (N = 1,384). Efforts were made to (a) validate measures of career orientation and commitment and (b) investigate differences in those measures as a function of health care occupation and career stage. MANOVA results indicated that mean levels of bureaucratic role orientation, career involvement, and organizational commitment varied by occupational category and career stage level. Implications are discussed in terms of the need to identify specific variables which facilitate career decision-making and planning within career stages.
Organizational and Career Orientations among
Military Health Care Professionals

As noted by an increasing number of investigators, career development, planning, and commitment issues continue to receive considerable research attention (Butler, Bruder, & Jones, 1981; Gould, 1979; Morris & Sherman, 1981). One aspect of many career-oriented studies has been to identify dimensions of career planning and involvement and relate those measures to other individually and organizationally relevant outcomes. The logic behind such an approach, based largely on the work of Hall (1976), is that individual career effectiveness would likely lead to improved organizational effectiveness as well as a more committed work force.

At the individual level, Gould (1979) reported that the career planning activities of municipal employees in upwardly mobile occupations were strongly related to perceptions of career effectiveness and, to a lesser extent, career performance. Similarly, Butler et al. (1981) reported that perceived role orientation and organizational commitment varied in level and pattern among health care professionals, although they primarily addressed between occupational differences in a univariate sense. These authors did, however, point to the possibility that individual role orientations, organizational commitment, as well as other career orientation measures might change over time and discussed the implications such changes might have for both individual and organizational effectiveness.

Although studies such as those just cited are necessary to increase understanding of specific, career-related issues, their full value will likely not be realized until steps are taken to integrate these otherwise discrete outcomes into more comprehensive models of career development. London (1983) has proposed such a model which both classifies and integrates individual characteristics, situational characteristics, and career decisions and behavior into a process-oriented approach for studying career motivation and change. The multidimensional nature of London's model, in his own words, "suggests that motivational strategies will have to deal with broad sets of variables" (London, 1983, p. 629). Consistent with this viewpoint, multivariate, empirically based studies are needed to identify reliable measures of constructs represented in any career model, and validate hypothesized relationships.

The present study represents a move in this direction by describing the career planning and career involvement orientations of military health care professionals who participated in a larger study of career development and work environment interactions among Navy Medical Service Corps officers. Specifically, efforts were made to (a) validate previously reported measures of individual and career orientation and commitment and (b) investigate differences in career orientation and commitment as a function of specific health care occupation and career stage.
Method

Sample and procedure. Survey data were obtained from 1,384 Navy Medical Service Corps (MSC) officers by means of a mailout questionnaire. The Navy MSC is comprised of more than 20 different health service administration (e.g., food services management, data processing, fiscal management), science (e.g., microbiology, research physiology, pharmacology), and clinical (e.g., optometry, podiatry, audiology) professions, and probably represents the most heterogeneous naval officer community both in terms of the professional mix and educational background of its members. The survey respondents represented 79% of the MSC community and were divided into three major occupational groupings for comparison purposes (Health Care Administration, n = 657; Science and Technology Specialist, n = 305; and Clinical Care Specialist, n = 422). Average age, tenure, and time in present position for the sample as a whole was 35.3, 7.94, and 1.71 years, respectively. Demographically, 93% of the sample were male, 83% were married, and 60% had completed requirements for master's or doctoral level degrees. A more complete description of the sample exists elsewhere (Bruder & Butler, 1981).

Measures. In addition to the demographic characteristic variables mentioned above, five career orientation and organizational commitment variables were measured. These included assessments of bureaucratic and professional role orientation (Miller & Wager, 1971), an abbreviated version of the organizational commitment scale developed by Porter and his colleagues (Porter, Crampon, & Smith, 1976; Porter, Steers, Mowday, & Boulian, 1974), and career planning and involvement (Gould, 1979). The number of items in each scale ranged from three to eight and all were presented as part of a unified 27-item attitude scale (5-point Likert format; response choices ranged from "strongly agree" to "strongly disagree"). Internal consistency reliability estimates for these five measures in this sample ranged from .59 to .89, with only the professional role orientation composite falling below .80. More detailed information regarding the career-related measures is contained in earlier reports (cf. Butler, et al., 1981; Butler, Johnson, & Bruder, Note 1).

