

DISPATCHER STRESS

AND

JOB SATISFACTION

by

Tod W. Burke, Ph.D.

Tod W. Burke is an assistant professor at the North Carolina Wesleyan College, Rocky Mount, North Carolina. Dr. Burke is a former Maryland police officer and his major research interests include dispatcher stress, Asian gangs, armed carjackings, profiling serial killers and bullet ricochet. He has been published in the Journal of Police Science and Administration, Journal of Forensic Sciences, Police Studies, as well as several other journals.

143957

U.S. Department of Justice
National Institute of Justice

This document has been reproduced exactly as received from the person or organization originating it. Points of view or opinions stated in this document are those of the authors and do not necessarily represent the official position or policies of the National Institute of Justice.

Permission to reproduce this copyrighted material has been granted by

Tod W. Burke, Ph.D.

to the National Criminal Justice Reference Service (NCJRS).

Further reproduction outside of the NCJRS system requires permission of the copyright owner.

INTRODUCTION

For years, the law enforcement community has devoted particular attention to the phenomenon of "police" stress. While many researchers strived to identify the stressors experienced by police officers (Kroes, Margolis, and Hurrell, 1974; Medows, 1981; Stratton, 1984; Territo and Vetter, 1981), very little attention has been given to the stress experienced by dispatchers. Therefore, it is the purpose of this research to examine the stressors of dispatchers with a specific focus upon job satisfaction.

Definition of Stress

The word "stress" is derived from Latin and was used in the English language as early as the 17th century to mean "hardships, straits, adversity or affliction" (cited in Hinkle, 1977). Since that time many concepts, models and definitions of stress have emerged (Eisdorfer and Wilkie, 1978). Perhaps the most widely recognized definition of stress is the one developed by Hans Selye (1982). Selye's basic biological model contends that stress is "the nonspecific response of the body to any demand made upon it" (Selye, 1974). The term "nonspecific" (or common) was used because many and very different stimuli can trigger a stress reaction (Landy, 1987). According to Barrett, (1985:36)

"... Depending upon one's perspective, stress may be a response or a stimuli. It may be the result of major changes in life events, an accumulation of daily hassles or uplifts, it may be seen as the interactions of an individual's abilities within his or her social context or conceived of in terms of an individual's response to the work place." For the purpose of this research, the definition of stress developed by Selye (1974) will be used.

Role of the Dispatcher

The role of the dispatcher is often misunderstood by administrators, officers, citizens, and even among fellow dispatchers. Doerner (1987:257) states that "police dispatchers form the 'hub' of departmental activity. They communicate information to street units, direct patrol officers to answer calls for service, and coordinate response activities." Dispatchers must process a complex array of information continuously while making rapid judgments and responses to that information (Ksionzky and Mehrabian, 1986). In a matter of seconds, the dispatcher must decipher non-emergency calls with crisis calls for service. "With significant time pressure, the dispatcher... is required to direct the activities of multiple field units; receive, assimilate, and dispatch information from a variety of sources; and effectively communicate with officers and citizens" (Sewell and Crew, 1984:9).

Stress and the Dispatcher

Although job related stressors (those factors which cause stress) have been noted in various occupations (French, Rogers and Cobb, 1974; Kahn, 1970; McGrath, 1970; Revicki and May, 1985), the stressors experienced by air-traffic controllers (ATC) appear to parallel those of the dispatcher (Hurst and Rose, 1978; Sewell and Crew, 1984). As with dispatchers, the ATC is required to direct multiple units in the field, assimilate and dispatch information received from a variety of sources and is responsible for the lives of others.

Cobb and Rose (1973), in a study of occupational stress in air traffic controllers, found a higher incidence of hypertension, peptic ulcers, and diabetes in ATC's when compared to the general population. LaRue (1980) noted that police dispatchers show a higher incidence of heart disease, allergies, nervous disorders, suicide, divorce and alcoholism. Crump (1979) identified workload as the most significant source of stress for ATC's. This workload included the duration of radio communication, number of planes controlled and the pressure of time. Barrett (1985:9) stated that similar aspects of job performance are also noted for the police dispatcher. "Radio and telephone calls are recorded and analyzed for peak efficiency, a significant number of patrol units must be constantly monitored, and priority calls must be handled in swift succession."

In the discussion of dispatcher stress, Sewell and Crew (1984:6) cited Martindale's (1977) cynical advertisement for air traffic controllers. This could readily be applied to dispatchers:

"**HELP WANTED:** World's busiest airport seeks radar jockeys for unusually stimulating, high - intensity environment. Must be able to direct at least 12 aircraft at one time and make instant decisions affecting the safety of thousands. No degree required, but prior experience as a traffic cop, seeing eye-dog, or God helpful. Severe stress will jeopardize sanity and result in early termination from job, but employer will absorb cost of medical and psychiatric care."

