

# Student Burnout as a Function of Personality, Social Support, and Workload

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*Measures of social support (Multidimensional Scale of Perceived Social Support), personality (General Temperament Survey), and workload were related to psychological burnout (Maslach Burnout Inventory) among 149 college students (M = 20.8 yrs.). High levels of burnout were predicted by negative temperament and subjective workload, but actual workload (academic and vocational) had little to do with burnout. Low levels of burnout were predicted by positive temperament, participation in extracurricular activities, and social support, especially from friends.*

The term *burnout* was first introduced by Freudenberger (1974), who defined it as “to fail, to wear out, or become exhausted by making excessive demands on energy, strength, or resources” (p.159). The concept of burnout was further popularized with the development of the Maslach Burnout Inventory (Maslach & Jackson, 1981). Research on burnout originally focused on people in various occupational groups, including human service workers, teachers, nurses, and psychologists. Although several studies of burnout among college residential assistants (RAs) have been conducted (e.g., Hardy & Dodd, 1998), little is known about burnout among college students in general, and that is the focus of the current study.

Maslach and Jackson (1981) defined *burnout* as a syndrome that is composed of three dimensions: emotional exhaustion,

depersonalization, and reduced personal accomplishment. Emotional exhaustion refers to demands and stressors that cause people to feel overwhelmed and unable to give of themselves at a psychological level. Depersonalization is the development of negative and cynical attitudes that can create a callous view of others, perceiving them as deserving of their troubles. Reduced sense of personal accomplishment is the tendency to view oneself negatively and to be dissatisfied with accomplishments. Burnout is related to various personal dysfunctions, such as physical exhaustion, insomnia, and increased drug and alcohol use. Some symptoms of burnout include lower motivation and satisfaction with work, increased risk of health impairments, social conflicts, and lower efficiency (Maslach, Jackson, & Leiter, 1997). Many college students who seek counseling may be experiencing burnout or several of its consequences. Thus, identifying factors that affect burnout is important in order to improve treatment and prevention models for student burnout.

Job stress is commonly attributed to external factors related to the work environment, such as work demands, working conditions, and poor supervision. Maslach and Jackson (1981) emphasized the psychological nature of the burnout syndrome rather than the physical work environment. Subsequent research has substantiated their theory, by demonstrating the importance of internal (e.g., personality) and interpersonal

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(e.g., social support) factors, as well as external factors (e.g., workload).

Personality characteristics have generally been related to burnout, but research results depend upon which specific traits are correlated with which of the dimensions of burnout. Some researchers have found extroversion to be correlated only with emotional exhaustion and reduced sense of personal accomplishment (Eastburg, Williamson, Gorsuch, & Ridley, 1994; Mills & Huebner, 1998), whereas others have reported extroversion to be correlated only with depersonalization and reduced personal accomplishment (Huebner & Mills, 1994; Zellars, Perrewe, & Hochwarter, 2000). The relation of neuroticism to burnout is also varied, with Mills and Huebner reporting significant correlations with all three dimensions of burnout, but Zellars et al. (2000) reporting a significant correlation only with emotional exhaustion. Although this literature that relates personality to burnout is promising, additional research is necessary to further understand this important connection.

Social support has also been related to burnout (Greenglass, Fiksenbaum, & Burke, 1994; Kahill, 1986; Koniarek & Dudek, 1996), with greater support generally related to lower levels of burnout. Like the research on personality, however, this relationship varies considerably, depending upon the type of social support. Several studies of burnout in the workplace have shown that social support from supervisors is related to lower levels of burnout, whereas other sources of social support (e.g., from family, friends, and coworkers) are less strongly related to increased burnout (Huebner, 1994; Ross, Altmaier, & Russell, 1989; Russell, Altmaier, & Van Velzen, 1987).

