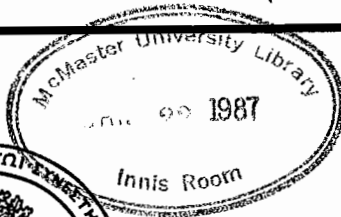


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New Directions in The Study of
Employee Absenteeism: A Research
Example

by

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The widespread method of correlating various organizational, demographic, and attitudinal variables with different indices of absence has not contributed much to our understanding of the psychological processes, antecedents, and consequences of employee absenteeism. In particular, the more proximal situational influences on a worker's decision as to whether to report for work are not well understood. This study set out to assess the extent to which the absences of hospital nurses were related to daily changes in specific self-reported absence-inducing or absence-detering events (i.e. a sick child to care for at home). A list of what the nurses reported to have been the major influences in their past decisions of absence was obtained in an initial survey. Likert-type rating forms of items thought to reflect these influences were then used to monitor the daily absence-relevant events confronting each nurse over a four-month period. Within-subject multiple regression analyses were done relating such changes to each nurse's daily self-expressed desire to be absent and their actual absence episodes. The same set of analyses were repeated using principal component scores of the absence-relevant events as predictors. It was found that for most nurses the desire to be absent and actual absenteeism were predominantly related to self-reports of tiredness, poor health, personal problems, and home demands. The literature on stress is referred to in the interpretation of these findings and suggestions for future research are offered.

Although little theory-guided research on employee absenteeism has been done, Nicholson (1977) noted that three related theoretical approaches to understanding absence, each differing in emphasis, could be identified from the literature: (a) absence represents a flight from negatively valued aspects of work experience (cf. March & Simon, 1958); (b) absence is an outcome of organizational socialization and other adaptive processes to job demands (Hill & Trist, 1955) and; (c) absence results from a rational decision or choice process directed toward the attainment of valued goals (Stagner & Rosen, 1965; Vroom, 1964).

The first of these approaches originated primarily from job satisfaction research and is typified in the following remark by Brayfield & Crockett (1955): "to the extent that work dissatisfaction indicates that the individual is in a punishing situation we should expect dissatisfied workers to be absent more often" (p. 415). Recent meta-analyses have shown that the relationship of absenteeism to most facets of job satisfaction is weak at best (cf. Hackett & Guion, 1985; McShane, 1984; Scott & Taylor, 1985). Moreover, that such a relationship might be moderated by "third factor" variables, as is postulated in the Steers and Rhodes (1978) attendance model, is unlikely (cf. Hackett & Guion, 1985).

The second of the theoretical positions -- that absence represents one way workers attempt to adjust to organizational demands -- is exemplified in the writings of Hill & Trist (1955). They viewed absence as one of a sequence of withdrawal behaviors that are likely to occur at different stages of an employee's socialization into a organization. Because of a lack of clear testable hypotheses, however, little empirical research of the "adjustive model" exists.

The third of the theoretical frameworks above postulates that absence is a purposive or volitional behavior. This is contrasted with the first two approaches which place more emphasis on the affective reaction of workers to their environment. It is this third approach that is the primary focus of this paper.

Absenteeism as Volitional Behavior

The notion of "voluntary" absenteeism connotes volition, that the worker has a choice whether to attend work on any given day. This is not to suggest that before starting off to work daily the individual goes through some complex conscious process of evaluating the pros and cons of attending, since attendance is likely to be more of a habit (Nicholson, 1977). Rather when one or more absence-inducing events do arise, they are likely to "trigger off" a consideration of the costs and benefits of taking the day off. For example, on awaking, an employee may feel ill, the car may fail to start, the baby sitter may call in sick, or any number of similar events could arise requiring the employee to depart from habitual patterns of behavior and decide to miss work. Accordingly, efforts to understand voluntary absenteeism should aim to identify those factors that are likely to enter into a worker's decision of whether to be absent. A review of the literature found only two papers that attempted to understand absenteeism within a decision-analytic framework (Morgan & Herman, 1976; Stagner & Rosen, 1965). Both attempts looked at absence from an expectancy theory perspective, wherein behavior is considered to be a multiplicative function of outcome probability and expected values of outcomes (valences) (Vroom, 1964).

Stagner and Rosen (1965) illustrated how a decision analysis involving the calculation of "subjective expected utilities" might be applied to understanding and predicting an employee's absences. Morgan & Herman (1976) were interested in whether organizational policies could deter absenteeism. Through individual structured interviews with 60 employees of an automobile-parts foundry they obtained a listing of what the workers themselves considered to be the inducements and deterrents to absence. For example, some of the inducements (positive outcomes) mentioned were "break from routine", "enjoy family activities", and "house maintenance". Some of the deterrents (negative outcomes) mentioned were "disciplinary talk", "more work for co-workers", and "loss of promotional opportunities" (p. 471). Consistent with a decision-analytic approach, the workers were then asked to assign "importance weights" to each of these (e.g. to indicate how important each reason was for going to work or taking the day off). Workers were also asked to indicate on 3-pt. scales the likelihood of their absence bringing about each outcome (the "instrumentality" of absenteeism). Both "instrumentalities" and "importance values" were then correlated with frequency of absences over (a) a 17-month period immediately preceding the individual interviews and (b) the immediately subsequent four month period. The absence-inducing events that were considered by employees with a high frequency of absences to be highly valued and most attainable through absenteeism included "break from routine", "personal business", and "leisure time". Personal illness and avoidance of transportation problems were also considered important reasons for missing work among the frequently absent. Moreover, organizationally controlled consequences (deterrents) generally were considered just as important, and just as likely to result from absenteeism for the frequently absent workers as for those who were

infrequently absent. The one exception to this was that frequency of past absences was positively related to stronger perceptions of a link between absence and (a) having a disciplinary talk with supervisor and (b) incurring a loss of promotional opportunities and benefits. There was no evidence, however, that these perceived contingencies acted to deter future absenteeism.

Such research is promising because, unlike most previous studies in this area where simple bivariate correlations between absenteeism and various demographic, organizational and personality variables have been investigated, more appreciation is given to dynamic extra-organizational influences on attendance behavior. It focuses attention away from the broader and relatively stable constructs to the more immediate and dynamic "everyday" events likely to influence decisions of absence. However, one shortcoming of the Morgan and Herman (1976) study is that the researchers had the workers assign importance weights and instrumentality values to the events or factors. These subjectively assigned weights may not accurately reflect the actual weightings the people give when making a decision. That is, the workers may not have an accurate perception of their own judgment policies (cf. Shepard, 1964; Slovic & Lichtenstein, 1971).

An Idiographic-Longitudinal Approach to Studying Employee Absenteeism

In a landmark paper in this area, Johns and Nicholson (1982) commented that advances in understanding employee absenteeism have been minimal because of an over-reliance on nomothetic cross-sectional research methods. They argued:

In order to explain absence, a more contingent approach is needed in which we attempt to uncover the specific contextual conditions that apply to individual absence episodes. This demands more painstaking investigation in which idiographic techniques are used to correctly specify the boundaries that are appropriate to explaining episodes and which will enable us to judge when similar explanations are valid for individual actors and episodes. Phenomenological strategies that explore the significance of absence events within the life-space of individuals are an essential pre-requisite for the development of grounded theory about individual absence causation (p. 135).

Additionally, they called for longitudinal research: "There is apparent consensus that data methods that are closer to 'real time' should reduce distortions due to the passage of time. If this is so, timely accounts of reasons for absence should have more variance than generalized retrospective reports and relevant context effects should be more readily accessible" (p. 143). For example, they suggested that workers could be asked to keep diaries of the proximal absence-relevant events confronting them daily. Mobley, Hand, and Meglino (1979) have made a similar plea with regard to the turnover literature: "Longitudinal research, not simply in terms of the collection of criterion data but also in terms of repeated measures of independent variables is needed" (p. 520). Finally, Newman (1974), emphasizing that workers live in a dynamic world commented: "A most difficult phenomenon to cope with in predictive field studies is the change in value of the predictor variable during the time period following their measurement" (p. 615). Using as an example the often hypothesized link between absence and attitudes, Newman (1974) recommended that the attitude of interest be closely monitored "over several points in time prior to obtaining the criterion measure and even at the time of obtaining the criterion measure" (p. 615). He concluded "these relationships may be

stronger and thus more predictive of absenteeism than the typical attitude-measured-at-one-time-behavior relationship pursued today" (p. 615). The Johns and Nicholson (1982) recommendation with respect to the keeping of diaries would address this issue in that predictor and criterion data would be collected simultaneously and repeatedly over several independent days of observation. The current study attempted to incorporate some of the recommendations of the Johns and Nicholson (1982) paper, but to do so within a more quantitative framework.

Focus of the present Study. In the current study, an idiographic-longitudinal approach to researching absenteeism was adopted. It might be best described as multiple-case-study research, largely exploratory in nature rather than directed toward the testing of a specific set of clearly derived hypotheses. The aims of this study were to (a) collect self-reports of the proximal dynamic events that most often enter into nurses' decisions of whether to be absent from the job, (b) monitor the daily changes in these events for each nurse over four to five months, and (c) assess the relationship of these changes to both the daily self-reported desire to be absent and actual absence episodes. Specifically, such questions arise as: (a) How much of the variance in an individual's expressed desire to be absent and actual absence episodes can be accounted for by knowledge of the proximal absence-relevant events confronting him or her daily? (b) Is there a fairly common set of events or influences across individuals that can explain most of the within-subject variance in absenteeism or do workers tend to have their own unique sets?; (c) How strongly related is a person's expressed desire to be absent on any one day and their actual absence

behavior? and (d) What is the relationship between episodes of absenteeism and daily mood states?

Method

Subjects

An initial sample of 140 members of the nursing staff of two Canadian hospitals completed a survey package designed to collect background information on various attitudinal, demographic, and organizational variables. Ninety-eight percent were female, 61% were single, with the mean age and tenure being 33 years (S.D. = 6.75) and 6.4 years (S.D. = 6.75) respectively. A total of 209 questionnaires had been circulated. Accordingly the 140 that were completed represented a 67% return rate.