Studies have found that police dispatchers have stressors unique to their own occupation. According to Sewell and Crew (1984), there are ten (10) aspects of the dispatchers job which contributes to stress. They are: (1) Second-class citizenship; (2) insufficient training; (3) multiple calls; (4) required decisions; (5) anticipation; (6) antiquated systems; (7) low control; (8) confinement and inadequate interpersonal communication; (9) negative citizen contact; and (10) lack of professional development.

Guthery and Guthery (1984) highlight eleven (11) stressors unique to police dispatchers. They are identified as: (1) Being relegated to a low position on the department's hierarchy and treated as such; (2) feeling that police officers do not care about them; (3) lack of breaks; (4) shift work; (5) insufficient pay compared to the level of skills necessary to perform the job;

(6) lack of uniform certification process; (7) insufficient ongoing training; (8) hypervigilance and anticipatory stress; (9) sexism; (10) calls involving abusive or irate citizens, emergency calls, or child abuse calls; and (11) lack of support and positive reinforcement from supervisors and management. These stressors, if not identified and minimized, may eventually result in job burnout.

Burnout

According to Payne (1984), stress is the initial stage of the "burnout" syndrome. Pines, Aronson and Kafry (1981:15) stated that:

"... burnout is the result of constant or repeated emotional pressure associated with an intense involvement with people over long periods of time. Such intense involvement is particularly prevalent in... social service occupations, where professionals have a 'calling' to take care of other people's psychological, social, and physical problems. Burnout is the painful realization that they no longer can help people in need, that they have nothing left in them to give."

Burnout is characterized by emotional exhaustion and cynicism that occurs frequently among individuals who do "people work". Burnout may lead people to feel unhappy about themselves and dissatisfied with their accomplishments on the job (Maslach and Jackson, 1981). According to Freudenberger (1977), those persons who suffer from the "burnout syndrome" find themselves fatigued, depressed, irritable, bored and overworked. They tend to contribute less, while often working longer.

In addition, those experiencing job burnout often report physiological and health-related symptoms, such as severe headaches, muscle tension and/or shallow breathing . They find fault with everything and everyone, constantly complaining about the organization and reacting cynically to whatever is suggested or attempted by others.

Because burnout plays a significant role in stress research, burnout will be included as a measure of stress among dispatchers.

Burnout and the dispatcher

Maslach and Jackson (1981) highlighted three (3) aspects of the burnout syndrome: emotional exhaustion, depersonalization, and personal accomplishment. Emotional exhaustion is characterized as the dispatchers' feelings of fatigue and frustration. Dispatchers are emotionally drained at the end of the work shift and fatigued the following day at having to face another day. Emotional exhaustion is viewed as the primary component of burnout. The depersonalization phase occurs when the dispatcher may treat the citizens in a callous manner. They tend not to care about what happens and they develop a cynical attitude towards the job. One of the major contributing factors of depersonalization is that dispatchers often feel they are treated as impersonal objects by the citizens on the telephone and/or by the officers in the field. Citizens may blame the dispatcher for not responding quickly enough (when in fact it is the officer who is responding to the call for service) or not understanding their problem.

These factors may contribute significantly not only to job stress and/or burnout, but also to a lack of job satisfaction.

Job satisfaction

The study of job satisfaction is not a recent phenomenon. Since the Hawthorne studies of the 1920's, "there has been an enormous output of work on the nature, causes and correlates of job satisfaction" (Gruneburg, 1976:x). For example, Herzberg (1966) distinguished job satisfaction ("motivators" such as achievement, recognition for achievement, the work itself, responsibility, and growth or advancement) from job dissatisfaction ("hygiene factors" that are extrinsic to the job and include company policy and administration, supervision, interpersonal relationships, working conditions, salary, status and security).

According to Hulin, Smith, Kendall and Locke (1963) job satisfaction is the totality of an employee's feelings about various aspects of his/her work, which include the work itself, pay, promotional opportunities and policies, co-worker and supervisor support, and one's perceived status within their working environment. Although job status does not guarantee job satisfaction (Brief and Hollenbeck, 1985; Cherry, 1978; French, Caplan and Harrison, 1982; Quinn and Shepard, 1974) job status may play a vital role in the emotional appraisal of job satisfaction (Boyd and McRoberts, 1982; Kaufman, 1985; Radde, 1986).