Most researchers who have examined

the relationship between workload and burnout have reported a positive relationship, with greater workload associated with greater burnout. Some studies have found this relationship to be true only for emotional exhaustion (Male & May, 1997, 1998), but Greenglass, Burke, and Fiksenbaum (2001) found that workload correlated to all three dimensions of burnout. Inadequate measures of workload as well as incomplete models relating workload to burnout may have hampered the investigation of how these two variables interrelate (Koeske & Koeske, 1989). It is reasonable to assume that objective workload contributes causally to burnout, but many workers seem to cope successfully with heavy workloads, whereas others do not. Perhaps it is the subjective response to workload, rather than the workload itself, that contributes most to burnout. Separate measures of objective workload and subjective workload need to be developed and differentially explored as predictors of burnout.

The vast majority of research on burnout has been conducted on occupational populations, including: salespeople (Sand & Miyazaki, 2000); teachers (Greenglass et al., 1994; Russell et al., 1987), nurses (Eastburg et al., 1994; Koniarek & Dudek, 1996; Zellars et al., 2000), human service workers (Wade, Cooley, & Savicki, 1986), counselors (Ross et al., 1989), psychologists (Kahill, 1986), and school psychologists (Huebner & Mills, 1994; Mills & Huebner, 1998; Sandoval, 1993). Research on burnout among college students has been restricted primarily to those who are in supervisory and advisory roles, namely RAs (Benedict & Mondloch, 1989; Fuehrer & McGonagle, 1988; Hardy & Dodd, 1998; Hetherington, Oliver, & Phelps, 1989). The researchers in these studies have focused almost exclu-

sively on individual (e.g., gender and experience level) and situational (e.g., floor assignment) factors, and little is known about how intrapersonal (e.g., personality) and interpersonal (e.g., social support) factors are related to burnout among students. It is also risky to generalize findings from RAs to the general college population, because students who become RAs may be a very select group. For example, Hetherington et al. (1989) reported lower scores on sense of personal accomplishment (i.e., greater burnout) among general students than among RAs.

On the other hand, there has been a substantial amount of research on stress among general college students. Stress has been shown to be correlated with college students' health behaviors (Weidner, Kohlmann, Dotzauer, & Burns, 1996), anxiety concerning exams (Abouserie, 1994; Everson, Tobias, Hartman, & Gourgey, 1993; Sloboda, 1990), self-esteem (Abouserie; Newby-Fraser & Schlebusch, 1997), and coping strategies that students use (Dwyer & Cummings, 2001). To the extent that stress is an important component of burnout (Maslach & Jackson, 1981), this research is relevant to the development of a model of burnout among college students. Between classes, exams, employment, and extra-curricular activities, students are likely to experience high levels of stress, but do they experience burnout? Much research is needed to determine the prevalence of burnout, to identify important intrapersonal and interpersonal factors that influence burnout, and to develop effective interventions to prevent and reduce burnout in college students.

For the current research, we had two important goals related to the replication and extension of prior research on burnout: First,

we explored the relations of personality and social support to the three components of burnout. Second, we examined the role of workload, as measured both objectively and subjectively.

## METHOD

### Participants

Participants were 149 undergraduate students (103 women and 46 men) enrolled in a mid-sized, private university in the Midwest. Consistent with the enrollment of the university, the ethnicity of the sample was approximately 62% Caucasian, 20% Asian American, 6% African American, and 12% "other." The university, located in an urban setting, has highly selective admissions criteria, and its students are generally considered to be very motivated academically. Participants were recruited through the psychology department's research participant pool.

The participant pool consists of all students enrolled in any of approximately eight psychology courses, including introductory psychology, introductory statistics, developmental psychology, and abnormal psychology, all courses which count toward the general education requirements at the university. Students who participate in research or alternative options receive extra credit in their enrolled courses. It is estimated that 90% or more of all students in the university take at least one of these psychology courses, and about 90% of those choose to participate in research. By extrapolation, it is estimated that at least 80% of all university students participate in this research pool, suggesting that research samples drawn from the pool are likely to be highly representative of the undergraduate student population at large. Informal studies

of the participation pool reveal that it closely resembles in demographics the university's undergraduate student body, with one notable exception. Women are more highly represented in the participant pool (about 70%) than in the student body (50%), reflecting the fact that women enroll in psychology courses at a higher rate than men. The proportion of women in the current sample (69%) closely reflects the proportion in the participation pool.