From this group of 140, 54 agreed to participate in phase II of the study (a 4-5 month longitudinal phase). The profile of the "average participant" of this group was a 33 year old (S.D. = 9.79) single (61%) female (98%) with seven years of tenure (S.D. = 7.28). Twenty-six were from a General Care Hospital, while the remaining 28 worked for a Hospital which catered to children only. While there might have been some sampling bias in the reduced number of nurses participating in each phase, this was not considered to be a serious problem since the nature of the study was idiographic. That is, no broad generalizations were intended.

Procedure

The study was done in two phases. In the first survey questionnaires were administered in June of 1984 to small groups of 5-6 nurses at a time. The purpose of this survey was to provide hospital administrators with descriptive information regarding the work-related attitudes, values, and

stressors of their personnel. Additionally it was a means of obtaining a list of the major self-reported absence-inducing, absence deterring events confronting the nurses daily. To determine these major absence-relevant events the following two items were included in the packages:

(1) "Think of the times when you took time off from work in the past - list as many reasons for these absences as you can remember."

(2) "Think of the times when you felt like taking time off from work but chose not to - list as many reasons for having made this decision as you can remember."

In phase II of the study, the responses to the above two questions were grouped and then rank-ordered in terms of the frequency in which they were mentioned. Items were written to reflect the most frequently appearing responses and then assembled on a one-page Likert form which was used to monitor changes in the absence-relevant events over time for each participating nurse. For example, some items read: "How much are there personal problems affecting you today?" (5-pt. response scale); "The amount of work needed to be done at home today is/was?" (5-pt. response scale); "The number of patients on your ward/unit today compared to the number of staff scheduled is?" (5-pt response scale). In all, eighteen such items were written. Additionally, respondents were asked to indicate (a) whether the ratings were done on the day to which they applied, (b) how much they desired to take the day off, and (d) how satisfied they happened to be with their job that day. The satisfaction question was included to "tap" daily mood states.

The 54 nurses participating in phase II were instructed to complete one rating form for each shift that they were scheduled to work over the subsequent 4-5 month period. Each nurse was given a personalized folder

containing a two-weeks supply of rating forms to be kept in their hospital lockers, and a separate packet of forms to be kept at home to complete for scheduled shifts in which they failed to report for work. Arrangements were made to exchange the completed forms with a new set once every two weeks. Because of constraints within the two hospitals, starting and finishing times for phase II were staggered, with some having started as early as August 30th 1984, and others finishing as late as February 26th, 1985. Since most nurses worked rotating twelve-hour shifts, they were scheduled to work only fourteen shifts per month (twelve twelve-hour shifts and two eight-hour shifts). The objective was to obtain a minimum of 50 observations (completed forms) from each nurse.

The absences for each of the 54 nurses over the longitudinal phase were tallied from hospital records. Absenteeism was scored as a dichotomous variable on each day for which the ratings were made (0 = attended; 1 = absent).

Results

The number of completed rating forms from each nurse ranged from 24 to 82 ($\bar{X} = 60.11$; S.D. = 12.10). Two thirds of the forms were reportedly completed on the day for which the ratings applied; the remaining third were reportedly completed within two days afterwards. During the 4-5 month monitoring phase the nurses were absent a mean of 1.41 times (S.D. = 1.17; range = 0-5). For comparison, absenteeism statistics were summarized for 436 nurses from the two hospitals. They were absent an average of 3.29 times for a mean of 6.61 shifts throughout the entire year. This suggests that the absence of the nurses participating in the study were not artificially restricted on account of the researcher's intervention.

Because of so few absences, emphasis throughout the data analysis was on the responses given to the item "How much would you have liked to take the day off work today?" (desire to be absent).

In assessing how the proximal absence-relevant events related to both the daily self-expressed desire to be absent and actual absence episodes, three separate within-subject analyses were performed:

(1) Zero-order correlations of absence-relevant events with "desire to be absent" and absence episodes.

(2) Absence episodes and "desire to be absent" ratings were regressed separately on the absence-relevant events (analyses were done within subjects, across days of observation). This approach is very similar to that taken in policy-capturing research (cf. Hammond & Wascoe, 1980) wherein individuals are asked to make a series of judgments based on a set of paper "profiles" depicting various scenarios. Multiple regressions of the judgments on the levels of the "cues" or elements making up the profiles then provides an estimate of the relative "weights" or importance of each of the elements in the determination of the judgments. The design in the current study is even stronger in that the actual circumstances or absence-relevant events confronting each nurse daily substituted for the paper profiles and actual behavior (attendance or absence) substituted for the judgments.

(3) Absence episodes and "desire to be absent" were regressed separately on the principal component scores obtained from an across-subjects principal components analysis of the absence-relevant events.

Within-Subjects Correlational Analyses

Correlations with expressed desire to be absent. Correlational analyses were done for each of the 54 nurses. The intent was simply to look for patterns of relationships between the self-expressed desire to be absent and the absence-relevant events. The rating form items representing the absence-relevant events are presented in Table 1 and the zero-order correlations of these events with the expressed desire to be absent are presented in Table 2.

 Insert Tables 1 & 2 about here

The events that emerged as the strongest and most consistent correlates of "desire to be absent" were "Tired" (Item 10; significant in 90% of the cases, $r = .46$), "Stress" (Item 18; significant in 65% of the cases, $r = .23$), "Health" (Item 11; significant in 61% of the cases, $r = -.35$), "Personal Problems" (Item 5; significant in 56% of the cases, $r = .28$), "Job Satisfaction" (Item 1; significant in 50% of the cases, $r = -.22$) and "Work Interfering with Home Demands" (Item 20; significant in 42% of the cases, $r = -.23$). These data, then, tell us that nurses expressed a desire to be absent on those days in which any one or combination of these events prevailed (i.e., tired, in poor health, encountering personal problems, stressed, dissatisfied with job, high home demands).

Correlations with absence episodes. Correlations between events and actual absence episodes were also computed for each nurse. That is, the ratings for a given day were correlated with whether the nurses reported for duty as scheduled for that day (scored as a dichotomous variable, "0" for

attendance and "1" for absence). These correlations are presented in Table 3.

Insert Table 3 about here

Despite the low within-subject variability in absences, a few noteworthy relationships emerged. Of primary interest is the relationship between "desire to be absent" and actual absence episodes. They were significantly correlated ($p < .05$) in the expected direction in 26 of the 39 cases for which correlations could be computed (67%). The absence-relevant events most related to absence episodes were: "Health" (Item 11, significant in 85% of the cases, $r = -.39$); "Tired" (Item 10, significant in 44% of the cases; $r = .25$); and "Stress" (Item 18, significant in 31% of the cases, $r = .31$). These data suggest that the nurses tended to be absent on those days in which they were purportedly in ill health, tired, and/or stressed.

Within-Subject Regression Analysis:

Using desire to be absent as the criterion. Desire to be absent was regressed on the absence-relevant events in 54 separate within-subject analyses to determine the events best predictive of each nurse's expressed desire to be absent from work. The resulting standardized regression weights appear in Table 4.

Insert Table 4 about here

Where singularities were encountered among the predictors (e.g., where one predictor was a linear combination of two or more of the other predictors within the set), those items responsible were dropped from the model. The predictor sets accordingly ranged from 9 to 18 variables ($x = 13$, S.D. = 1.9). Forty-nine of the 52 models were statistically significant ($p < .05$).

The predominant predictors of desire to be absent were "Tired" (Item 10, significant in 62% of the cases), "Health" (Item 11, significant in 25% of the cases), "Personal Problems" (Item 5, significant in 25% of the cases), and "Stress" (Item 18, significant in 17% of the cases). These results are in general agreement with the correlational results of Table 2. Ninety-five percent of the regression models tested were statistically significant at $p < .05$ or better ($\bar{R}^2 = .63$, S.D. = .16; corrected for shrinkage, $\bar{R}^2 = .49$, S.D. = .19).

Additionally, a multiple regression selection procedure was used, specifically the RSQUARE procedure as outlined in the SAS User's Guide (1982, p. 85). This procedure selects the best "n" predictor model based on the criterion of maximizing R^2 and was used simply in an exploratory effort to identify those sets of predictors which were most consistently predictive of desire to be absent. The results of these analyses are shown in Table 5.

 Insert Table 5 about here

Again, showing general agreement with the preceding analyses, the predictors to have emerged as the most common across models and cases were "Tired" (V10), "Health" (V11) "Work Interfering with Home Demands" (V20), "Personal Problems" (V5), "Stress" (V18) and "Job Satisfaction" (V1).

For example, the best single predictor of desire to be absent in 23 cases was "Tired". The next best single predictor was "Health", best in seven of the cases. With the two predictor models "Tired" (V10) was included in the predictor set 30 times, "Work Interfering with Home Demands" (V20) included 12 times, "Job Satisfaction" (V1) seven times and "Stress" (V18) six times. The relative predominance of these same events was evident in the three-, four-, and five-predictor equations as well. All but one of the five-predictor models were statistically significant at $p < .05$.

Using absence episodes as the criterion. Within-subject regressions of absence episodes on the absence-relevant events were also performed (see Table 6). However, because of the low within-subject variability in absences - several nurses were absent only once or not at all - solutions were obtained for only 22 of the 54 cases. Fifteen of these models were statistically significant ($p < .05$).

Insert Table 6 about here

Consistent with the correlational analyses of Table 3, "Health" (item 11) was the most common predictor of within-subject absence episodes (significant in 51% of the cases). The next most common predictor was "Unit Staffing" (item 17), significant in 22% of the cases. Not converging with the correlational results, "Tired" (item 10) and "Stress" (item 18) failed to emerge as predominant predictors.