Job related stressors and job satisfaction

Job related stressors and job dissatisfaction have been widely studied (Alderfer, 1969; Blauner, 1960; Caplan, 1971; Caplan, Cobb, French, Harrison, and Pinneau, 1975; Indik, 1963; Kahn, 1972; Mott, Mann, McLaughlin, and Warwick, 1965; Porter, Lawler, and Hackman, 1975; Quinn, Seashore, Kahn, Mangione, Campbell, Staines, and McCullough, 1971, Vroom 1964, 1969; Zander and Quinn, 1962). Job dissatisfaction and job stress have been linked to : (1) Conditions at work (health and safety hazards and unpleasant work conditions; physically demanding and long hours of work; shift work; unclear expectations of tasks; and lack of control over the work load); (2) the work itself (lack of use of skills and abilities and repetitive job functions); (3) the work group (lack of positive interaction with co-workers; lack of cohesiveness among co-workers; and non-acceptance by co-workers); (4) supervision (lack of decision-making ability; lack of feedback; lack of recognition; and lack of understanding or consideration); (5) the organization (large organization with a lack of promotional opportunities and discrimination in hiring and promotion process); (6) wages (low financial rewards or perceived inequity in wages) (Copper and Payne, 1978). These factors may readily apply to the dispatcher and may significantly contribute to dispatcher stress.

Research indicates that there may be a correlation between job satisfaction and job stress.

Thus, it is expected that dispatchers who perceive low levels of job satisfaction (due to their lack of promotional opportunities, low status within the organization, poor pay, lack of supervisory support, etc.) will report occupational stress/burnout.

METHODS

Sample and procedure

The sample consisted of civilian dispatchers (both police and fire/ambulance) randomly selected from various agencies from within the counties of southern New Jersey (N = 203). The selection of both police and fire/ambulance dispatchers provided data concerning all participating emergency dispatchers within the selected region. In addition, by selecting only civilian dispatchers, status issues not pertaining to sworn officers performing dispatcher duties, could be addressed. Furthermore, the counties of southern New Jersey were selected because they included urban, suburban and rural agencies (thereby permitting greater state and national representation of dispatchers).

To encourage participation and increase both reliability and validity to the study, each police and fire/ambulance agency was contacted by a personal phone call to the respective chiefs/supervisors (representatives). The purpose of the study was explained during the conversation. In addition, discussion also focused upon the selection and training procedures of dispatchers in their department.

The chiefs/supervisors provided a count of dispatchers within their department to allow proper survey mailings.

Immediately after consultation with the chiefs/supervisors, the prepared surveys and instructions were mailed (certified) to the representatives with a self-addressed/stamped envelope for the return of all of the surveys (bulk).

A coding system was developed so that all of the surveys could be accounted for and a statistical analysis by region could be made.

Measurements of stress/burnout

Dispatcher stress (dependent variable) was defined as "the nonspecific response of the body to any demand made upon it" (Selye, 1976). Dispatcher stress was measured by (1) The Occupational Stress Inventory (OSI) and (2) Maslach's Burnout Inventory.

The OSI measures the extent to which individuals experience specific work conditions generally agreed upon in the literature as stressful (Osipow and Spokane, 1981). Occupational stress is measured by a set of six (6) subscales called the Occupational Roles Questionnaire (ORQ) which include the following measures: Role Overload (RO), Role Insufficiency (RI), Role Ambiguity (RA), Role Boundary (RB), Responsibility (R), and Physical Environment (PE).

Role Overload measures the extent to which job demands exceed resources (personal and work place) and to the extent to which an individual is able to accomplish expected work load.

Role Insufficiency measures the extent to which the individual's training, education, skills, and experience are appropriate to job requirements. Role ambiguity measures the extent to which the priorities, expectations, and evaluation criteria are clear to the individual. Role Boundary measures the extent to which the individual is experiencing conflicting role demands and loyalties in the work setting. Responsibility measures the extent to which the individual has, or feels, a great deal of responsibility for the performance and welfare of others on the job. Physical Environment measures the extent to which the individual is exposed to high levels of environmental toxins or extreme physical conditions (Osipow and Spokane, 1981).

In addition to the ORQ, The Occupational Stress Inventory measures the domain of psychological strain, referred to as The Personal Strain Questionnaire (PSQ), and is comprised of four (4) subscales: Vocational Strain (VS), Psychological Strain (PSY), Interpersonal Strain (IS), and Physical Strain (PHS). Vocational Strain measures the extent to which the individual is having problems in work quality or output. Attitudes toward work are also measured. Psychological Strain measures the extent of psychological and/or emotional problems being experienced by the individual. Interpersonal Strain measures the extent of disruption in interpersonal relations. Physical Strain measures complaints about physical illness or poor self-care habits (Osipow and Spokane, 1981).

The Maslach Burnout Inventory (MBI) is the best known and most widely used questionnaire for the assessment of individual occupational burnout among human service workers and others whose work involves intense interaction with other people (Maslach and Jackson, 1981). The MBI is a 22-item, self-report inventory composed of three (3) subscales designed to measure three (3) dimensions that Maslach and Jackson believe best define the experience of burnout: Emotional Exhaustion, Depersonalization, and lack of Personal Accomplishment.

The nine-item Emotional Exhaustion subscale assesses feelings of being emotionally over-extended and exhausted by one's work. The five-item Depersonalization subscale measures impersonal and uncaring attitudes towards the people one is serving. The eight-item Personal Accomplishment subscale assesses feelings of achievement and accomplishment in one's work.