Because the focus of the study was to examine burnout in college students who had fully adapted to the university setting, only students in their junior ( $n = 83$ ) or senior year ( $n = 66$ ) were included in the study ( $M = 20.8$  yrs.,  $SD = 1.4$ ). Approximately half (54%) of the sample was employed, with weekly hours of work ranging from 2 to 27 ( $M = 10.4$  hrs.,  $SD = 5.8$ ). None of the participants worked full-time. Data were collected during the last 4 weeks ( $n = 106$ ) of Fall semester and the first 4 weeks of the subsequent Spring semester ( $n = 43$ ).

## Procedure and Measures

The research instrument, which required about 30 minutes to complete, was administered in small groups of 4 to 12 participants. Privacy and anonymity of participants were carefully protected. In addition to basic biographical items, the questionnaire included the following measures.

The Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1981) was administered to measure subjects' level of burnout. The MBI consists of 22 questions that are divided into three subscales: Emotional Exhaustion (EE), Depersonalization (DP), and Personal Accomplishment (PA). EE is measured by nine items (e.g., "I feel emotionally drained from my work"), DP is measured by five items (e.g., "I feel I treat

some friends as if they were impersonal objects"), and PA is measured by eight items (e.g., "I feel I'm positively influencing other people's lives through my work"). Each item is rated on a 7-point Likert-type scale ranging from 0 (*never*) to 6 (*every day*). Possible score ranges are 0 to 54 for EE, 0 to 30 for DP, and 0 to 48 for PA. High burnout is reflected in high scores on EE and DP and in low scores on PA. The MBI appears to be sufficiently reliable, with reported alpha coefficients of .87 for EE, .77 for DP, and .75 for PA (Maslach & Jackson). To make the survey more appropriate for college students, item wording was modified slightly (e.g., from "job" to "school" and "coworkers" to "friends").

The General Temperament Survey (GTS) (Clark & Watson, 1990), a component of the more comprehensive personality inventory, Schedule for Nonadaptive and Adaptive Personality (SNAP) (Clark, 1993), was chosen for use in the current study because it is relatively brief and has well-established reliability and validity (Clark). The GTS is a 90-item, true-false questionnaire that yields measures of Negative Temperament (NT), Positive Temperament (PT), and Disinhibition (DIS), dimensions that correspond closely to neuroticism, extroversion, and lack of conscientiousness, respectively (Watson, Clark, & Harkness, 1994). More specifically, NT (28 items; e.g., "I often feel nervous and stressed") measures negative mood and self-concept; PT (27 items; e.g., "People would describe me as a pretty enthusiastic person") measures positive emotionality; and DIS (35 items; e.g., "I'll take almost any excuse to goof off instead of work") measures lack of behavioral control. Scoring is based on the number of responses in the scored direction, with possible score ranges of 0 to 28 for NT, 0 to

27 for PT, and 0 to 35 for DIS. The GTS is considered to be highly reliable, with reported alpha coefficients of .91 for NT, .88 for PT, and .82 for DIS for college samples (Clark).

The Multidimensional Scale of Perceived Social Support (MSPSS) (Zimet, Dahlem, Zimet, & Farley, 1988) was used to assess self-reported amounts of social support. The MSPSS is a 12-item questionnaire containing three subscales measuring perceived social support from Friends (e.g., "My friends really try to help me"), Family (e.g., "I can talk about my problems with my family"), and a Significant Other (e.g., "There is a special person in my life who cares about my feelings"). Items are scored on a 7-point Likert-type scale, ranging from 1 (*very strongly disagree*) to 7 (*very strongly agree*) for each item. Each subscale consists of four items and has a possible score range of 4 to 28. High scores reflect high levels of perceived social support. The MSPSS appears to have very good reliability: In a study of college students, Dahlem, Zimet, and Walker (1991) reported alpha coefficients of .90, .94, and .95, respectively, for the subscales of Friends, Family, and Significant Other.