Analysis. To determine the construct validity of the five career orientation and commitment measures, the 27 items underlying the a priori scales were subjected to a confirmatory principal components analysis. The second goal of the study was to determine differences in career orientation among different groups of health care professionals. Several investigators (e.g., Super & Hall, 1978; Hall, 1976; Levinson, Darrow, Klein, Levinson, & McKee, 1974; Schein, 1971) suggested that aspects of career orientation and commitment such as those included in the current study should vary by both occupational category and career stage. These variations may reflect, for example, indirect influences of such variables as education, level of specific training, or age.

To test such assertions, and to further demonstrate the validity of the five career commitment measures, comparisons were made at three levels of career stage as well as between the three occupational groups described earlier. Career stage level was determined on the basis of self-reported length of service (i.e., tenure). The junior career stage group consisted of persons whose length of service was less than 8 years, the middle group was composed of those individuals
with between 9 and 13 years of service, and seniors consisted of persons reporting over 13 years. The five career commitment measures were entered as dependent variables in a 3 X 3 multivariate analysis of variance (MANOVA). Following utilization of the MANOVA procedure, univariate F-tests (ANOVA) and discriminant analysis were used to determine which of the dependent variables changed as a function of occupational category or career stage level.

Results

Validation of Measures

The results of the principal components analysis conducted on the 27 career commitment and orientation items are summarized in Table 1. This analysis produced six components with eigenvalues >1.0 and accounted for 63% of the variance among the original items. Following varimax rotation, items associated with career planning, organizational commitment, and each role orientation measure were found to uniquely define four of the six components. The remaining two components identified seemingly separate facets of career involvement, with one component referring to satisfaction with one's career or career choice while the other described the relative importance of one's career in relation to other life events.

Although valence-instrumentality-type distinctions might be meaningfully considered in studies of career involvement, scales created by summing marker variables on these two components were substantially correlated (r = .54). Therefore, the two dimensions were combined to form a single career involvement measure for use in this study. Correlations among the five career commitment measures ranged from -.09 (bureaucratic and professional role orientation) to .48 (career involvement and career planning). The average amount of shared variance among the measures, however, was less than 4% (R² = .036), which provides support for the construct validity of the five career orientation measures.

Multivariate Analysis of Variance

The results of the MANOVA produced a significant occupational category (A = .721, p < .001) and career stage (A = .923, p < .001) effect. Additionally, a significant occupation X career stage interaction was revealed (A = .953, p < .001). These findings indicated considerable variability in the set of five career commitment measures as a function of both independent variables. However, as discussed earlier, interpretation of the MANOVA involved a combination of ANOVA and discriminant analysis techniques. Inspection of the ANOVA results, conducted separately for each of the dependent variables, indicated that bureaucratic role orientation and organizational commitment varied significantly across occupational categories, career stage level, and in the interaction of occupation and career.

1Although career stage categories such as these may appear inconsistent with time intervals suggested by others (e.g., Super, 1957; Levinson et al., 1974), they were selected because they correspond to promotion flowpoints within the Medical Service Corps. Thus, the junior, middle, and senior level breakpoints included in this study have organizational significance because they signal transitions in level of responsibility, availability or eligibility for reassignment, and other indicators of career growth.
Table 1: Rotated Component Structure Loadings for Career Commitment Items