Measurement of job satisfaction

Job satisfaction was defined as the totality of an employee's feelings about the various aspects of his/her occupation. The aspects of job satisfaction include: The work itself; pay; promotional opportunities and policies; and coworker and supervisory support. Job satisfaction was measured by the Job Descriptive Index (JDI).

The JDI is a set of five (5) scales which measure five (5) aspects of job satisfaction, which include: (1) The nature of the work; (2) details of remuneration; (3) the nature of promotional opportunities; (4) characteristics of supervision; and (5) the coworkers on the job (Smith, Kendall and Hulin, 1975).

RESULTS

Pearson's Product-Moment Correlation Coefficient was utilized to examine the correlations between the thirteen (13) subscales measuring dispatcher stress/strain/burnout and the six (6) subscales measuring job satisfaction. While the results represent both positive and negative correlations, only positive correlations are found using the burnout subscale of "personal accomplishment". This is not surprising in that "personal accomplishment" measures positive traits, while the other subscales measure negative traits.

As indicated in Table 1,

(Insert Table 1 here)

overall statistics reveal a strong correlation between dispatcher burnout and their perceived lack of job satisfaction. Specifically, the dispatchers' perception of their "present job" (their current position) and their "job in general" (their current occupation) are highly correlated with the following burnout subscales: (1) "Personal accomplishment" ($r = .555$; $p < .001$ and $r = .368$; $p < .001$), respectively), which measures the dispatchers' achievement and accomplishment on the job; (2) "emotional exhaustion" ($r = -.641$; $p < .001$ and $r = -.598$; $p < .001$, respectively), assessing the feelings of being over-extended and exhausted by one's work;

and (3) "depersonalization" ($r = -.535$; $p < .001$ and $r = -.500$; $p < .001$, respectively), which measures impersonal and uncaring attitudes of dispatchers.

Simply stated, those dispatchers who are satisfied with their job perceive a sense of achievement and accomplishment; while those who are dissatisfied with their present occupation report an uncaring attitude towards the people they serve. In addition, this dissatisfaction may be attributed to the dispatcher becoming "emotionally over-extended" and exhausted by their work.

(Insert Table 2 here)

As noted in Table 2, a strong statistical correlation also exists among the job satisfaction subscales of "present job" and "job in general" and the following stress/strain subscales: (1) "Role overload" ($r = -.302$; $p < .01$ and $r = -.259$; $p < .01$, respectively), indicating that as the dispatcher's job demands exceeds their resources, the stronger the probability that they will be unhappy with their present position and occupation; (2) "role insufficiency" ($r = -.605$; $p < .001$ and $r = -.569$; $p < .001$, respectively), reflecting that training, education, skills, and experience are perceived as significant factors in one's job. In other words, a lack of training, education, etc., may negatively affect one's perception about their present job and occupation;

(3) "role ambiguity" ($r = -.296$; $p < .01$ and $r = -.332$; $p < .01$, respectively), implying that as the clarity of occupational priorities and expectations becomes ambiguous, the more likely that the dispatcher will report being dissatisfied with their present position and occupation; (4) "role boundary" ($r = -.559$; $p < .001$ and $r = -.533$; $p < .001$, respectively), showing that as one's role conflict and role demand increases, perceived job satisfaction with one's present job and occupation decreases; (5) "responsibility" ($r = -.269$; $p < .01$, "job in general" only), designating that the extent to which a dispatcher may perceive a sense of responsibility for the performance and welfare of others may negatively affect their perceptions about their occupation; (6) "physical environment" ($r = -.391$; $p < .001$ and $r = -.359$; $p < .001$, respectively), indicating that adverse environmental working conditions may negatively affect the dispatchers' perceptions of their present job and occupation; (7) "vocational strain" ($r = -.657$; $p < .001$ and $r = -.593$; $p < .001$, respectively), implying that the difficulties of work quality and/or output negatively affects one's perception in reference to their job and occupation; (8) "psychological strain" ($r = -.617$; $p < .001$ and $r = -.541$; $p < .001$, respectively), suggesting that emotional and/or psychological difficulties may adversely affect the dispatchers' perception about their present job and occupation;

(9) "interpersonal strain" ($r = -.386$; $p < .001$ and $r = -.481$; $p < .001$, respectively), implying that one's perception as to their present job and occupation may be negatively affected by the extent of disruption in interpersonal relations; and (10) "physical strain" ($r = -.498$; $p < .001$ and $r = -.413$; $p < .001$, respectively), designating that complaints of physical illness among dispatchers may adversely affect the perceptions about their present job and occupation as a whole.

In summary, those dispatchers who are not satisfied with their present job report occupational stress/strain. Additionally, one's occupational role may be of vital importance to job satisfaction and stress. For example, dispatchers who perceive that their present job demands exceeds their available resources may become disenchanted with their job, thus leading to occupational strain.