As was done using the desire to be absent item as the criterion, a multiple regression selection procedure was used to determine the best (maximal R^2) one-, two-, three-, four-, and five-predictor models for

each nurse. The results of these analyses are shown in Table 7. The best single predictor of absence in 13 of 22 cases was "Health" (item 11). Within the two-predictor models, "Health" (item 11) was included in the predictor set in 55% of the cases, "Unit Staffing" (item 17) in 18% of the cases, "Stress" (item 18) in 18% of the cases, and job satisfaction (item 1) in 14% of the cases. The relative predominance of these predictors held-up in the three- , four- , and five- predictor models as well (See Table 7).

Insert Table 7 about here

Predictors of desire to be absent and absence episodes compared. The predominant predictors of desire to be absent were items 10 (tired), 20 (work interfering with home chores), 11 (health), 5 (personal problems) and 18 (stress). Additionally, item 1 (job satisfaction) emerged as a common predictor in the two- , three- , four- , and five- predictor models. These findings were consistent with the correlational analyses of Table 2. The predominant predictors of absence episodes were items 11 (health), 17 (unit staffing) and 1 (job satisfaction). These results differ slightly from the correlational results of Table 3 wherein items 11 (health), 10 (tired) and 18 (stress) emerged as the most common correlates of within-subject absence episodes.

Re-Analysis Using Principal Component Scores

There are definite statistical/methodological problems that somewhat undermine the results presented to this point. First, the ratio of predictors to observations was quite high. Specifically, the average number of predictors was 13 and the average number of observations was 55. With

such a high ratio of predictors to observations the resulting within-subject regression weights will be unstable. This limits the confidence we can have in their interpretation. Secondly, there was no one common set of predictors used across all models. This problem arose because singularities were encountered in several of the models. Dropping those predictors responsible for the singularities in each case resulted in a varying set of predictors across cases. Accordingly, the nature of the comparisons that could be made across these cases was limited.

To this point, the strategy has been to look for consistency within and across analyses while acknowledging these statistical/methodological shortcomings - or alternatively stated - to look for some emerging pattern amidst the background "noise". Another means of addressing these problems was to do an across-subjects principal components analysis of the absence-relevant events. The intent was to reduce a large and variable set of predictors across cases to a small set of principal components common to all. This analysis was done using the Statistical Analysis System computer software package (see SAS User's Guide, 1982; p. 348). The resulting principal components are shown in Table 8.

 Insert Table 8 about here

This analysis was based on 2995 observations - however because these observations were taken across subjects and days they were not truly independent. Nevertheless, this analysis was considered to be heuristically valuable. Moreover, with the considerable consistency shown across nurses in all the preceding analyses it was deemed unlikely that unique sets of principal components would be found if the principal component analysis of

the absence-relevant events could have been done within subjects and across days of observation. (There were simply too few observations per case for this to have made much sense given the number of variables involved). Having done the analysis across subjects and days ensured greater stability in the resulting components. From this analysis seven components with eigen values greater than 1.0 emerged accounting for 56% of the total variance. The first accounted for 14% of the variance and received its heaviest loadings from items 10 (-.397; "tired"), 18 (-.395; "stressed"), 16 (.348; "disrupted sleep"), 5(-.339; "personal problems") and 11 (.339; "sick"). High scores on this item represent nurses who are tired, stressed, ill, and perhaps encountering personal problems. Accordingly this component was labelled "doldrums" (i.e., in low spirits; emotional and physical tiredness; down-trodden). It is interesting to note here that the second most frequently listed reason for past absences given in response to the open-ended questionnaire of phase I was "mental-health day". Perhaps this first principal component taps into this concept. Loading heavily on the second principal component were items 6 (.453; absence would require submitting a medical certificate), 7(.445; absence would result in a loss of pay) and 3(-.433; the nurse believes here attendance record to be poorer than her colleagues). High scores on this component would therefore seem to represent nurses in "poor standing" with respect to their attendance record. Principal component 3 was defined by items 20 (.524; work interfering with home activities), 15 (.429; important social event for which to prepare), and 14(-.393; more work than usual to be done at home). It was accordingly labelled "home responsibilities". Loading most heavily on the fourth component were items 17 (.648; unit over-staffed) and 8(-.594; higher than usual staff-patient ratio). This component was simply called "overstaffed".

The fifth principal component was identified primarily by items 4 (.472; wanting to finish incompleated work from last shift), 6 (.419; absence would require a medical certificate), 2 (.391; wanting to attend a special event at work) and 15 (.389; an important event for which to prepare). While not as clear as the preceding components this one might be said to represent nurses who are responsible for preparing some special function at work (i.e., meeting, workshop) on that day. It was labelled "work responsibilities". Principal component 6 was weighted most heavily by items 16 (.458; disruption in sleep), 5 (.431; fewer personal problems than usual) and 10 (-.318; tired). This one was simply referred to as "disrupted sleep". Finally, component 7 was defined by items 13 (.548; sick friend or relative needing care), 2 (.529; wanting to attend a special function at work), and 12 (.422; recent death among family or friends). This component was labelled "compassionate leave".

Within-subject regressions of desire to be absent on principal component scores. Desire to be absent was regressed on the principal component scores in 54 separate within-subject analyses. The resulting standardized weights are reported in Table 9.

 Insert Table 9 about here

The most consistent predictor of desire to be absent was "doldrums" (PC 1), which was statistically significant ($p < .05$) in 33 of 51 cases. Again, high scores on this component represent nurses who are tired, stressed, not feeling up to par, and perhaps encountering personal problems. These

results therefore correspond well with those obtained from the within-subject regressions of desire to be absent on the absence-relevant events (Table 4), and the within-subject correlational analyses of Table 2. In those analyses the variable most consistently related to desire to be absent were "tired" (item 10), "health" (item 11), "personal problems" (item 5) and "stress (item 18) (all of which define the "doldrums" components). Other principal components to have emerged as fairly common predictors were "home responsibilities" (PC3; significant in 11 cases), "over-staffed" (PC4; significant 10 times), "poor standing re attendance" (PC2; significant 8 times) and "compassionate leave" (PC7; significant 8 times). In all cases the directions of these relationships were in general agreement with expectations. Specifically, a nurse's predicted desire not to report for work was greatest when: she was not feeling "up to par"; her home responsibilities were greater than usual; her unit was over-staffed (i.e., when her attendance was less critical); she felt her attendance record was good over the preceding three months; and there was either a sick relative to care for or a funeral to attend.

Within-subject regressions of absence episodes on principal component scores. Within-subject regression analyses were again performed, this time using absence episodes as the criterion and the principal component scores as predictors. The standardized regression weights are reported in Table 10.

 Insert Table 10 about here

Once again, because of the low within-subject variability in absences (i.e., several cases of 0 or 1 absences), solutions were found for just 22 of the 54 cases. The predominant predictors to have emerged here were: "doldrums" (PC1; significant 8 times), "home demands" (PC3; significant 8 times) and "disrupted sleep" (PC6; significant 6 times).

Predictors of absence episodes and desire to be absent compared.

Whether absence episodes or desire to be absent served as the criterion, PC1 ("doldrums") and PC3 ("home responsibilities") emerged as the dominant and most consistent predictors across the various regression models considered. These findings are in agreement with the earlier analyses wherein desire to be absent and absence episodes were regressed separately on the absence-relevant events (see Tables 4 and 6 respectively). For example, the predominant predictors of desire to be absent were "tired" (item 10), "work interfering with home activities" (item 20), "personal problems" (item 5), and "stress" (item 18). All these same items load heavily on the "doldrums" component. The most common predictor of absence episodes was "health" (item 11), which also loads most heavily on the first principal component. It appears that the "doldrums" component is the strongest and most common predictor of both desire to be absent and absence episodes.

For a summary overview of all findings reported to this point see Table 11. Mean r 's and R^2 's are also presented to provide some indication of the strength of the relationships observed.

 Insert Table 11 about here

Discussion

Statistical and Methodological Limitations

Statistical and methodological problems plague several of the reported analyses. The multiple regressions of desire to be absent on the absence-relevant events could be considered questionable treatment of the data because of the extremely low ratio of observations to predictors. Accordingly not much faith could be placed in the interpretation of any single within-subject regression model. Moreover, because some of the predictors were linear combinations of two or more of the predictors in many of the models (the singularity problem), some of the absence-relevant events had to be dropped from the analyses. In dropping the variables responsible for the singularity there no longer was a common set of predictors across subjects. This limits the across-subject comparisons that might be made. Also, the problem arises that a very low frequency event such as a family death might be certain to cause an absence yet fail to emerge as a prominent predictor either because of its low variance or because it was dropped from the analysis to eliminate a singularity problem. (Of course it might be argued that because a family death is such a low frequency event it really is not a major cause of absenteeism anyway).

To address these problems in part, an across-subjects principal components analysis of the absence-relevant events was performed to reduce the predictor set to a few components common to all nurses. While the seven resulting components were clearly interpretable, they accounted for only 56% of the total variance. Finally, because there were so few absences, desire to be absent (item 9) served as a more appropriate criterion for statistical analyses than did absence episodes. This was not entirely unanticipated;

absenteeism is typically such a low base-rate phenomenon that recent papers have been devoted solely to the issue of how best to deal with absence as a criterion (cf. Atkin & Goodman, 1984; Avery & Hotz, 1984; Hulin & Rousseau, 1980; Landy, Larsey & Smith, 1984).