<table>
<thead>
<tr>
<th>Item</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
<th>VI</th>
<th>( h^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My chosen occupational specialty gives me a sense of well-being.</td>
<td>-.68</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.61</td>
</tr>
<tr>
<td>2. I have a definite plan for my career.</td>
<td></td>
<td>-.76</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.65</td>
</tr>
<tr>
<td>3. Compared to other areas of my life, my chosen career is not very important to me.</td>
<td></td>
<td></td>
<td>-.59</td>
<td></td>
<td></td>
<td></td>
<td>.52</td>
</tr>
<tr>
<td>4. If I were to describe myself to someone, I would probably begin by stating my occupational specialty.</td>
<td></td>
<td></td>
<td></td>
<td>.55</td>
<td></td>
<td></td>
<td>.37</td>
</tr>
<tr>
<td>5. I would accept almost any type of job assignment in order to stay in the Navy.</td>
<td>-.42</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.59</td>
</tr>
<tr>
<td>6. I am proud to tell others that I am part of the Navy.</td>
<td></td>
<td>-.77</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.64</td>
</tr>
<tr>
<td>7. I talk up the Navy to my friends as a great organisation to work for.</td>
<td></td>
<td></td>
<td>-.81</td>
<td></td>
<td></td>
<td></td>
<td>.69</td>
</tr>
<tr>
<td>8. I have a strategy for achieving my career goals.</td>
<td></td>
<td></td>
<td>-.75</td>
<td></td>
<td></td>
<td></td>
<td>.63</td>
</tr>
<tr>
<td>9. I am sometimes dissatisfied with my choice of career fields.</td>
<td>.82</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.71</td>
</tr>
<tr>
<td>10. I know what I need to do to reach my career goals.</td>
<td></td>
<td>-.74</td>
<td>.83</td>
<td></td>
<td></td>
<td></td>
<td>.57</td>
</tr>
<tr>
<td>11. My personal career objectives are not clear.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.74</td>
</tr>
<tr>
<td>12. If I were to rank (in importance to me) all the things that I do, those things related to my career would be at or near the top.</td>
<td></td>
<td></td>
<td></td>
<td>-.71</td>
<td></td>
<td></td>
<td>.62</td>
</tr>
<tr>
<td>13. Sometimes I wish I had chosen a different career field.</td>
<td>.78</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.72</td>
</tr>
<tr>
<td>14. I identify strongly with my chosen specialty.</td>
<td></td>
<td></td>
<td>-.54</td>
<td>.42</td>
<td></td>
<td></td>
<td>.58</td>
</tr>
<tr>
<td>15. I have not really decided what my career objectives should be yet.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.80</td>
<td></td>
<td>.68</td>
</tr>
<tr>
<td>16. For me, the Navy is the best of all possible organizations to work for.</td>
<td></td>
<td></td>
<td></td>
<td>-.74</td>
<td></td>
<td></td>
<td>.63</td>
</tr>
<tr>
<td>17. I change my personal career objectives frequently.</td>
<td></td>
<td>.49</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.36</td>
</tr>
<tr>
<td>18. Deciding to join the Navy was a definite mistake on my part.</td>
<td>.66</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.51</td>
</tr>
<tr>
<td>19. I find that my values and Navy values are very similar.</td>
<td></td>
<td>-.70</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.54</td>
</tr>
<tr>
<td>20. I get a sense of pride from my chosen occupational specialty.</td>
<td></td>
<td>.63</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.64</td>
</tr>
<tr>
<td>21. Being able to pursue a career in management is very important to me.</td>
<td></td>
<td></td>
<td></td>
<td>.84</td>
<td></td>
<td></td>
<td>.78</td>
</tr>
<tr>
<td>22. Being able to do the kind of work that will contribute to advancing my profession (e.g., occupational specialty) is very important to me.</td>
<td></td>
<td></td>
<td></td>
<td>-.55</td>
<td>.41</td>
<td></td>
<td>.65</td>
</tr>
<tr>
<td>23. It is important to me to be able to publish results of my work in professional journals regardless of its value to the Navy Medical Department.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.79</td>
<td></td>
<td>.65</td>
</tr>
<tr>
<td>24. Having a job which permits me to take on progressively more administrative responsibility is important to me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.88</td>
<td></td>
<td>.83</td>
</tr>
<tr>
<td>25. I am extremely glad that I chose the Navy to work for over other organizations I was considering at the time I joined.</td>
<td></td>
<td></td>
<td></td>
<td>-.77</td>
<td></td>
<td></td>
<td>.64</td>
</tr>
<tr>
<td>26. I would like to assume a position with more managerial responsibility.</td>
<td></td>
<td></td>
<td></td>
<td>.89</td>
<td></td>
<td></td>
<td>.83</td>
</tr>
<tr>
<td>27. In the long run I would rather be respected among specialists in my professional field than by my peers in the Navy.</td>
<td></td>
<td></td>
<td></td>
<td>.43</td>
<td>-.66</td>
<td></td>
<td>.59</td>
</tr>
</tbody>
</table>