It is interesting to note that correlations including variables of "present job" (current position) and "job in general" (current occupation) reflect similar results. There is a strong probability that individual scores of each of those variables measures similar traits of job satisfaction (Pearson's correlation reveals a strong relationship between the variables of "job in general" and "present job" ($r = .616$)).

Although both "present job" and "job in general" show strong correlations to strain measures, the strongest correlation with "job in general" is "emotional exhaustion", which accounts for approximately thirty-six percent (36%) of the variance ($r^2 = .357$), whereas the strongest correlation with "present job" is "vocational strain", which accounts for approximately forty-three percent (43%) of the variance ($r^2 = .432$).

Thus, those dispatchers who are unhappy with their present positions or their job in general suffer from occupational stress/strain/burnout.

(Insert Table 3 here)

Table 3 reflects that the job satisfaction subscale of "present pay" (salary of dispatchers) correlates significantly with the following subscales: (1) "Emotional exhaustion" ($r = -.262$; $p < .01$), indicating that the dispatchers' perception of inadequate pay may be a significant factor in their reporting of emotional exhaustion and over-extension by their work; (2) "role insufficiency" ($r = -.272$; $p < .01$), suggesting that the dispatchers' salary does not reflect the amount of training, education, skills and experience necessary to fulfill their job functions;

(3) "role boundary" ($r = -.212$; $p < .05$), implying that the inadequate salary of the dispatcher may be a significant factor contributing to conflicting role demands and loyalties within the working environment; (4) "physical environment" ($r = -.255$; $p < .01$), showing that extreme environmental or physical conditions within the work setting are not consistent with financial rewards; (5) "psychological strain" ($r = -.212$; $p < .05$), suggesting that the psychological and/or emotional problems reported by dispatchers may be reflective of inadequate pay; (6) "interpersonal strain" ($r = -.299$; $p < .01$), indicating that one's interpersonal relationships may be adversely affected by minimal financial incentives; and (7) "physical strain" ($r = -.241$; $p < .05$), implying that low pay may be a contributing factor in physical complaints and/or illnesses reported by the dispatcher.

The strongest correlation with the job satisfaction subscale of "pay" among dispatchers is "interpersonal strain", which accounts for approximately nine percent (9%) of the variance ($r^2 = .089$). This would indicate that the lack of pay perceived by dispatchers, affects their interpersonal relations. For example, it is possible that the lack of financial gain limits the dispatcher in his/her social activities and/or financial responsibilities, thus affecting interpersonal relations (It is important to note that this correlation is weak when compared to other statistically significant job satisfaction measures).

The overall results indicate that dispatchers are dissatisfied with their present pay and that this may be a contributing factor in their perceived job stress/strain/burnout.

(Insert Table 4 here)

As shown in Table 4, the subscale measuring "promotion" (available promotional opportunities) reveals significant correlations with: (1) "personal accomplishment" ($r = .229$; $p < .05$), indicating that promotional opportunities is of particular significance to the dispatchers' feelings of occupational achievement and accomplishment; (2) "depersonalization" ($r = -.211$; $p < .05$), suggesting that the lack of promotional opportunities may contribute to the impersonal and uncaring attitudes among dispatchers towards the people they serve; (3) "role overload" ($r = -.245$; $p < .05$), implying that promotional opportunities remain unavailable to the dispatcher in spite of the fact that their role demands exceeds their resources; (4) "role insufficiency" ($r = -.439$; $p < .001$), indicating that the dispatcher's training, education, skills, and experience are not likely to be considered (by supervisors) for promotional purposes; (5) "role ambiguity" ($r = -.215$; $p < .05$), showing that the dispatchers' priorities, expectations, and evaluation criteria are unclear, thus negatively affecting job advancement; (6) "role boundary" ($r = -.356$, $p < .001$), connoting that conflicting role demands among dispatchers may unfavorably affect promotional opportunities;

and (7) "physical environment" ($r = -.278$; $p < .01$), suggesting that, although dispatchers may be exposed to extreme physical conditions at work, promotional opportunities are lacking.

The strongest correlation is observed between "promotion" and "role insufficiency", which accounts for approximately twenty percent (20%) of the variance ($r^2 = .193$). These findings indicate that training and education are important factors in promotional opportunities. Thus, those dispatchers unable to receive the necessary skills to fulfill their job function may not be able to advance within the organization. Furthermore, a lack of promotional opportunities may be a contributing factor to job dissatisfaction and stress among dispatchers.