Subjective Workload was measured with four items: "I think I could have handled 2 to 3 more units this semester," "I wish that I had enrolled in 2 to 3 fewer units this semester," "I think I could have handled 1 to 2 more extracurricular activities," and "I wish that I were involved in 1 to 2 fewer extracurricular activities". To maintain consistency with the Likert-scales used in scoring the MBI and MSPSS, a 7-point Likert-type scale was also used to measure level of agreement from 1 (*very strongly disagree*) to 7 (*very strongly agree*) to the items measuring Subject Workload. After

appropriate reverse scoring, the items were summed, resulting in a possible score of 4 to 28, with higher scores reflective of greater workload.

Objective Workload was measured by three items: number of credit hours enrolled, number of hours spent participating in extracurricular activities each week, and number of hours per week spent in paid employment (with unemployed participants coded as 0).

## RESULTS

Missing data were rare, occurring for less than 0.1% of the data set, and they were replaced by the group mean for each item. Cronbach's coefficient alpha was used to estimate the reliability of each composite variable (see Table 1). Reliability coefficient alphas were all above .70, except for the Subjective Workload (.56). Although burnout is a global term, the three subscales of the MBI tap separate components of burnout, and accordingly, the intercorrelations between these subscales were only moderate: for EE and DP,  $r = .49$ ; for EE and PA,  $r = -.36$ ; and for DP and EE,  $r = -.29$ . Therefore, separate multiple regression procedures were used to predict each burnout subscale. Specifically, forward stepwise-regression was used, with alpha levels set at .05 for inclusion and .10 for exclusion.

### Level of Burnout

Descriptive data for the current sample appear in Table 1. Relative to overall norms for the MBI (Maslach & Jackson, 1981), the current sample reported moderate-to-high levels of burnout on the dimensions of EE and PA but low-to-moderate scores on DP. Compared to descriptive data reported for RAs by others (Hardy & Dodd, 1998;

TABLE 1.  
Descriptive Data and Coefficient Alphas for Dependent Variables and Predictors

	Number of items	Possible score range	<i>M</i>	<i>SD</i>	$\alpha$
<i>Dependent Variables</i>					
Emotion Exhaustion	9	0-54	22.6	8.9	.86
Depersonalization	5	0-30	7.5	4.9	.71
Personal Accomplishment	8	0-48	33.4	6.8	.77
<i>Predictors</i>					
Social Support-Friends	4	4-28	23.2	4.0	.93
Social Support-Family	4	4-28	21.9	4.7	.87
Social Support-Significant Other	4	4-28	23.7	4.8	.96
Subjective Workload	4	4-28	15.0	4.1	.56
Positive Temperament	27	0-27	18.0	5.8	.88
Negative Temperament	28	0-28	13.9	6.9	.90
Disinhibition	35	0-35	12.1	6.3	.85

Hetherington et al., 1989), the current sample had slightly but nonsignificantly lower levels of burnout on all three subscales.

### Prediction of Burnout

Detailed results of the regression analyses appear in Table 2. For the analysis using EE as the dependent variable, total  $R^2$  was .41,  $F(3, 146) = 33.44$ ,  $p < .001$ . Higher scores on EE were associated with higher levels of negative temperament, higher subjective workload, and a greater number of work hours.

For DP, total  $R^2$  was .26,  $F(3, 146) = 16.57$ ,  $p < .001$ . Higher scores on DP were associated with lower levels of social support from friends, higher levels of negative temperament, and higher subjective workload.