Percent of variance accounted for: .12 .15 .14 .89 .86 .87 .63

*Only values greater than or equal to .40 are reported.
stage. Professional role orientation and career planning activities varied significantly across occupational categories and levels of career stage but did not contribute to the multivariate interaction. Finally, significant variations in mean level of career involvement were found between career stage categories as well as in the interaction of occupational category and career stage. The F-ratios and probability levels associated with each of these effects are shown in Table 2.

As Spector (1977) noted, a degree of caution is warranted in basing interpretation of significant MANOVA effects in terms of univariate F-tests alone. Such caution is due in large part to problems of multicollinearity among the dependent variables. For this reason, interpretation of the results is enhanced by examining the results of separate discriminant analyses conducted between the cells representing each main effect and the 2-way interaction. The discriminant analysis associated with the occupational main effect produced a single significant function (\( A = .721, p < .001 \)). Examination of the standardized discriminant function coefficients associated with each of the dependent variables on this function (also shown in Table 2) revealed that maximum between occupational category differences were accounted for by the two role orientation measures. Despite the significant univariate differences associated with the organizational commitment and career planning measures, the low discriminant weights for these two variables indicated that they contributed little to between occupation discrimination not contained in the combination of professional and bureaucratic role orientation.

The analysis of the career stage main effect produced two significant functions (\( A = .923, p < .001 \), and \( A = .989, p < .001 \), respectively). The first function primarily described between career stage differences in terms of professional role orientation and career planning activities. Inspection of the discriminant weights associated with the second function showed that differences in level of career involvement and, to a lesser extent, organizational commitment, were largely responsible for its definition. While substantial weights were also found on the second function for both the professional role orientation and career planning variables, it should be remembered that their principal usefulness was best seen in terms of the first career stage function. The relatively low discriminant weights associated with bureaucratic role orientation on both career stage functions suggested that this variable contributed little to career stage differentiation not accounted for by the remaining career commitment measures.

Finally, the discriminant analysis of the significant occupation X career stage interaction produced three significant functions. The first (\( A = .953, p < .001 \)) was primarily related to variations across occupation and career stage categories in bureaucratic role orientation. The second function (\( A = .979, p < .001 \)) was strongly related to between group differences in mean level of career involvement. Occupation X career stage differences on the third function (\( A = .989, p < .03 \)) were largely related to variations in average level of organizational commitment. Based on the foregoing findings, derived from both the ANOVA and discriminant analysis results, it appeared that the majority of change in the set of dependent variables could be attributed to bureaucratic role
Table 2
Results of Separate Discriminant Analyses of the Career Commitment Measures by Multivariate Effect

<table>
<thead>
<tr>
<th>Multivariate Effects</th>
<th>Occupation Category</th>
<th>Career Stage</th>
<th>Occupation X Career Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career Commitment Measures</td>
<td>Discriminant Loading</td>
<td>Discriminant Loading</td>
<td>Discriminant Loading</td>
</tr>
<tr>
<td></td>
<td>I</td>
<td>F1</td>
<td>P</td>
</tr>
<tr>
<td>1. Bureaucratic Role</td>
<td>-.339</td>
<td>187.67</td>
<td>.001</td>
</tr>
<tr>
<td>2. Professional Role</td>
<td>.245</td>
<td>55.86</td>
<td>.001</td>
</tr>
<tr>
<td>3. Organizational Commitment</td>
<td>.023</td>
<td>24.25</td>
<td>.001</td>
</tr>
<tr>
<td>5. Career Involvement</td>
<td>.013</td>
<td>&lt;1.00</td>
<td>.595</td>
</tr>
<tr>
<td>Canonical R</td>
<td>.524</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTE: Only loadings for significant discriminant functions are shown.