(Insert Table 5 here)

Table 5 indicates that the job satisfaction subscale measuring "supervision" (immediate supervisor of dispatcher) is significantly correlated with: (1) "Emotional exhaustion" ($r = -.406$; $p < .001$), suggesting that a lack of immediate supervisory support may significantly contribute to emotional exhaustion by the dispatcher; (2) "depersonalization" ($r = -.252$; $p < .01$), implying that a lack of supervisory feedback may contribute to the dispatchers' impersonal and uncaring attitude towards the supervisor, fellow employees, and citizens;

(3) "role insufficiency" ($r = -.389$; $p < .001$), designating that one's training, education, skills, and experience are insufficient without proper supervisory advise and support; (4) "role ambiguity" ($r = -.504$; $p < .001$), indicating that without the necessary supervisory support, dispatchers perceive that their expectations are unclear; (5) "role boundary" ($r = -.573$; $p < .001$), suggesting that role demands and loyalties in the work setting are obscure without sufficient feedback from one's immediate supervisor; (6) "physical environment" ($r = -.285$; $p < .01$), implying that a lack of supervisory support may contribute significantly to the dispatchers' perception of a poor working environment; (7) "vocational strain" ($r = -.347$; $p < .01$), indicating that without proper supervision, the dispatcher perceives difficulties with the quality of their work; (8) "psychological strain" ($r = -.269$; $p < .01$), designating that psychological and/or emotional problems among dispatchers may be the result of inadequate immediate supervision; (9) "interpersonal strain" ($r = -.316$; $p < .01$), suggesting that one's interpersonal relationships may be adversely affected by a lack of supervisory support and feedback; and (10) "physical strain" ($r = -.236$; $p < .05$), implying that inadequate supervision may significantly contribute to one's complaints about physical illness.

The strongest correlation among dispatchers is reported between the "supervision" and "role boundary" subscales, accounting for approximately thirty-three percent (33%) of the variance ($r^2 = .329$), suggesting that conflicting role demands by one's immediate supervisor and a lack of supervision may cause job dissatisfaction among dispatchers, which in turn, may produce job stress and/or burnout. In essence, these results indicate that inadequate immediate supervision may play a vital role in occupational stress/strain.

(Insert Table 6 here)

The final category of job satisfaction included the perceptions of co-workers by dispatchers. Table 6 contains the following stress measures which correlate significantly with the "people on the job" (co-worker subscale: (1) Emotional exhaustion ($r = -.384$; $p < .001$), implying that those dispatchers lacking co-worker support perceive job stress; (2) depersonalization" ($r = -.379$; $p < .001$), suggesting that a lack of peer support may be a contributing factor for those dispatchers reporting an impersonal and uncaring attitude towards the people they serve; (3) "role overload" ($r = -.215$; $p < .05$), designating that dispatchers who lack co-worker support may perceive that their job demands exceed their available resources, thus are unlikely to accomplish their assigned tasks;

(4) "role insufficiency" ($r = -.354$; $p < .001$), indicating that the perceived lack of training, education, skills, and experience among dispatchers reporting occupational stress may be minimized with the assistance of co-worker support and advise; (5) "role ambiguity" ($r = -.280$; $p < .01$), implying that without the aid of peer support, dispatchers may find their occupational priorities, expectations and evaluation criteria ambiguous; (6) "role boundary" ($r = -.449$; $p < .001$), connoting that perceived peer support may reduce the conflicting role demands and loyalties reported by dispatchers; (7) "responsibility" ($r = -.223$; $p < .05$), suggesting that co-worker support can significantly influence those dispatchers who perceive a great deal of responsibility for the performance and welfare of others on the job; (8) "physical environment" ($r = -.304$; $p < .01$), showing that the perceived extreme physical working conditions experienced by dispatchers may be minimized by co-worker support; (9) "vocational strain" ($r = -.366$; $p < .001$), implying that a perceived lack of peer support may significantly influence the work quality and output of the dispatcher; (10) "psychological strain" ($r = -.479$; $p < .001$), designating that co-worker support and advise may reduce the extent of psychological and/or emotional difficulties experienced by the dispatcher; (11) "interpersonal strain" ($r = -.347$; $p < .001$), indicating that without the proper peer support dispatchers may experience significant disruption in their interpersonal relations;

(12) and "physical strain" ($r = -.310$; $p < .01$), implying that a lack of co-worker support and advice may significantly contribute to the complaints about physical illness experienced by dispatchers.

The strongest correlation among dispatchers and coworkers is "psychological strain", which accounts for approximately twenty-three percent (23%) of the variance ($r^2 = .229$). Specifically, psychological and/or emotional problems experienced by the dispatcher may be reduced with proper peer support. Simply stated, co-worker support is of the utmost importance for job satisfaction among dispatchers. Thus, when a dispatcher perceives peer support, occupational stress/strain may be minimized; conversely, when co-worker support is lacking, job stress/strain is probable.

Overall results indicated that perceived job satisfaction is a major factor in dispatcher stress/strain and/or burnout on the job. Specifically, those dispatchers most satisfied with their present job perceived a sense of achievement and accomplishment for their assigned tasks. However, job dissatisfaction was the norm rather than the exception. Those dispatchers not satisfied with their present job exercised an uncaring attitude towards the public. Additionally, they reported feeling emotionally exhausted and indicated that their role demands were often in conflict with their expectations of the job. Furthermore, the lack of pay, lack of promotional opportunities and lack of supervisory and co-worker support contributed to their perception of job stress.