For PA, total  $R^2$  was .53,  $F(4, 146) = 40.72$ ,  $p < .001$ . Greater burnout (lower PA

scores) was associated with lower levels of social support from friends, lower levels of positive temperament, higher levels of negative temperament, and fewer hours spent in extracurricular activities.

### Secondary Analyses

The multiple regression procedures used in the primary analyses capitalize on the best predictors, at the expense of weaker predictors. To investigate the strength of these weaker predictors, outside of the realm of the regression analyses, we inspected the individual Pearson  $r$ s (criterion of  $p = .05$ , two-tailed) for all predictors that did not enter the regression analyses. For example, all three measures of social support were negatively correlated with all three measures of burnout at statistically significant levels, with correlations ranging from .18 to .54, despite the fact that only support from

friends entered into the multiple regression equations at statistically significant levels. In each case, greater social support was associated with lower burnout scores. (For conciseness, negative signs have been dropped from the *rs* in this paragraph, and the direction of the relation is indicated in text.) Similarly, subjective workload was negatively correlated with all three measures (*rs* from .24 to .43). Extracurricular activity was negatively correlated with EE (.17) and positively correlated with PA (.35). Further exploration showed that the correlation between extracurricular activity and PA was especially strong among men ( $r = .51$ ) and only moderate among women ( $r = .27$ ). On the other hand, academic hours enrolled, whether a participant worked, or number of work hours all failed to correlate significantly with any of the burnout measures or with any of the measures of support.

In addition, we explored the possible effects of sex of participants, year in school (junior vs. senior), and time of semester (beginning vs. end) on burnout, using three-way ANOVAs. For EE and DP, we found no significant main effects or interactions. For PA, those participating late in the Fall semester had lower PA scores ( $M = 32.7$ ,  $SD = 7.0$ ), and thus greater burnout, than those participating at the beginning of the Spring semester ( $M = 35.2$ ,  $SD = 6.1$ ),  $F(1, 141) = 5.40$ ,  $p = .02$ ,  $\eta^2 = .19$ ). None of the remaining main effects or interactions was significant. Follow-up analyses revealed that those who participated at the end of Fall semester were less conscientious (i.e., scored higher on DIS) than were those participating at the beginning of Spring semester,  $r = .20$ ,  $p = .02$ , but they did not differ on positive or negative temperament.

Racial differences in burnout scores were also explored. We used one-way

ANOVA, because the very small group sizes for African Americans ( $n = 9$ ) and Others ( $n = 13$ ) did not allow for including race in the factorial analyses reported above. No statistically significant differences were found for EE and DP. For PA, however, the racial groups differed significantly,

TABLE 2.  
Stepwise Regression Analysis (Beta Values) of Burnout Subscales

	Burnout Subscales <sup>a</sup>		
	EE	DP	RPA
<i>Personality: GTS</i>			
Positive Temperament			-.34
Negative Temperament	.47	.25	.20
Disinhibition			
<i>Social Support: MSPSS</i>			
Friends		-.32	-.36
Family			
Significant Other			
<i>Subjective Workload</i>	.33	.15	
<i>Objective Workload</i>			
Academic hours enrolled			
Work hours per week	.13		
<i>Extracurricular hours</i>			-.19
Total $R^2$ $\square$ $\square$	.41*	.26*	.53*

Note. Values in table are standardized beta coefficients. Variables with no beta values did not meet criterion for inclusion ( $p < .05$ ) or exclusion ( $p < .10$ ). GTS = General Temperament Scale. MSPSS = Multidimensional Scale of Perceived Social Support.

<sup>a</sup> EE = Emotional Exhaustion; DP = Depersonalization; RPA = Reduced Personal Accomplishment.

\*  $p < .001$ .