1 df = 2, 1375

2 df = 4, 1375
orientation, career involvement, and organizational commitment. Changes in each of these variables associated with different levels of occupational category and career stage are presented separately below.

**Bureaucratic role orientation.** Variations in mean level of bureaucratic role orientation across career stage levels, for each occupational group, are shown graphically in Figure 1. As depicted in this figure, mean levels of bureaucratic role orientation, regardless of career stage, were considerably higher for Health Care Administrators than for either of the remaining allied health groups. Time-related changes in bureaucratic role orientation are best seen in terms of the significant occupational group and career stage interaction. Among Health Care Administrators, essentially no changes in bureaucratic role orientation were found across advancing career stage categories. Within the Clinical Care group, however, perceived bureaucratic role generally increased across advancing stage levels with the greatest change occurring between the junior and middle career stages. For Health Science and Technology Specialists, a slight decline in bureaucratic role orientation occurred between the two early career stages, followed by a marked increase in mean level of perceived bureaucratic role seen between the middle and senior career stages.

![Figure 1. Mean level of bureaucratic role orientation by career stage level for each occupational category.](image-url)
Career involvement. Figure 2 contains results associated with the career involvement measure, the bulk of which are generally consistent with the majority of previously reported career research. Career involvement, for example, tends to be higher at early and later career stage levels, periods typically associated with higher levels of challenge and satisfaction. Interestingly, such effects were significantly more pronounced among the Health Care Administration and Science and Technology groups where from middle to senior career stage levels substantial increases in the average level of career involvement were found. In contrast, no appreciable change in career involvement occurred among Clinical Care Specialists during this same time period. Additionally, the lower mean career involvement score seen at the mid-career stage for each occupational group is not surprising since this period is frequently accompanied by intense feelings of role conflict and doubts regarding the wisdom or salience of specific career decisions (cf. Levinson et al., 1978; Hall, 1976).

Organizational commitment. Results for organizational commitment are shown in Figure 3. As a group, Health Care Administrators reported the highest level of organizational commitment, regardless of career stage, than did either of the two remaining occupational groups. Within the administrator community, however, no change in mean commitment level was found between junior and middle career stages. In contrast to the other occupational groups, the mean level of organizational commitment for Science and Technology Specialists declined between junior and middle career stage levels, and increased from middle to senior levels. Within

Fig. 2. Mean level of career involvement by career stage level for each occupational group.
the Clinical Care group, the mean level of organizational commitment increased over career stage levels in a directly linear fashion.

![Graph showing mean level of organizational commitment by career stage level for each occupational category.]

Fig. 3. Mean level of organizational commitment by career stage level for each occupational category.

Discussion

Current findings are discussed in terms of the two objectives of the study. Regarding the validity of the five career orientation and commitment measures, the results of the principal components analysis adequately demonstrated the value of maintaining distinctions between the organizational commitment, career planning, and both role orientation variables. Only in the case of career involvement were equivocal results obtained. In this instance, separate facets of career involvement emerged from the analysis referring to either satisfaction with career choice or the importance of one's career in relation to other life events. Because these two subdimensions of career involvement were felt to be too highly correlated to be of practical value in the present study does not, however, preclude their potential in future career-related investigations.

For example, maintaining such distinctions could conceivably aid in understanding the difficulties associated with mid-career reassessment experienced by many people. Several authors have noted that during this mid-career period the importance of being involved in a career declines in response to both internal (e.g., perceived lack of advancement opportunities) and external (e.g., expanded family responsibilities) pressures (cf. Levinson et al., 1978; Schein, 1983). One might hypothesize that those individuals higher in satisfaction with their initial career choice may experience less difficulty during the reassessment period than
less satisfied counterparts. In short, being involved and satisfied should lead to reduced difficulty in adjusting to the variety of internal and external factors which influence the importance of career involvement in relation to other life events.

The second objective of the study was to investigate differences in career orientation and commitment as a function of specific health care occupation and career stage. Results of the MANOVA showed that the majority of the career orientation measures included in this study varied in this sample of health care professionals both as a function of occupational specialty and career stage. While many of the differences encountered were logically consistent with practical and theoretical expectations, the generally linear relationships between the bureaucratic role orientation and organizational commitment measures across advancing career stage levels contrasted sharply with the curvilinear relationship found between career involvement and time. In addition, such effects were differentially related to occupational category.