A Synthesis of the Reported Findings

Given these methodological and statistical limitations, the strategy adopted here was to try to identify emerging consistencies across cases and analyses. There was surprising consistency across nurses in the relationship of the absence-relevant events to both the expressed desire to be absent and actual absence episodes (despite the fact that absence episodes had a mean correlation of just .24 with the "desire to be absent" item - albeit the relationship between these two variables was statistically significant in 26 of 39 cases or in 67% of the analyses done). The consistency is evident in Table 11. Specifically, items 10 (tired), 11 (health), 5 (personal problems), 18 (stress) and 20 (work interfering with home activities) were consistently related to desire to be absent across nurses and analyses. It is also evident that items 11 (health), 10 (tired), 18 (stress) and 17 (unit staffing) were consistently related to absence episodes, again across most nurses and analyses. The strongest single correlate of expressed desire to be absent and absence episodes was item 10 (tired, $r = .46$) and 11 (health, $r = -.39$) respectively. Using the principal component scores, the strongest and most consistent predictors of both criteria were the components labelled "doldrums" (PCI) and "home demands" (PC3). Since "tired" (item 10), "health" (item 11), "personal problems" (item 5) and "stress" (item 18) define the "doldrums" component, and "work interfering with home activities" (item 20) helps define the "home

demands" component, there is almost perfect consistency in the results of all analyses done. These findings also agree with the most frequently self-reported reasons given in phase 1 for past absences (i.e., "minor illness", "mental health day", "tired", "work to be done at home"). Accordingly, despite the statistical and methodological limitations of this study, there was useful consistency in the results obtained across nurses, criteria, and analyses.

Integration with previously reported studies. This study contributes to the absenteeism literature in that it is the first to have used a within-subjects longitudinal design and to have addressed the influence of proximal absence-relevant events. When these events were used as predictors, a mean of 53% ($\bar{R}^2 - \text{Adj}$ for shrinkage = .37) of the within-subject variability in absence was accounted for; with the principal component scores as predictors, a mean of 31% ($\bar{R}^2 - \text{Adj} = .22$) of the variance was explained.

In the current study it was found that a physical and psychological state of "low spirits" (or "doldrums") and competing home demands were consistently related to the expressed desire to be absent and actual absence episodes. The label "doldrums" is best described as a temporary mood state characterized by stress, tiredness, mild depression, and a general feeling of simply not being "up to par". Since all but one nurse in the sample were female, the question arises as to whether the results obtained are unique to this sex (or occupation). Although no comparison between sexes could be made here, it certainly would be an area worthy of more research.

Absenteeism and sex-related differences in the experience of acute emotional symptomatology. Previous research has shown there to be a tendency for women to exhibit the symptomatology of low emotional well-being to a greater extent than men (cf. Jick & Mitz, 1985). In their review of the literature on sex differences in work stress, Jick & Mitz (1985) concluded "the accumulated evidence suggests that though men are more prone to serious incapacitating illnesses than women, women more often tend to suffer from less severe psychological problems with a greater incidence of acute symptoms" (i.e. depression, headaches, dizziness, stomach upset; p. 412). The authors suggested that the greater frequency in which women experience these acute stress-related symptoms may be largely explained by the fact that they typically maintain major responsibility for the home and family; "the stress of being both homemaker and career women might be expected to lead to proportionately more severe strains" (p. 414). For example, parenthood has been found to be a greater stressor for women than men (Aneshensel, Frerichs, & Clark, 1981) as has the number of children (Gove & Geerken, 1977). Cleary and Mechanic (1983) reported a positive correlation between number of children and depression for working women, particularly for those with lower income. The findings of the current study -- that a temporary mood state of being in low spirits ("doldrums") and "competing home demands" were most strongly and consistently related to the desire to be absent and actual absenteeism -- is certainly consistent with this body of literature.

A Future Avenue for Absenteeism Research

Perhaps what is most surprising is that the two areas of research -- absenteeism and work stress -- have not been well cross-referenced. For

example, a myriad of research has shown across diverse samples that women tend to be absent more frequently than men (cf. Educational Research Services, 1980; Muchinsky, 1977; Porter & Steers, 1973; Steers & Rhodes, 1978). Indeed, this is by far the most widely agreed upon finding in the absenteeism literature. While there are a handful of studies that reported a positive correlation between various measures of stress or anxiety and absenteeism in the general samples studied (cf. Educational Research Service, 1980; Jamal, 1984) there has been no breakdown of these findings by sex. More specifically, there have been too few attempts to determine the reasons underlying the sex-related differences in incidences of absenteeism (cf. Isambert-Jamati, 1962; Markham, Dansereau, & Alutto, 1982). Nicholson and Johns (1985) commented:

Significant relationships between absence and personal characteristics such as sex [emphasis added], age, and tenure seem to be more universal but poorly understood. Evidently because no theory underlies the pursuit of these associations, they have not stimulated more sophisticated, informative research. Thus no theoretical stream has emerged from this work (p. 397).

Hedges (1973) and Isambert-Jamati (1962) provide some evidence to suggest that sex differences in absence rates narrow within high-responsibility occupational groupings; that the differences are more pronounced when women were concentrated in low paying jobs of minimal autonomy. Jick and Mitz (1985) have suggested that the tendency for women to occupy more of these lower level positions than men may also help to explain the sex related differences in work stress. Cross-referencing the work stress literature with existing absenteeism research would suggest that the greater frequency in absence among women over men may be largely due to the greater frequency in which women are known to experience acute stress-related symptoms. The

results of this study, which used a sample that was 98 per cent female, showed that most absences were associated with episodic bouts of "low spiritedness" (doldrums -- emotional and physical tiredness, headaches, mild depression etc.) Perhaps the frequency in which such bouts are experienced among women leave them more vulnerable to taking time off from work when events known to sometimes induce absence arise (lowers their threshold). Certainly this would be a worthwhile question for future research to address.

Implications of Findings

The research findings reported here suggest that it is not in the best interest of the hospital to discourage all absences, since a nurse in such "low spirits" may have difficulties meeting the social, emotional, and physical demands placed upon her in a typical shift. This idea that not all absences are detrimental to an organization is not new. Staw and Oldham (1978) and Steers and Rhodes (1978) have argued that in permitting a temporary retreat from work-related stress, some absences may actually be healthy for an organization -- they may well prevent the episodic bouts of "low spiritedness" from developing into a more permanent state of "burnout". Moreover, the benefits of allowing the occasional absence is likely to be particularly great in health-care settings, such as those studied here, where nurses are directly responsible for the welfare of others.

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Table 1

Rating Form Items Representing Absence-Relevant Events		Scoring Key ^a
1.	In general, how satisfied are you with your job today?	-
2.	Are/were there any special events at work today that you are/were interested in attending? (no=0, yes=1)	+
3.	In your opinion your attendance record over the past three months has been (poor=0, average=1, good=2)?	+
4.	Was/is there any unfinished work from your last shift that you want(ed) to complete today? (no=0, yes=1)	+
5.	How much are there personal problems affecting you today? (i.e., depression, domestic dispute, etc.)?	-
6.	Would an absence from work today require that you submit a doctor's certificate on return to work? (no=0, yes=1)	+
7.	Would/will your absence from work today result in a loss of pay for you? (no=0, yes=1)	+
8.	The number of patients on your ward/unit today compared to the number of staff scheduled is (scored low to high)?	+
9.	How much would you have liked to take the day off work today?	-
10.	How tired were you just before your shift today?	-
11.	In general, how would you describe your health before your scheduled shift today?	-
12.	Has there been a death among family or friends over the last few days? (no=0, yes=1)	+
13.	Is there a sick friend or relative whom you could be caring for at home today? (no=0, yes=1)	+
14.	The amount of work needed to be done at home today is/was: (scored from more to less than usual)	-
15.	Is there an important social event that you have had to, or will have to, prepare for today? (no=0, yes=1)	+
16.	Was there any disruption today in the amount of sleep you normally get before your scheduled shift? (n=0, yes=1)	+
17.	If you were not to show up to work today it's likely that your unit would be (scored short-staffed to over-staffed)?	+
18.	How stressed did you feel before shift today?	-
19.	How much does going to work today interfere with activities going on at home?	+

^aIndicates direction of scoring.

Table 3
Correlations Between Absence and Absence-Relevant Events^a

Subject #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	20	N ^b
01	09	-10	03	-12	-04	-01	-02	01	-23*	-31**	38**	-03	-	-01	-07	30	16	-15	-03	82
02	10	-03	-	-	01	-	-	11	-19	-19	33**	-	-	29*	-02	-05	14	24*	-02	60
03	17	-04	03	-06	06	-	-	-09	-35**	-12	26**	-04	-	21	-07	11	03	03	-04	66
04	14	-07	-04	-20	-15	-	-	06	-39**	-19	48**	38**	-03	13	-06	15	-11	03	00	57
05	-	-	-	07	19	-	-	-	-	-	20	1.00**	12	-04	-10	-09	18	-	-11	35
06	15	-08	-16	-	-	-04	-	-04	03	-49**	54**	-	-	-04	-07	25	-04	-	-	37
07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27
08	-	-07	-	-03	-31**	-	-62**	03	-37**	-26*	33**	-	22	-15	-05	26*	11	-33*	-08	62
09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	54
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	72
12	15	07	-07	-09	-07	-	-	-	-13	-16.	32	-	-	04	-06	26	09	01	-05	62
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	64
14	69**	-06	-15	-	-49	-	-04	27*	-40**	-51**	54**	19	-	-	24	-07	10	-13	06	59
15	21	-09	-	-	-10	-70**	-	-	-42**	-34*	45**	-	-03	-18	-08	17	09	-06	-03	52
16	48**	17	03	-	-35**	-	70**	-17	-56**	-39**	34**	-08	21	-15	-07	13	13	-47**	-04	54
17	-	-	-31**	-02	-41**	-	-	-	-	-	18	-	-	03	-05	-06	-03	-34**	41**	59
18	62**	30**	-	-03	01	-02	-03	29	-34**	-28*	41**	-01	-	03	-04	-02	-18	-60**	-04	73
19	05	-05	01	-	-35**	-04	-04	06	-48**	-44**	42**	-	27*	06	-06	-09	-01	-31*	-05	53
20	32**	-07	09	39**	09	-11	-07	14	12	-15	46**	-	-	19	-11	05	-24	-36**	-07	57
21	17	-03	05	-02	10	-	-02	-16	01	05	12	1.00**	-	19	26*	-06	05	-14	07	60
22	-	-	02	-	-01	-	-	-	07	-18	36**	-02	-03	08	-06	-07	09	05	-	62
23	04	-	02	-01	-17	-	-	05	-41**	-11	51**	-02	-	-03	-02	-04	09	-04	1.00**	67
24	27*	-06	-25*	-07	-03	03	03	-10	-20	-19	29**	-	-	08	-05	25*	-15	-31**	-28*	67
25	17	-05	01	14	01	-01	-	-	-31**	-	39**	-	-05	02	-04	-06	-05	-	-	82
26	21	-06	-	-03	-	-	-	-02	-42**	-23	41**	70**	-01	23	-03	31**	-07	16	-02	67
27	-04	-04	03	-	-10	-	-04	-	-32**	-16	17	-03	-	08	-04	-05	06	-26*	-05	63
28	-	-	04	-03	05	-	02	-04	-30**	-	51**	-	-02	07	-06	24	-08	06	-05	63
29	05	-06	-	-07	02	-	-04	-04	-42**	-47**	37**	-	-02	-22	-07	34**	15	01	-02	73
30	07	-11	-11	44**	14	-06	-	02	-39**	-36**	54**	-	-09	20	-05	21	03	03	-25	70
31	-	-07	-05	-17	-17	-	-	08	-28*	-32**	47**	-05	-	-21	-03	24	-05	-16	-07	63
32	13	-05	08	-02	03	-	-	-29*	13	-33**	19	-	-04	09	-04	07	12	04	-	60