$F(3, 139) = 6.02, p = .001, \eta^2 = .34$ . Post hoc analyses (*HSD*,  $p = .05$ ) revealed that PA scores for African Americans ( $M = 38.1, SD = 8.2$ ) were higher (thus lower burnout) than for all other groups, whereas scores for Asian Americans ( $M = 29.5, SD = 7.2$ ) were lower than for all other groups. Scores for Caucasians ( $M = 34.3, SD = 5.6$ ) and Others ( $M = 34.8, SD = 9.0$ ) were intermediate.

Finally, the relations of cumulative GPA, a widely used global measure of academic achievement, to burnout scores and the major predictors were explored. GPA was significantly correlated with EE ( $r = -.25, p = .002$ ) but not with DP ( $-.13$ ) or PA ( $.10$ ). GPA was also not correlated with academic extracurricular activity, whether participants worked, hours of work, subjective workload, or social support (all  $r$ s  $< .10$ ).

## DISCUSSION

This study was designed to evaluate the relative influences of intrapersonal factors, interpersonal factors, and workload on psychological burnout. Results suggest that personality, especially negative temperament, may predispose college students to burnout, whereas social support, especially from friends, may provide an important buffer against burnout. Extracurricular activities also appear to be important to a student's sense of accomplishment, thus additionally counteracting burnout. Although the subjective feeling of being overworked predicted emotional exhaustion and depersonalization, objective measures of workload, including academic load, whether a student was employed, and number of hours worked, were not consistently related to burnout.

Personality, as measured by the GTS (Clark & Watson, 1990), was the strongest

predictor of burnout. Negative temperament (roughly, neuroticism) especially was related to all three aspects of burnout. According to Clark (1993), negative temperament reflects feelings of chronic stress and nervousness, the experience of strong negative emotions, and worrying, all characteristics that can impair concentration and disrupt sleep. Obviously, such a temperament might contribute directly to emotional exhaustion and, to a lesser degree, to depersonalization and a reduced sense of personal accomplishment.

Positive temperament was positively correlated with personal accomplishment, replicating previous findings (Mills & Huebner, 1998; Zellars et al., 2000). Positive traits such as optimism and energy may act as a buffer to the stressors and frustration that can lead to dissatisfaction with one's personal accomplishments. This interpretation is supported by the simple Pearson correlations that revealed PT to be negatively related to EE and DP.

On the other hand, it is interesting that disinhibition (impulsivity, lack of conscientiousness, Clark, 1993) failed to predict any aspect of burnout. This finding appears to contradict those of Huebner and Mills (1994), who found a positive relationship between conscientiousness and personal accomplishment, and of Mills and Huebner (1998), who found a negative relationship between conscientiousness and emotional exhaustion. It is important to note that the studies of Huebner and Mills measured conscientiousness with the NEO-Five Factor Inventory (NEO-FFI) (Costa & McRae, 1985). Although Clark (1993) reported a correlation of  $-.51$  between the GTS DIS scale and the NEO-FFI Conscientiousness scale, the use of these different measures may have caused the contradiction in

findings. Alternatively, population differences in these studies may better explain the contradictory findings, especially because the studies of Huebner and Mills were based on samples of professional school psychologists. In an undergraduate academic setting, particularly a highly competitive atmosphere like the one from which the current sample was drawn, highly conscientious students (low scorers on DIS) may place very demanding expectations upon themselves and may suffer burnout as a consequence, thus possibly counteracting the positive elements of conscientiousness. Given the importance of personality factors in burnout, much additional research is needed.

It is clear from these findings that social support, especially from friends, is closely related to lower levels of burnout. Specifically, higher social support from friends was associated with lower levels of depersonalization and higher levels of personal accomplishment, a replication of the findings of Koniarek and Dudek (1996). In fact, all three forms of support (friends, family, and significant other) appear to be intercorrelated, both in the current study and as reported by Zimet et al. (1988). Further analysis of first-order correlations revealed that all three measures of social support were significantly related in a positive manner to all three measures of burnout: Greater social support was associated with less emotional exhaustion, less depersonalization, and a greater sense of personal accomplishment.