DISCUSSION

Summary of findings

Job satisfaction was defined as the totality of an employee's feelings about various aspects of his/her occupation. The aspects of job satisfaction included: The work itself; pay; promotional opportunities and policies (including training); and co-worker and supervisory support.

Results indicated that perceived job dissatisfaction was a major factor in dispatcher stress/strain/burnout on the job. Specifically, those dispatchers who were dissatisfied with their current position or their job (in general), experienced significant stress/strain and/or occupational burnout. Stress/strain/burnout was also reported by dispatchers who were dissatisfied with their current pay and promotional opportunities. In addition, dispatchers in this study reflected a high level of conflicting role demands and loyalties in their role setting. This conflict was magnified by their immediate supervision. In other words, as the perceived role of the dispatcher was made more complex by one's immediate supervisor, there was a greater sense of stress/strain on the job. Coworkers also played a vital role in dispatcher stress. In particular, dispatchers reported occupational stress/strain/burnout when they perceived a lack of support from their peers.

Unique aspects of dispatcher stress

To provide a better understanding of dispatcher stress and job satisfaction, it may prove valuable to examine a few of the unique aspects of the occupation. In other words, how is dispatcher stress different from the stress/strain experienced in other occupations?

One of the stressors that may indirectly affect job satisfaction among dispatchers is the perception of low status. It is not uncommon for dispatchers to hear the remark (from departmental personnel and/or from callers) "What do you expect, they are only dispatchers?" This perception of being a "second-class" citizen may be reinforced by their civilian status within a "sworn" organization and/or their physical isolation from other departmental personnel. This degradation not only stems from coworkers, but supervisors and other civilian who participate in "dispatcher bashing". For example, supervisors may reinforce the dispatcher's low status by highlighting their (the dispatcher) low position on the organizational chart. Civilians may be abusive and irate to the dispatcher, while at the same time demanding immediate attention/assistance.

Another unique source of dispatcher stress may be found within their perceptions of responsibility and welfare for others. A dispatcher is considered to be the "life-line" to fellow workers and citizens. Thus, when a call for assistance is requested, it is the dispatcher who must initiate the response and monitor the progress.

For example, when a police officer calls for immediate assistance, it is the responsibility of the dispatcher to identify the problem and dispatch available units to the scene; while at the same time, remaining calm and handling other incoming emergencies. Other emergencies may include calls from citizens requesting immediate attention or requiring the dispatcher to actually provide the caller with a step by step process to dislodge a food product from a choking baby to prevent the child from asphyxiating. These processes are often performed with little formal training.

The lack of formal training may be another unique aspect of dispatcher stress and job dissatisfaction. While many occupations require advanced educational degrees and provide formal training to employees, the dispatcher often learns their trade on the job. Although their high level of responsibility would suggest proper training, academy and ongoing in-service training programs are lacking for dispatchers. Those programs/workshops that do exist are often conducted by private organizations, not associated with the particular agency. Furthermore, if the dispatcher decided to attend an "outside" training program, it is unlikely that their department will reimburse the dispatcher for expenses. This may be valid in spite of the fact that departments will not hesitate to financially reimburse or sponsor a "sworn" officer who attends a training program.

IMPLICATIONS AND RECOMMENDATIONS

The findings in this study may prove valuable to emergency dispatchers, as well as police and fire/ambulance supervisors and administrators. For example, a supervisor realizing the importance of a satisfied dispatcher may wish to: (1) Examine promotional opportunities (particularly those who may perceive themselves as "lower status" employees); (2) increase the salary and benefits; (3) provide the necessary support (both supervisory and peer); (4) provide training sessions so that the training, education and skills of the dispatcher correspond to the job demands; and (5) re-examine the job demands to minimize the potential for role overload.

In conclusion, the results of this research statistically support the notion that emergency dispatchers are experiencing occupational stress/strain. Although job satisfaction may play a vital role in the determination of job stress, other variables, such as social support and control (internal and external) may also contribute significantly to dispatcher stress and burnout. These variables will be included within future research.

BIBLIOGRAPHY

- Alderfer, Clayton P. (1969) "Job enlargement and the organizational context." *Personal Psychology*, 22, 418-426.
- Barrett, Robert F. (1985) "The effectiveness of a cognitive behavioral intervention program in remediating symptoms of stress in a police communication center" (Doctoral dissertation, California School of Professional Psychology). *Dissertation Abstracts International*, 46/06-B, 2054.
- Blauner, R. (1960) "Work satisfaction and industrial trends in modern society." In W. Gellenson & S. Lipset (Eds.), *Labor and Trend Unionism*. New York: Wiley.
- Boyd, Marjorie and Hugh A. McRoberts (1982) "Women, men, and socioeconomic indices: An assessment." In M.G. Powers (Ed.), *Measure of Socio-economic Status: Current Issues* (pp. 129-159). Colorado: Westview.
- Brief, Arthur P. and John R. Hollenbeck (1985) "Work and the quality of life." *International Journal of Psychology*, 20, 199-206.
- Caplan, Robert D. (1971) *Organizational stress and individual strain: A social-psychological study of risk factors in coronary heart disease among administrators, engineers, and scientists*. Unpublished doctoral dissertation, The University of Michigan, Michigan.