Table 3 (continued)

Subject #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	20	# ^b
33	-	-08	-09	-04	34*	61**	16	22	-30*	-08	39**	-	-13	04	17	08	-18	-15	-	62
34	06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40
35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	73
36	06	18	-17	13	-12	-20	15	-06	-08	-18	46**	-03	-03	-11	-05	25*	08	-22	-06	61
37	-01	-	-	-03	02	-	18	-27	-19	-22	47**	-	-	03	-06	24	08	-22	-07	53
38	-05	-03	-	-	-51**	-	02	-25*	-10	12	38**	48**	-	-07	18	-18	47**	-28*	09	59
39	01	-35	-	-02	01	-02	-04	-	-48**	-24	55**	-	-	07	-07	-04	-06	-41**	-	59
40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32
41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	71
42	-04	-04	-	-	03	-	-	39**	-23	-	1.00**	-02	-02	-13	-08	20	07	06	08	59
43	-	-04	-	-01	-01	-01	-	-	-28*	-28*	13	-	-	-14	-05	-10	-	01	-	65
44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	64
45	32*	23	10	-13	-25	-	-05	17	-37**	-42**	68**	-	-	09	-13	40**	-06	-32*	05	46
46	30**	-06	-18	-05	01	-	-	02	-32**	-27*	36**	-	-07	14	-02	-07	28*	04	-06	67
47	-	-07	-	-	-25	02	15	-	-26*	-40**	50**	-	-06	11	-11	18	-	-23	-09	57
48	20	-07	-04	-04	-05	-	-06	06	-30*	-23	26*	-	-06	-11	25	13	19	-14	06	59
49	10	14	-	-04	04	-02	-02	-	-15	-12	35**	-	-	03	-05	-07	07	-08	-07	79
50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	58
51	14	-07	10	-05	01	-04	-23*	06	-40**	-27*	41**	-	-05	-09	-06	09	37**	-02	25*	72
52	-08	-02	-	-04	-	28**	-03	-	28**	-	-02	-01	-	05	-04	-06	24*	-	-04	71
53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	60
54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	81
\bar{X}	14	-02	-04	00	-07	02	01	02	-24	-25	39	15	05	02	-02	09	05	-13	02	61 ^o
S.D.	18	11	11	13	18	25	23	16	19	14	17	32	25	13	10	15	14	19	19	10
#	7	1	1	2	4	6	2	4	26	17	33	4	2	2	1	6	4	12	4	M/A

^a Decimals omitted; dashes (-) indicate zero variance in one of the two variables.

^b Number of observations might differ slightly across items because of missing values.

^c This mean does not include cases for which there were zero absences.

* p < .05

** p < .01

Table 4
Standardized Regression Coefficients from Multiple Regressions of Desire to be Absent
On Absence-Related Events

Subject	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	20	R ²	R ² -Adj	N	d.f.
01	045	038	022	-017	150	028	-164	-150	256	-182	124	-	-	170	217*	-202	-176	-032	-163	64**	43	78	17,60
02	037	055	-	-207	009	-	-	255	366*	019	-	-	-	167	-033	-096	086	349*	-453**	58**	33	58	13,44
03	-002	076	-160	051	286	-	-	075	-110	-311*	085	-	-	200	-127	-051	050	273	-314*	53**	22	63	15,47
04	-215	110	-085	-023	590**	-	-	-102	198	-103	-050	098	098	020	-044	-008	269*	009	-	61**	32	56	15,40
05	-219	149	000	044	-068	-	-	-034	096	-400	-	-	-	018	-210	307	-178	087	377*	71**	29	32	13,18
06	-285*	130	-193	000	101	-089	-	181	403**	-032	-	-	-	67**	080	-378**	061	-	-	78**	54	36	12,23
07	-077	023	-	-063	198	-	-	782**	600**	-516	-	-	-551*	306	-	228	1198**	-164	-483	91**	68	24	13,10
08	-023	064	-	-069	355**	-	104	-032	575**	098	-	-	-082	-108	047	193	-176	282	-248	81**	66	56	15,40
09	-074	-146	-	-	196	-	-	-078	245	-107	-	-	-	700**	133	-145	033	-060	364	42*	06	53	12,40
10	-243	211	-	-	-055	-	-	236	245	-106	-	-	-	-538**	295**	019	-	520**	-	71**	40	31	10,20
11	-083	006	024	-113	508**	471**	-	019	213	103	-	-	-	033	-104	-238**	-	-033	-247*	82**	74	72	13,58
12	-104	006	-044	-004	197	-	-	-174	323*	-315	-	-	-	-122	-220	002	255	010	-204	51**	12	52	14,37
13	037	-001	-	-	-	-	-	-023	137	-261	037	-	-007	-	-	-	-044	-081	-010	11	-26	60	10,49
14	064	128	097	-	-273*	-	145	114	420**	-513**	-059	-	-	-	-032	058	142	007	-625**	82**	70	59	14,44
15	-493	021	-140	-	460	-	-	171	299*	-011	-	-	-004	-041	114	076	-076	108	014	81**	66	50	14,35
16	-403*	-053	-040	-	-025	-	-	102	328*	-071	246	-	-041	156	034	018	096	205	-424*	56**	13	47	15,31
17	046	-211	080	047	077	-	-	-029	096	053	-	-	-	090	209	-190	-178	016	-393*	29	-20	56	14,41
18	-139	237*	-	052	039	-389**	119	039	433**	195	086	-	-	-187	098	-050	-216	520**	-141	62**	38	71	16,54
19	-161	-030	390	-	190	362	-	-116	401**	-113	-	-	-187	-070	041	-123	-212	-023	045	50*	07	52	15,36
20	-157	150	063	322*	483**	313	005	206	079	-309*	-	-	-	044	-053	-217	-196	-036	-046	55**	17	56	16,39
21	094	-142	-056	107	-046	-	-047	-097	307*	-060	-	-	193	359**	012	-055	-156	142	155	50**	10	57	16,40
22	-182	021	-048	007	-040	-	-	-170	-157	-105	042	-	-187	168	-529**	-065	-057	287	-012	47*	02	56	16,39
23	-136	-	-105	032	147	-	-	280*	445**	-277**	075	-	-	148	009	030	193	053	-	62**	42	64	13,50
24	-213*	-001	-063	057	281*	189	-	005	439**	-008	-	-	-	025	-149	-072	-036	149	-066	66**	44	63	15,47
25	047	278**	-059	-089	-076	094	-	-018	343**	-138**	-	-	-213	099	076	012	-101	155	106	62**	42	79	16,62
26	-021	-030	-	063	-057	-	-	-003	175	-147	-444*	143	143	-105	-015	-142	142	-139	-178	44*	05	60	15,44
27	-045	022	080	-	-	-	-	-214	030	-453**	149	-	-	-097	-224*	-144	-064	255	024	66**	45	62	14,47
28	028	165	014	-175	-297	-	-	012	380**	-154	-	-	-273	-197	-282	238	072	616**	-481*	73**	48	51	15,35
29	-192	-012	000	155	257	-	-	130	142	-497**	-	-	-108	175	-095	-067	126	-104	000	62**	45	72	13,58
30	-244*	236**	137	-018	001	008	-	299**	368*	-201	-	-	099	136	118	-235	145	-261*	-103	67**	45	66	16,49
31	110	129	-135	134	329*	-	-220	-293	462**	-036	175	-	-	208	-078	218	-409**	133	069	58**	25	59	16,42
32	080	002	-225	202	-231*	-	-	233	537**	-228	-	-	-189	120	-082	103	049	-110	075	59**	26	56	15,40

Table 4^b (continued)