It is interesting to note that subjective workload (i.e., feeling that one's academic and extracurricular load is too heavy) was more closely related to burnout than was objective workload (actual load of academics, extracurricular activities, and employment). Subjective workload was

significantly related to all three aspects of burnout, whereas work hours was related only to emotional exhaustion and only weakly so. Furthermore, actual academic load did not predict any of the measures of burnout. Clearly, students who were not experiencing burnout felt as though they were over committed, even though they were enrolled in similar academic loads and were participating in extracurricular activities less frequently than did students who were not experiencing burnout. This finding underscores the psychological nature of burnout and the subjective experience of work overload.

A positive relation between extracurricular activities and a sense of personal accomplishment was found: The greater the hours spent in extracurricular activities, the greater the sense of personal accomplishment. This clearly suggests that extracurricular involvement, rather than leading to emotional exhaustion, promotes feelings of achievement and self-worth, thus playing a protective role against one aspect of burnout. The fact that this association was very strong for men (and only moderately so for women) suggests that high involvement in extracurricular activities may be especially important for college men.

Secondary analysis showed that GPA was negatively related to EE but not significantly related to DP or PA. The correlational design of this study does not permit any conclusion about causation, but this finding suggests that exhaustion may contribute to lower academic performance. Alternatively, students who are performing below their own academic expectations, perhaps despite considerable academic efforts, may be more likely to experience exhaustion. In either event, this relationship between exhaustion and academic per-

formance is potentially of substantial importance to students, faculty, and college administration.

The discovery of racial differences in one aspect of burnout (reduced personal accomplishment) is an intriguing one that warrants further research. African Americans reported the greatest PA scores, whereas Asian Americans reported the lowest scores (and thus greater burnout). Perhaps racial groups differ in either their expectations for accomplishment or their interpretation of academic performance. Because this finding is based on very small group sizes, it must be considered very preliminary, but it calls for more extensive study by future researchers.

Perhaps surprisingly, emotional exhaustion and depersonalization were no greater among the students who participated at the end of a semester versus those who participated at the start of the following semester. This contradicts the common conception that burnout is greatest at the end of a semester. Again however, the correlational nature of this study prohibits any firm conclusions. On the other hand, those who participated at the beginning of a semester scored higher on sense of accomplishment and reported greater conscientiousness than did those participating at the semester's end. Participants were free to participate at any point during the semester, and it seems likely that there are important personality differences between students who pursue research participation at the very beginning of a semester versus those who procrastinate. This interpretation is supported by the research of Zelenski and colleagues (Aviv, Zelenski, Rallo, & Larsen, 2002; Zelenski, Rusting, & Larsen, in press), and it has important methodological ramifications for researchers who use university participant pools.

## Future Research

As with all research, the current study has limitations that present opportunities for future researchers. The current study was conducted at a highly competitive, private, primarily liberal arts college. The relations of personality, social support, and workload to burnout may be very different in other academic settings, including less demanding undergraduate settings and graduate and professional schools. Furthermore, the data were collected from only third- and fourth-year undergraduate students, so the findings may not apply to first- and second-year college students or to high school students.

It seems clear from the findings that college students, at least the population sampled, experience substantial levels of burnout. The current study is one of the first explorations of burnout among college students, and there is a great deal more to learn. The consistent association between social support and burnout is an interesting finding that warrants further study. Does burnout produce feelings of social isolation and perceptions of inadequate social support, or does social support directly moderate burnout? Intervention studies, or at least correlational studies with longitudinal designs (e.g., Wade et al., 1986), are needed to address the important question of whether increased social support can actually reduce or prevent burnout.

Further research is also needed to better understand the relation between personality and burnout. The GTS is a reliable and easily administered measure that has potentially great utility as both a research and a diagnostic instrument. There are, however, other more widely used measures of personality. Future researchers should not only replicate these findings with the GTS but also extend them to other measures of

personality.