More specifically, the MANOVA results indicated that the majority of change across occupation and career stage categories could be attributed to bureaucratic role orientation, career involvement, and organizational commitment. In terms of bureaucratic role orientation, mean levels of this variable were higher among administrators than for other health professionals. As discussed in an earlier report, this pattern of results is compatible with the administrator's work orientation to general administration and management, and the fact that many of these individuals have occupied administrative staff positions throughout the majority of their careers (Butler et al., 1981). Consistent with this interpretation, those in either of the allied health specialties would be expected to report lower bureaucratic role preferences due to their more extensive academic and graduate educational backgrounds.

In a related vein, time-related changes in bureaucratic role orientation reported in Figure 1 showed rather clearly that opportunities for the acquisition of administrative and management responsibility did not vary by career stage among administrators, and were inversely related across career stages for Clinical Care and Science and Technology Specialists. Briefly, bureaucratic role orientation generally increased over time for individuals involved in the delivery of health care, a logical finding consistent with individual growth in a homogeneous work setting (i.e., a hospital or clinic environment; Miller & Wager, 1971). Curiously, however, Science and Technology Specialists reported significantly higher or lower bureaucratic role preferences at each career stage interval when compared with their clinically oriented, allied health counterparts. Especially noteworthy for this generally research and development oriented group was the fact that the lowest bureaucratic role orientation level occurred at the mid-career stage, a well-documented, difficult transition point for most workers. Such findings strongly suggest the need to examine differences in the work environments of allied health professionals to adequately account for variations in perceived role preferences shown in Figure 1 and the apparent difficulties with role transitions for members of some occupational groups.
Results concerning differences in career involvement shed additional light on this problem. At first glance, increases in career involvement that occurred between the latter two career stage levels among Administrators and Science and Technology Specialists (see Figure 2) might be explained in a straightforward manner by linking such increments to changes in job status (i.e., promotion), specific assignment, or other job-related characteristics (e.g., increased autonomy). Similarly, the lack of change in career involvement over time for Clinical Care Providers may reflect the fact that these individuals, as mentioned above, continue to work throughout the majority of their careers in care delivery settings, and may thus have simply become bored with work due to perceived lack of challenge or variety.

More interesting, however, a comparison of results contained in Figures 1 and 2 suggests that additional study of relationships between bureaucratic role orientation, career involvement, and career stage is warranted, particularly among allied health professionals. Regardless of the origin of the change, it is plausible to suspect that increased bureaucratic role preference among Science and Technology Specialists between the middle and senior career stages may serve to stimulate interest in one's career at an obviously critical point in time. In fact, such stimulation may signal for some members of this group the beginning of a successful transition into, for example, research management versus the conducting of research itself. In this instance, increased career involvement would likely be related to the myriad processes associated with acquiring new and different skills necessary to perform effectively at a more advanced level. In short, changes in career involvement may be linked to perceptions associated with acquiring a "new" career.

Clinical Care Specialists, on the other hand, apparently do not experience the same increase in either career involvement or bureaucratic role orientation, a fact which may be related to differences in perceived career opportunities between the two groups during the period between middle and later career stages. Thus, it might be hypothesized that Clinical Care Specialists, as a group, are more likely to experience higher levels of job dissatisfaction, increased role conflict or job stress, and to have a greater tendency to leave the organization than their Science and Technology counterparts. Obviously, answers to these questions await future study, especially those focused on the mid-career, role transition process and the influence that transition might have on career involvement.