Subject	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	20	R ²	R ² -Adj	N	d.f.	
33	-157	-195*	-	-047	008	-	-	-002	574**	-112	-	-	-	104	065	-099	-011	121	143	60**	37	61	13,47	
34	318*	102	046	-163	208	-	-298*	-284*	-266*	-420**	-	-	302	373**	129	-242	-154	180	-573**	90**	74	38	17,20	
35	-183	-126	-	930	639*	-	-	-	570	609**	975	-	578	110	542	636	-	717	109	46**	17	65	13,51	
36	098	-290*	-097	296*	003	-342	274	-020	-154	-488**	145	-	199	114	-276	-141	-197	190	-189	57**	20	61	18,42	
37	-131	-	-	-027	012	-	027	232*	603**	262**	-	-	-	-359**	114	006	170	387**	-532**	84**	73	53	13,39	
38	-033	047	-	-	-227	-	026	-012	295*	-147	119	-	-	019	-018	202	002	-074	-814**	75**	57	55	14,40	
39	059	008	-	061	117	-115	282**	140	234*	158	-	-	-	119	-483**	-178	094	294**	-203	66**	40	56	15,40	
40	-345	325	794**	119	325	-	-	-213	-447*	347	-019	-	-	392*	042	203	132	154	-325	78**	34	31	15,15	
41 ^o	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11,55
42	057	-114	-	-043	142	-	-	149	270	-	-089	-	-027	-225	-088	111	-178	452*	-228	45**	03	53	14,38	
43	-019	-202	-	-	-034	-270**	-	-036	559**	-072	-	-	-	075	-063	262	221	000	-254*	54**	28	61	13,47	
44	-233*	-	-	-	-	-	-	-104	413**	-205	-	-	-	107	149	106	198	216*	-161	66**	50	54	10,43	
45	-028	245*	-069	290	-587*	-	126	277	599*	-115	-	-	-	-198	-013	114	271	309	-527*	84**	65	40	15,24	
46	-048	-130	-056	326**	155	-	-	-160	545**	-107	-	-	-115	098	101	120	-245*	060	-238*	71**	52	63	15,47	
47	-039	-147	-	-001	834**	-051	054	079	-103	-115	-	-	214	022	051	073	-	052	-108	79**	61	56	15,40	
48	-041	185	-208	199	-114	-	169	-045	954**	-059	-	-	-108	-013	014	304**	-125	403**	-185	63**	34	58	16,41	
49	-181*	009	-	-047	044	-111	097	-109	439**	-208	-	-	-	-	-017	-075	-112	034	-378**	65**	49	77	14,62	
50 ^o	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9,47
51	-322**	-030	103	236**	205**	-148*	052	-029	293**	-324**	-	-	002	-03	143	-196*	-	178	-100	84**	71	61	17,43	
52	-322**	-110	-	-053	-062	204	-338	051	363**	-105	-421*	-	-	047	-097	181	006	-102	-204	44**	08	69	16,52	
53	-870	-425	-786	-248	097	-	-	-126	-113	-1461	-075	-	-	077	-603	1097	682	735	-912	91	-44	18	15,2	
54	-179	-122	-106	097	441**	-	573**	139	181	023	047	-	-	-049	-175	-001	-175	374**	053	59**	35	78	16,61	
\bar{X}																								
S.D.																								
N	9	6	1	4	13	4	3	5	32	13	2	2	1	7	5	4	5	11	15	49				
																					63	38	56	
																					16	21	13	

^a Decimal omitted; dashes (-) indicate that the item was dropped from the model because significance was compromised.

^b Estimate of shrinkage based on Lord-Balaban formula (Stimitt et al. 1977)

^c Zero variances in item 9

* p < .05

** p < .01

Table 5^a

The Best One-, Two-, Three-, Four- and Five- Predictor Regression

Models Using Desire to be Absent as the Criterion^b

Subject #	1		2		3		4		5		R ²	R ² -Adj ^o	N									
	R ²		R ²		R ²		R ²		R ²													
01	V10	37	V10	V20	50	V5	V10	V20	53	V10	V14	V15	V16	55	V5	V10	V14	V15	V16	57	28	78
02	V18	27	V10	V20	44	V10	V8	V18	49	V8	V10	V18	V20	51	V4	V8	V10	V18	V20	54	18	58
03	V18	21	V18	V20	30	V5	V11	V20	38	V5	V11	V18	V20	44	V3	V5	V11	V18	V20	47	06	63
04	V5	41	V5	V10	50	V5	V10	V17	54	V1	V5	V10	V17	57	V1	V2	V5	V10	V17	59	20	56
05	V18	38	V11	V20	49	V1	V11	V20	57	V1	V10	V16	V20	62	V1	V10	V11	V16	V20	66	-06	32
06	V10	38	V10	V14	58	V10	V14	V16	64	V1	V10	V14	V16	69	V1	V3	V10	V14	V16	71	30	36
07	V13	12	V10	V13	36	V10	V13	V18	53	V5	V10	V16	V18	60	V10	V13	V14	V16	V18	71	-85	24
08	V10	64	V5	V10	71	V5	V10	V16	73	V5	V10	V16	V20	76	V5	V10	V16	V17	V20	77	55	56
09	V10	17	V10	V14	26	V5	V10	V14	31	V5	V10	V14	V17	33	V2	V5	V10	V14	V20	36	-11	53
10	V10	35	V1	V10	44	V2	V14	V18	55	V2	V10	V14	V18	59	V1	V10	V14	V15	V18	64	15	31
11	V5	50	V5	V16	68	V5	V6	V16	72	V5	V6	V16	V20	76	V5	V6	V15	V16	V20	78	66	72
12	V11	20	V10	V11	30	V10	V11	V20	37	V10	V11	V17	V20	42	V10	V11	V15	V17	V20	45	-07	52
13	V11	10	V10	V11	10	V10	V11	V18	11	V10	V11	V17	V18	11	V8	V10	V11	V17	V18	11	-31	60
14	V10	41	V11	V20	68	V10	V11	V20	74	V5	V10	V11	V20	78	V2	V5	V10	V11	V20	79	62	59
15	V1	50	V1	V5	68	V1	V5	V10	74	V1	V3	V5	V10	77	V1	V3	V5	V8	V10	78	55	50
16	V18	22	V1	V18	33	V1	V10	V20	42	V1	V10	V12	V20	50	V1	V10	V12	V18	V20	52	-09	47
17	V20	12	V16	V20	18	V5	V16	V20	21	V2	V5	V16	V20	24	V2	V5	V15	V16	V20	27	-34	56
18	V10	33	V10	V18	43	V6	V10	V18	50	V6	V10	V18	V18	55	V2	V6	V10	V17	V18	57	26	71
19	V10	28	V10	V11	35	V5	V10	V14	38	V10	V13	V14	V16	41	V1	V10	V13	V14	V16	44	-15	52
20	V5	16	V5	V11	25	V4	V5	V11	38	V2	V4	V5	V11	42	V2	V4	V5	V10	V11	44	-14	56
21	V14	19	V10	V14	36	V2	V10	V14	40	V2	V10	V13	V14	42	V2	V10	V14	V17	V18	44	-12	57
22	V15	34	V15	V18	37	V8	V15	V18	40	V8	V13	V15	V18	41	V1	V8	V13	V15	V18	43	-16	56
23	V10	45	V10	V11	50	V8	V10	V11	53	V5	V8	V10	V11	56	V5	V8	V10	V11	V14	57	30	64
24	V10	38	V5	V10	53	V1	V5	V10	60	V1	V5	V10	V18	62	V1	V5	V6	V10	V18	63	34	63
25	V11	39	V10	V11	48	V2	V10	V11	54	V2	V10	V11	V18	57	V2	V10	V11	V13	V18	59	34	79
26	V12	26	V12	V20	31	V12	V18	V20	35	V12	V13	V18	V20	37	V11	V12	V13	V18	V20	39	-12	60
27	V11	46	V8	V11	52	V8	V11	V15	57	V8	V11	V15	V18	62	V5	V8	V11	V15	V18	63	36	62
28	V20	38	V10	V20	56	V2	V10	V20	59	V2	V10	V18	V20	61	V2	V10	V11	V18	V20	63	22	51
29	V11	42	V11	V16	48	V1	V11	V16	52	V1	V4	V11	V16	54	V1	V4	V11	V14	V16	56	33	72
30	V10	33	V1	V10	42	V2	V11	V16	48	V1	V2	V8	V10	54	V1	V2	V8	V10	V16	57	23	66
31	V10	28	V10	V17	38	V5	V10	V17	44	V2	V5	V10	V17	47	V2	V5	V8	V10	V17	49	00	59
32	V10	31	V8	V10	41	V5	V8	V10	45	V3	V5	V8	V10	49	V3	V5	V8	V10	V13	50	03	56

Table 5^a (continued)

Subject #	1		2		3		4		5		R ²	R ² -Adj ⁰	N					
	R ²		R ²		R ²		R ²		R ²									
33	V10	43	V1	V10	55	V1	V2	V10	V11	56	V1	V2	V10	V14	V20	57	28	61
34	V20	40	V11	V20	61	V5	V11	V14	V20	79	V5	V7	V11	V14	V20	82	35	38
35	V11	23	V5	V11	28	V5	V10	V11	V12	35	V5	V10	V11	V12	V13	37	-01	65
36	V11	22	V11	V20	38	V4	V11	V20	46		V2	V4	V11	V15	V18	50	08	61
37	V10	58	V10	V20	68	V10	V18	V20	79		V10	V11	V14	V18	V20	81	65	53
38	V20	64	V5	V20	67	V5	V10	V11	V20	71	V5	V10	V11	V12	V20	73	50	55
39	V6	30	V6	V15	41	V6	V15	V18	55		V6	V7	V15	V16	V18	58	19	56
40	V1	29	V1	V5	41	V1	V5	V8	46		V1	V2	V3	V5	V10	58	-80	31
41 ^d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	V18	22	V10	V18	28	V8	V10	V18	32		V10	V14	V18	V20	V20	39	-17	53
43	V10	29	V6	V10	34	V6	V10	V17	38		V6	V10	V16	V17	V20	48	13	61
44	V10	46	V10	V20	50	V1	V10	V17	59		V1	V10	V15	V17	V20	61	39	54
45	V10	47	V10	V20	57	V5	V10	V19	68		V2	V5	V7	V10	V20	79	42	40
46	V10	44	V4	V10	53	V4	V5	V10	58		V2	V4	V10	V13	V17	63	34	63
47	V5	72	V5	V13	74	V2	V5	V13	75		V2	V5	V13	V15	V20	76	53	56
48	V10	25	V10	V18	41	V10	V16	V18	48		V2	V10	V16	V18	V20	56	13	58
49	V10	43	V10	V20	57	V1	V10	V11	63		V1	V8	V10	V11	V20	63	43	77
50 ^d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51	V10	38	V5	V11	52	V5	V7	V10	60		V4	V5	V7	V10	V11	71	42	61
52	V10	22	V1	V10	28	V1	V10	V12	33		V1	V10	V12	V16	V20	38	-08	69
53	V20	27	V1	V20	41	V1	V11	V20	56		V1	V11	V17	V20	V20	72	-99	18
54	V5	19	V5	V7	36	V5	V7	V18	46		V5	V7	V8	V10	V18	53	24	78
\bar{X}		34			45				51							57	31 ^e	56
S.D.		14			14				15							15	17	13

^a Decimals omitted
^b Models selected on basis of maximizing R-Square (see RSQUARE procedure, SAS User's Guide, 1982, p. 85)
^c Shrunken R-Squares estimated by Darlington (1968) formula (see also Schmitt et al. 1977)
^d Zero variance in item 9
^e Negative values not included in calculation of the mean.

