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LETTER TO THE EDITOR

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WORKSITE INTERVENTIONS REDUCE STRESS

AMONG HIGH SCHOOL TEACHERS AND STAFF

Dear Editor,

Stress among employees working in schools and educational settings is particularly high (Pithers, 1995; Yagil, 1998). Proctor and Alexander (1992), for example, found that when asked "how stressful do you find teaching?", 67% rated teaching as considerably or extremely stressful, 32% rated it as slightly stressful, and just 2% rated it not at all stressful. High stress among teachers has many negative consequences, including higher than average levels of anxiety and mental depression (Beer & Beer, 1992; Travers & Cooper, 1994; Schonfeld, 1990) and a desire to quit the profession and to use drugs (Watts & Short, 1990). Few studies, however, have tested the impact of interventions to reduce stress (Pithers, 1995). A review of these studies concluded that workshops can be effective in ameliorating stress and burnout among teachers (Seidman & Zager, 1992).

Among health care providers, there is a growing recognition of the role of work stress on employee health. Some health care providers are starting to join forces with employers to develop programs and deliver interventions that can help reduce stress and improve the health of employees (Bergmark et. al., 1996). We conducted a study to empirically test the impact of a year-long educational intervention program designed to reduce the stress of secondary teachers and school staff. In conjunction with their health plan, health promotion services were provided at the work-site for a public inner city high school. Three schools with similar student and staff characteristics participated voluntarily in the study. One school received monthly interventions and two other schools in the same city did not receive any interventions and served as comparison or control sites. Survey data were collected from staff at all three schools at three time points during the 1997-98 school year.

The baseline survey in the fall of 1997 included 105 employees (out of about 115 possible) from the intervention school and 103 employees (out of about 200 possible) from two control schools. At baseline, the total sample was characterized by a 2:1 female-to-male ratio, an average age of 43 years (range = 20 to 75), and mostly teachers (68%) with some staff (21%) and "other" job types (11%). The Time 2 follow-up survey in the winter of 1998 included 60 employees from the intervention school and 56 employees from the two control schools. The Time 3 follow-up survey in the spring of 1998 included 40 employees from the intervention school and 42 employees from the control sites.

Three kinds of interventions were featured during the nine-month period of the study. Educational trainings were delivered at the worksite in a group format and generally lasted about 45 minutes. The four training topics included Healthy Lifestyles, Stress Management Parts 1 and 2, and Depression in the Workplace. On-site workshops were also designed to build stress-management skills. Generally lasting about 10 to 20 minutes, the skills workshop topics included Humor and Stress, Breathing Exercises, Back and Neck Exercises, and Relaxation and Pressure Points. The trainings and workshops were presented during regularly scheduled staff meetings before school or part of all-day "release" days. Professional trainers delivered these interventions. Personal resources also included a variety of tools and materials designed for individual use in reducing stress. The resources included a full-length book with detailed information and guidelines for administering self-care for many common health problems (The Healthy Mind/Healthy Body by Sobel & Ornstein, 1996), stress dots (temporary stickers placed on skin that change colors to indicate thermal conductivity/stress arousal levels), a hand-held squeeze toy (for relief of tensions), and a bulletin board of health information.

The school system's health plan and employee assistance program sponsored all of the interventions. The principal and other administrators at the school emphasized that stress reduction for faculty and staff was an important goal and that it should be addressed in a variety of ways. The involvement of school staff (i.e., the principal, school nurse, and a staff advisory committee) also was instrumental in the development and maintenance of the intervention program.

Comparison of the intervention and control schools at baseline using statistical tests found no differences in demographic factors or in stress level. Based on 195 respondents, there was a wide range in the level of overall stress reported at these schools at baseline: "very low" = 4%; "low" = 17%; "moderate" = 45%; "high" = 27%; and "very high" = 7%. Stress was not associated with age, how many years the person had worked in the school system, or job type. However, female employees did report slightly higher stress, on average, than males.

A single-item measure of stress was used at all three time points: "What is your overall level of stress?" with response options: 1 = "very low," 2 = "low," 3 = "medium," 4 = "high," and 5 = "very high." Results of a repeated-measures analysis of variance test found that the intervention school had a significant ($p < .10$) decline in stress from Time 1 to Time 2 to Time 3 (means of 3.27, 3.09, 2.82, respectively). In contrast, the control group did not change significantly in stress level over the year (means of 3.30, 3.37, 3.30).

In summary, the finding revealed that the majority of teachers were stressed, with more than a third experiencing a high level of stress. The delivery of multiple, brief, educational interventions had a small but positive impact on reducing stress. The program featured multiple interventions that were of short duration and that focused largely on an individual employee's ability to understand and cope with stress factors. These kinds of efforts by management and staff in this study are consistent with recent recommendations for effective school-site health promotion programs (Allegrante, 1998). Our study focused on individual level factors to ease stress reactions. Even

greater reductions in employee stress could possibly come from use of interventions geared toward changing the organizational or system level factors that seem to cause much of the stress (Heaney & Ryn, 1990; Orioli, 1996).

Joni Lapp and Mark Attridge

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