Regarding variations in organizational commitment, the increases noted within each occupational group from middle to senior career stages are consistent with the findings of others (Butler et al., 1981; Hrebiniak, 1974; Morris & Sherman, 1981). However, the significant decline in the mean level of organizational commitment observed in the Science and Technology group between the entry and mid-career level was unanticipated and thus is deserving of special comment. Further, the fact that members of this particular professional group also experienced reductions in both bureaucratic role orientation and career involvement suggests once again that the mid-career point is an especially difficult transition period for Science and Technology Specialists.
In large part, such differences are likely related to differences in the range of career opportunities available to members of each occupational group. As noted earlier, administrators have available to them quite a variety of potential job assignments throughout their careers which are located in a large number of different work settings. More important, these assignments are, for the most part, highly compatible with entry level skills and abilities of potential job incumbents. Although the range of specific job opportunities is narrower for Clinical Care Specialists, especially at more advanced career stages, such assignments are also generally compatible with the skills and abilities of members of this group. For example, the majority of clinical care and administrative job assignments are located in hospital or clinic settings and involve either the direct delivery or administration of health care services. Within each of these two occupational groups, the higher potential for improved person-environment "fit" minimizes the negative impact of time-related, career transitions.

Among Science and Technology Specialists, however, the nature of the work performed, and hence the potential for a good "fit," varies substantially across career stage levels. At entry levels, for example, prospective members are recruited and placed into specific positions based on a combination of job requirements and individual abilities and qualifications. These positions involve, in the main, either applied or basic research tasks and as typically constituted, provide considerable insulation to job incumbents from the overt priorities and pressures of the mainstream organization. At the mid-career level, most Science and Technology Specialists are expected to make the transition from this rather specialized career path into management positions often only remotely related to areas of their professional expertise. An added pressure to this expected transition is the implication that refusal or reluctance to accept such a career realignment may signal an end to the upward growth of the individual's career. Given this combination of actual and perceived pressure, it would be logical to suspect increased levels of role conflict among members of this group at the mid-career stage. To the extent that such transition difficulties actually generate increased role conflict, Science and Technology Specialists, more so than other health care professionals, might be expected to develop career anchors which could lead to higher voluntary attrition at earlier points in time. The validity of this interpretation, however, remains a topic for future study.

In conclusion, Super and Hall (1978) observed that regardless of specific career or role orientation, as individuals approach occupational or career decision points it becomes important to recognize that in most instances the worker is confronted with ambiguous, stressful, and sometimes boring situations. At least two outcomes are likely when this occurs. First, feelings of conflict and curiosity will be aroused within the individual which can be channeled productively, as indicated above, into new areas of personal involvement. Second, if undetected or poorly managed the negative aspects of the stresses that accompany career decisions can become so acute and overwhelming so as to precipitate withdrawal on the part of the person. Whether such withdrawal is psychological or behavioral in nature, it obviously serves no useful purpose at either the individual or organizational level. Despite the abundance of research
conducted to date describing various career stages (e.g., Levinson et al., 1974; Super, 1957; Schein, 1983), the current study suggests that future efforts should continue to examine those junctures at which transitions in role or career orientations are made and specifically attempt to identify variables which facilitate effective decision-making and thus, career planning.

To illustrate briefly, mid-career problems were shown to be more pronounced among Science and Technology Specialists regarding organizational commitment, bureaucratic role orientation, and career involvement, whereas administrators experienced mid-career difficulty primarily in terms of career involvement alone. Within each professional community, such relationships constitute complex problems which should not be treated frivolously by career planners and counselors. It would seem instead that more experienced organizational members who, by virtue of their accumulated years of service to the organization fill informal career planner roles, must attend to a dual problem. First, they must work to create opportunities which will satisfy the professional interests of subordinates. Second, and in some ways more important, senior organizational members must expose junior and mid-level individuals to the excitement of different job assignments and the potential such assignments have for professional, career development. Only by recognizing and attending to both problems, within career stages, will individual career involvement interests be stimulated and, concomitantly, organizational identification and commitment enhanced.

Reference Notes


References


The present study described the career planning, commitment, and involvement orientations of military health professionals (N=1,384). Efforts were made to (a) validate measures of career orientation and commitment and (b) investigate differences in career orientation and commitment as a function of health care occupation and career stage. MANOVA results indicated that mean levels bureaucratic role orientation, career involvement, and organizational commitment varied by occupational category and career stage level. Implications are discussed in terms of the need to identify specific variables.
Block 20. (cont.) which facilitate career decision-making and planning within career stages.