We found that students who believe they are over involved (high subjective workload) experience greater burnout, but this is hardly surprising. Workload and burnout were measured simultaneously, and undoubtedly most of the participants who experienced high levels of burnout felt, perhaps after the fact, that they were over committed. Longitudinal research is important to track burnout levels, as well as subjective and objective workload, throughout the semester and even from semester to semester.

Do students who experience burnout work in less productive or less efficient ways than students who do not experience burnout? Similarly, do burned out students recreate in ways that contribute to stress or detract from their work activities? Students who experience burnout may have inefficient methods of work and play that place them at a disadvantage academically, socially, and psychologically. Much can be learned by systematically collecting behavioral measures of time management, including study patterns, amount and kinds of recreation, and employment activities.

Would providing students with detailed information about burnout help them to avoid burnout out at later points? Studying the effects of providing information on burnout and teaching time management strategies during orientation for first-year students could prove to be very valuable. In a similar vein, the importance of social support could be strongly emphasized to parents, faculty and peer advisers, and student support personnel, and the effects of such an intervention on burnout could be measured.

### **Implications for College Staff**

Because we employed a correlational design

in the current study, caution must be taken to avoid strictly causal interpretations of the results. The results are, however, at least consistent with causal influences of personality, social support, and subjective workload on burnout. It is also important to reemphasize that the current study employed a nonrandom sample drawn from a single college campus, and further studies are needed before broadscale recommendations can be made for staff intervention. Nonetheless, our findings can provide several ideas for consideration for college counselors, RAs, academic advisors, and support staff.

When counselors or advisors are faced with a student who appears to be suffering from burnout, it is important to recognize that the student may be experiencing feelings of depersonalization and reduced sense of accomplishment, in addition to emotional exhaustion. A commonsense prescription might be to suggest that the student "lighten the load" by dropping a course, cutting back on extracurricular activities, spending less time socializing with friends, or reducing hours of employment. The results of this study suggest that social support is a stronger predictor of burnout than is workload, so such advice may actually be very counterproductive. Reducing extracurricular activities, or perhaps even hours of employment, may reduce the student's level of interaction with supportive friends and thus exacerbate burnout. Similarly, dropping a course might be experienced as failure by some students and thus contribute to a sense of reduced personal accomplishment. A more effective approach might be a thorough analysis of the student's weekly activity schedule and a focus on effective time management strategies. Efforts should be made to promote or maintain important social relationships

rather than to reduce extracurricular activities. Counselors involved in long-term interventions with students should address personality issues that might be directly related to burnout.

### What can friends or family members do to help someone who experiencing burnout?

Many college students may view burnout as merely an “occupational hazard” that does not warrant professional intervention or even social support. It may be possible to train friends and parents to be alert for signs of student burnout and to respond effectively. Orientation sessions and information for parents, particularly parents of incoming first-year students, can address burnout and related methods of coping. It seems reasonable to suggest to parents that they advise their students to balance reasonable academic and employment schedules with meaningful extracurricular activities rather than assuming a strictly “academics first” stance. Similarly, students themselves, especially those who may become involved in peer support activities, should be educated about the components of burnout and possible coping strategies.

## CONCLUSION

The current study demonstrates the impor-

tance of personality as a correlate of burnout and also the value of social support, especially from friends. It also appears to be the subjective experience of overload, rather than actual objective workload, that contributes to burnout. Extracurricular activities, rather than draining energy from students, might actually be associated with less burnout.

Considerably more research among college students is needed to understand how daily activities and time management skills may be related to burnout. Greatly needed are investigations of the effects of including information about burnout in orientation programs for students and parents and in training programs for peer and professional counselors. By gaining a greater understanding of predictors of burnout in college students and effective means for providing social support to students experiencing burnout, student development personnel can create programs that reduce burnout and promote greater academic and personal fulfillment for students.

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