Table 6^a

Standardized Regression Coefficients from Multiple Regressions
of Absence Episodes On Absence-Related Events

Subject #	1	2	3	4	5	6	7	8	10	11	12	13	14	15	16	17	18	20	R ²	Adj-R ²	N	d.f.
01	001	-078	099	-027	-057	-099	141	-036	129	508**	-036	-	156	-091	397**	250*	104	-184	33*	-05	77	17,60
04	-080	015	-021	-249	071	-	-	043	-103	309*	463**	022	176	-075	-041	-205	091	-	42**	-01	55	15,40
06	169	-067	-340	-	347	-086	-	091	-223	789**	-	-	-126	021	-380	003	-	-	49	-06	35	12,23
14	409*	-061	015	-	-513**	-	-048	069	-188	197	-172	-	-053	-018	021	068	375**	015	67**	46	58	14,44
18	971*	-020	-	-372**	132	043	-190	150	-038	150	-439**	-	-	-001	131	122	-091	-047	83**	73	70	16,54
19	190	152	383	-	017	062	-	270	-425*	240	-	531*	114	196	-366	378*	217	-366*	41	-08	51	15,36
20	085	-063	106	127	068	-146	082	-103	-011	398**	-	-	164	-209	-045	-126	-280	076	45**	00	55	16,39
23	097	-	050	043	012	-	-	-046	-057	808**	-057	-	-086	001	-021	-155	287	-	57**	34	63	13,50
24	115	-115	-021	-052	356	042	-	-226	051	062	1,40**	-	-205	-163	316	-116	-259	-059	22	-29	62	15,47
26	000	000	000	000	000	000	000	000	000	000	1,00**	-1,00**	000	000	000	000	000	000	1,00**	1,00	60	15,49
27	-075	003	074	-	003	-	-	-065	-169	-086	-	-	205	049	-082	-004	-292	-099	12	-40	61	13,47
29	-027	-007	-	-034	239	-	-	006	-437**	191	-	-015	-146	015	197	049	102	-	40**	12	71	13,58
30	-021	-100	-213	211	152	-196	-	072	-321	416**	-	-054	225	010	-143	040	197	-023	53**	22	65	16,49
34	-174	096	226	143	-018	914**	169	385*	117	291	-	-190	424**	-003	-278	199	-287	040	82**	52	37	17,20
36	-021	098	014	140	052	-1,00**	1,48**	053	-146	084	-103	-343*	-132	-241	111	076	-132	141	70**	43	60	18,42
37	084	-	-	119	095	-	177	-222	-011	478**	-	-	044	-082	043	134	-129	-017	37	-06	52	13,39
38	010	-016	-	-	-247	-	077	-002	124	504**	-049	-	075	021	006	271	158	-178	67**	44	54	14,40
45	287	052	-130	-094	117	-	207	181	-057	656**	-	-	233	-003	-038	055	-042	133	60**	10	39	15,24
46	207	-009	-654**	-066	-080	-	-	121	-265	457*	-	-101	107	-241*	-221	308**	077	171	56**	28	62	15,47
48	193	-008	-330	059	168	-	096	482*	-208	135	-	-334	-140	237	009	730**	077	-011	37	-12	57	16,41
49	094	041	-	-047	025	020	-069	107	011	484**	-	-	-	-022	-080	211	095	069	20	-17	76	14,62
51	349*	-106	-042	-186	124	-094	-020	008	-157	338*	000	-106	-056	052	058	398**	008	106	48**	06	60	17,43
\bar{X}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	51	34	58	
S.D.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	27	12	
# S.D.	3	0	1	1	1	2	1	2	2	12	2	2	1	1	2	5	1	1	15			

^a Decimals omitted
^b Estimate of shrinkage based on Lord-Richelson formula (Scheidt et al., 1977)
 * p < .05
 ** p < .01

Table 7^a
The Best One-, Two-, Three-, Four- and Five- Predictor Models
Using Absence Episodes as the Criterion

Subject #	1	2	3	4	5	R ²	R ²	R ²	R ²	R ²	R ²	R ² -Adj ^b	N
01	V11	V11	V11	V16	V11	V7	V11	V14	V16	V17	28	-20	78
04	V12	V11	V11	V12	V11	V4	V4	V11	V14	V17	40	-16	56
06	V11	V3	V11	V16	V3	V1	V16	V5	V11	V16	42	-40	36
14	V1	V5	V1	V18	V1	V5	V18	V10	V12	V18	65	38	59
18	V1	V1	V4	V12	V4	V1	V12	V7	V11	V12	80	66	71
19	V13	V10	V10	V13	V17	V10	V20	V16	V17	V20	33	-38	52
20	V11	V4	V11	V15	V11	V4	V18	V11	V15	V18	40	-22	56
23	V11	V11	V11	V17	V17	V1	V18	V14	V17	V18	56	29	64
24	V18	V8	V8	V16	V8	V5	V18	V14	V16	V18	16	-49	63
27	V18	V14	V14	V14	V14	V8	V18	V10	V18	V19	11	-47	62
29	V10	V5	V10	V16	V11	V5	V16	V11	V14	V16	39	07	72
30	V11	V4	V11	V19	V4	V4	V20	V5	V11	V14	44	00	66
34	V6	V6	V11	V14	V8	V3	V14	V8	V11	V14	73	03	38
36	V11	V6	V7	V13	V7	V6	V13	V10	V11	V13	61	18	61
37	V11	V11	V8	V11	V8	V1	V11	V4	V8	V11	35	-18	53
38	V11	V11	V17	V18	V17	V5	V20	V5	V18	V19	66	36	55
45	V11	V5	V1	V11	V4	V1	V11	V5	V11	V14	55	-24	40
46	V11	V3	V11	V17	V11	V3	V17	V15	V16	V17	48	07	63
48	V11	V8	V8	V15	V8	V1	V17	V10	V15	V17	28	-42	58
49	V11	V11	V11	V17	V1	V1	V17	V16	V16	V17	19	-24	77
51	V11	V11	V11	V17	V11	V1	V20	V17	V17	V19	42	-16	61
\bar{X}	25	34	39	42	42	42	42	42	42	42	44	23	59
S.D.	15	17	18	18	18	18	18	18	18	18	19	22	11

^a Decimals omitted
^b Shrunken R-Squares based on Darlington (1968) formula (see Schmitt et al., 1977)
* p < .05
** p < .01

Table 8
 Across-Subjects Principal Components Analysis of Absence-Relevant Events

Item	1	2	3	4	5	6	7	h ² _a
V1	-.276	-.093	-.328	.004	.106	-.177	-.177	.27
V2	-.043	-.186	-.038	.144	.391	-.208	.529	.53
V3	-.140	-.433	-.002	.213	.046	.116	-.130	.28
V4	-.001	-.322	-.186	.251	.472	-.091	-.149	.45
V5	-.339	.153	-.009	-.168	.172	.431	.008	.38
V6	.128	.453	.000	.042	.419	-.269	-.036	.47
V7	.215	.445	.058	-.120	.244	-.151	.009	.34
V8	.003	-.248	-.088	-.594	.189	-.194	.117	.51
V10	-.397	-.045	.271	.064	.004	-.318	.016	.34
V11	.329	.000	-.331	.003	-.062	.280	.086	.31
V12	.041	-.110	.031	.170	.102	.253	.442	.31
V13	.171	.001	.155	.101	-.309	-.232	.548	.51
V14	-.250	.127	-.393	-.003	.058	.083	.281	.32
V15	.119	-.140	.429	.054	.389	.172	-.124	.42
V16	.348	.023	.039	-.071	.141	.458	.138	.38
V17	.000	.237	-.096	.648	-.038	.012	-.074	.49
V18	-.395	.261	.112	-.029	.154	.220	.110	.32
V19	.272	-.052	.524	.026	-.011	.058	.017	.36
eigenvalue	2.53	1.63	1.42	1.34	1.17	1.05	1.04	
% variance	14	09	08	07	07	06	05	
cummulative %	14	23	31	38	45	51	56	

^a communalities

Table 9a
Standardized Regression Coefficients from Regressing Desire to be Absent
On Principal Component Scores of Absence-Relevant Events

Subject #	PC1 dol- drums	PC2 poor standing	PC3 home demands	PC4 over staffed	PC5 work demands	PC6 disrupted sleep	PC7 compas- sion	R ²	R ² -ADJ ^b	N
01	-741**	-176	023	-027	090	008	-037	50**	39	78
02	-003	1.376*	-245	-609*	430	-801**	094	44**	27	58
03	-354*	368	-177	-077	166	-188	176	42**	26	63
04	-417*	162	102	094	138	093	-003	45**	28	56
05	-633	-055	-004	066	-013	-018	190	47*	13	31
06	-745**	383*	-085	-271	226	270	294	42*	11	36
07	-248	964	377	-304	1.240	-250	-324	44	-07	24
08	-476*	499	131	-434**	356*	034	235*	69**	59	56
09	-751	-396	-149	337	000	243	-155	29	05	52
10	390	336	897**	-233	-072	-396	724	58**	30	30
11	-594**	670**	-174	-133	-204	059	-694**	60**	49	72
12	-406*	315	072	083	045	-258	-131	39**	18	52
13	-022	-157	253	091	031	-108	-220	09	-29	58
14	-891**	104	-097	-154	617**	400	-282	52**	38	59
15	-387**	118	345**	-406**	102	027	139	74**	65	50
16	-578**	205	242	-207	-028	246	235	39**	16	47
17	-350	012	-317	-090	231	-019	-432*	23	-01	56
18	-561**	035	383**	-127	166	-023	137	52**	41	71
19	-505**	-107	254	-083	186	-159	-082	42**	22	52
20	-707**	113	-138	-301*	447**	-069	-224	45**	28	56
21	-334*	074	-090	-189	-117	-178	089	30	09	57
22	-371	117	-359**	141	-143	243	125	34**	13	56
23	-337	112	204	-028	408*	-325	061	51**	38	63
24	-593**	166	160	-029	042	-124	-006	58**	47	63
25	-899**	-040	198*	031	042	-021	295*	54**	44	79
26	-048	022	162	150	094	-359	-302*	37**	18	60
27	-781**	-073	245*	-042	-247	103	182	55**	42	61
28	-534	038	-098	029	069	-176	129	53**	37	51
29	-1.029**	-586	026	135	-153	054	-035	52**	41	72
30	-679**	-193	080	002	101	-359**	197	55**	43	65
31	-584**	-075	-030	-058	230	-040	071	35**	16	58

Table 9 (continued)

Subject #	PC1 dol- drums	PC2 poor standing	PC3 home demands	PC4 over staffed	PC5 work demands	PC6 disrupted sleep	PC7 compar- ison	R ²	R ² -ADJ ^b	N
32	-426**	-102	-111	061	178	-037	-046	27**	12	80
33	-462	102	374**	-073	004	-257	-257*	52**	38	61
34	-785**	-092	-103	019	046	-051	-026	71**	57	38
35 ^c	--	--	--	--	--	--	--	--	--	--
36	089	585	140	-174	104	-159	-057	50**	24	37
37	-618**	484**	163	-207	-130	-095	-193	68**	57	53
38	-334*	-112	-550**	151	-048	031	-003	52**	36	54
39	-437**	387**	-396**	-282*	146	-101	-065	50**	34	56
40	-659*	-462	-272	242	-171	905*	-204	53**	23	31
41	--	--	--	--	--	--	--	--	--	--
42	-581*	128	246	-328*	016	129	-036	29*	06	53
43	-701**	-178	-177	279	-161	355	-231	36**	18	61
44	-938	-424	206	567*	105	218	189	63**	49	54
45	-018	-348*	-043	667**	222	-527**	625**	55**	34	40
46	-454*	037	104	000	153	-218	-125	52**	39	63
47	-678**	118	287*	-445**	-060	620**	413**	64**	53	56
48	-262	369*	100	-152	269	-254	106	32**	12	58
49	-761**	101	032	-056	108	073	014	58**	49	76
50 ^c	--	--	--	--	--	--	--	--	--	--
51	-686**	-104	427**	-148	166*	-111	100	71**	67	63
52	-548**	032	161	-074	152	221	-082	25**	07	69
53	-258	306	399	-040	-005	-228	444	51	-20	18
54	-195	306*	112	-351**	297*	-168	173	39**	26	78
# SIG	33	8	11	10	6	5	8	45	29	--
x	--	--	--	--	--	--	--	47	32	56
S.D.	--	--	--	--	--	--	--	14	16	14

a Decimals are omitted

b Estimate of Shrinkage based on Lord-Nicholson formula (Schmitt et al., 1977)

c Zero variance in Desire to be Absent Item

* p < .05

** p < .01

Table 10

Standardized Regression Coefficients from Regressing Absence
Episodes On Principal Component Scores of Absence-Relevant Events^a

Subject #	PC1 dol- drums	PC2 poor standing	PC3 home demands	PC4 over staffed	PC5 work demands	PC6 disrupted sleep	PC7 compar- ison	R ²	R ² -ADJ ^b	N
01	262	160	-294	-002	-018	278*	-009	23**	07	78
04	005	-278	-152	-103	-281	299	360**	25	02	56
06	261	205	-035	-119	-270	-122	244	14	-31	36
14	700**	-233	-215	132	051	-303	-097	36**	17	59
18	416**	-292*	-311**	197	-095	-254	000	42**	28	71
19	149	040	-118	114	-204	000	189	20	-06	53
20	186	-078	-524**	002	-066	095	-100	35**	13	56
24	224	127	-206	-028	-024	159	-151	10	-14	63
26	-353	-630**	-333	299	-353*	1.00	-149**	58**	46	60
27	-090	-204	-227	193	-062	021	-076	07	-21	58
29	422*	108	-201	-044	058	513*	015	32**	16	72
30	054	120	-399**	-027	-033	323**	179	32**	14	66
34	240	408*	-204	-087	529*	-138	185	42**	13	38
36	406	233	-375	080	-127	115	081	29	-07	37
37	499*	181	-423*	243	043	183	080	29*	06	53
38	341*	100	-154	511**	-093	-320	-008	45**	27	54
45	312	162	-493**	-256	125	164	-068	41**	14	40
46	788**	946**	-419**	-241	357*	-572**	-084	42**	20	63
48	319	021	-129	064	047	116	-126	14	-11	58
49	138	-045	-220	082	-177	012	190	10	-10	76
51	269*	015	-225	124	-069	332*	-019	27*	06	61
54	647**	247**	331**	-032	143	-518**	300**	79	74	78
# SIG	8	5	8	1	3	6	3	12	4	--
X	--	--	--	--	--	--	--	31	20	58
S.D.	--	--	--	--	--	--	--	17	18	13

^a Decimals omitted

^b Estimate of Shrinkage based on Lord-Nicholson formula (Schmitt et al., 1977)

Table 11

Summary Overview of Results

Correlational Analyses^a

<u>Predominant Correlates Of Desire to be Absent</u>	<u>Predominant Correlates Of Absence Episodes</u>
Item 10 (tired: $\bar{r}=.46$, S.D.=.19)	Item 11 (health: $\bar{r}=-.39$, S.D.=.17)
Item 11 (health: $\bar{r}=-.35$, S.D.=.20)	Item 9 (desire to be absent, $\bar{r}=.24$, S.D.=.19)
Item 5 (personal problems: $\bar{r}=.28$, S.D.=.25)	Item 10 (tired: $\bar{r}=.25$, S.D.=.14)
Item 18 (stress: $\bar{r}=.23$, S.D.=.32)	Item 18 (stress: $\bar{r}=.13$, S.D.=.19)
Item 1 (job satisfaction: $\bar{r}=-.22$, S.D.=.22)	
Item 20 (work interfering with home activities: $\bar{r}=.23$, S.D.=.21)	

Within Subject Regressions

<u>Predominant Predictors_b Of Desire to be Absent</u>	<u>Predominant Predictors_b Of Absence Episodes</u>
Item 10 (tired)	Item 11 (health)
Item 20 (work interfering with home activities)	Item 17 (unit staffing)
Item 11 (health)	Item 1 (job satisfaction)
Item 5 (personal problems)	
Item 18 (stress)	
Item 1 (job satisfaction)	
$\bar{R}^2 = .63$, S.D. = .16	$\bar{R}^2 = .53$, S.D. = .23)
$(\bar{R}^2 - \text{Adj}) = .49$, S.D. = .19)	$(\bar{R}^2 - \text{Adj}) = .37$, S.D. = .29)

Within-Subject Regressions Using RSQUARE Selection Procedure^c

<u>Predominant Predictors_b Of Desire to be Absent</u>	<u>Predictors Of Absence Episodes</u>
Item 10 (tired)	Item 11 (health)
Item 11 (health)	Item 17 (unit staffing)
Item 20 (work interfering with home chores)	Item 18 (stress)
Item 5 (personal problems)	Item 1 (job satisfaction)
Item 18 (stress)	

Table II (continued)

5-predictor model, $\bar{R}^2=.57$, S.D.=.15	5-predictor model, $\bar{R}^2=.44$, S.D.=.19
\bar{R}^2 -Adj=.31, S.D.=.17)	(\bar{R}^2 -Adj=.23, S.D.=.22
Best single predictor Item 10 (tired)	Best single predictor Item 11 (health)
$\bar{R}^2=.38$, S.D.=.13	$\bar{R}^2=.24$, S.D.=.13

Re-Analysis Using Principal Component ScoresWithin-Subject Regressions

<u>Predominant Predictors^b Of Desire to be Absent</u>	<u>Predominant Predictors^b Of Absence Episodes</u>
PC1 (doldrums)	PC1 (doldrums)
PC3 (home demands)	PC3 (home demands)
PC4 (overstaffed)	PC6 (disrupted sleep)
PC2 (poor attendance record)	
PC7 (compassionate leave)	
7-predictor model, $\bar{R}^2=.47$, S.D.=.14 \bar{R}^2 -Adj=.38, S.D.=.16)	7-predictor model, $\bar{R}^2=.31$, S.D.=.17 (\bar{R}^2 -Adj=.22, S.D.=.19)

^aSigns of correlations were changed in some cases to simplify interpretation. Item descriptors represent the positive pole of each scale. Correlations are presented to reflect positively-keyed scoring for all form items and absence episodes.

^bItems are ranked on the basis of their predominance. Predominance is defined by the number of times an item was statistically significant across nurses and the relative strength of the predictor.

^cThe RSQUARE procedure selects the "n-predictor" model which yields the maximum R-Square value.

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