- Caplan, Robert D., S. Cobb, John R.P. French, Richard V. Harrison, and S.R. Pinneau (1975) **Job demands and worker health.** Washington, DC: U.S. Department of Health, Education and Welfare.
- Cherry, Nicola (1978) "Stress, anxiety and work: A longitudinal study." **Journal of Occupational Psychology**, 51, 259-270.
- Cobb, S. and R.M. Rose (1973) "Hypertension, peptic ulcer and diabetes in air traffic controllers." **Journal of the American Medical Association**, 222, 489-492.
- Cooper, Cary L. and Robert Payne (1978) **Stress at work.** New York: John Wiley and Sons.
- Crump, J.H. (1979) "Review of stress in air traffic controllers: Its measurement and effects." **Aviation, Space and Environment Medicine**, 50(3), 257-261.
- Doerner, William G. (1987) "Police Dispatcher Stress." **Journal of Police Science and Administration**, 15(4), 257-261.
- Eisdorfer, Carl and F. Wilkie (1978) "Stress, disease, aging and behavior." In J. Buren and W. Schaie (Eds.), **Handbook of the psychology of aging.** New York: Reinhold.
- French, John R.P., Robert D. Caplan and Richard V. Harrison (1982) **The Mechanisms of job stress and strain.** New York: Wiley.
- French, John R.P., W. Rogers and S. Cobb (1974) "Adjustment as person-environment fit." In G.V. Coelho, D.A. Hamburg, & J.E. Adams (Eds.), **Coping and Adaption.** New York: Basic Books.

- Freudenberger, Herbert (1977) "Burnout: Occupational hazard of the child case worker." *Child Case Quarterly*, 6, 90-99.
- Gruneberg, Michael M. (1976) *Job Satisfaction*. New York: Wiley.
- Guthery, Tom and Jean Guthery (1984, December). "Dispatchers: The vital link." *Police Product News*, 32,33,50,& 51.
- Herzberg, Frederick (1966) *Work and the nature of man*. Ohio: World.
- Hinkle, Lawrence E., Jr. (1977). "The concept of "stress" in the biological and social sciences." In Z.J. Lipowski, D.R. Lipitt, & P.C. Whybrow (Eds.). *Psychosomatic medicine: Current trends and applications*, (pp. 27-49). New York: Oxford.
- Hulin, Charles. L., Philip C. Smith, Lorne M. Kendall and Edwin A. Locke (1963) *Cornell studies of job satisfaction: Model and method of measuring job satisfaction*. Cornell University (Mimeo).
- Hurst, Michael W. and Robert M. Rose (1978) "Objective job difficulty, behavioral response, and sector characteristics in air route traffic control centers." *Ergonomics*, 21(9), 707.
- Indik, Bernard P. (1963) "Some effects of organization size on member attitudes and behavior." *Human Relations*, 16, 369-384.

- Kahn, Robert Lewis (1970) "Some propositions toward a researchable conceptualization of stress." In Joseph E. McGrath (Ed.), *Social and Psychological Factors in Stress* (pp. 97-103). New York: Holt.
- Kahn, Robert Lewis (1972) "The meaning of work: interpretation and proposals for measurement." In A. Campbell and P.E. Converse (Eds.), *The Human Meaning of Social Change* (pp. 159-203). New York: Russell.
- Kaufman, Carol G. (1985) *Role conflict, coping strategies, and coping success among women in the medical professions*. Unpublished doctoral dissertation. Colorado State University, Colorado.
- Kroes, William H., Lawrence L. Margolis and Joseph J. Hurrell (1974) "Job stress in policemen." *Journal of Police Science and Administration*, 2(2), 145-155.
- Ksionzky, Sheldon and Albert Mehrabian (1986) "Temperament characteristics of successful police dispatchers: Work settings requiring continuous rapid judgments and responses to complex information." *Journal of Police Science and Administration* 14(1), 45-48.
- Landy, Frank (1985) *The Psychology of Work Behavior*. Illinois: Dorsey Press.
- LaRue, S. (1980, October, 19). "Radio is police officers lifeline." *The San Diego Union*, pp. B-2, 12, 13.
- Martindale, Donald (1977) "Sweaty palms in the control tower." *Psychology Today*, 11(2), 71-75.

- Maslach, Christina and Susan E. Jackson (1981) **Maslach Burnout Inventory**. California: Consulting Psychologists Press.
- McGrath, Joseph E. (1970) "A conceptual formulation for research on stress." **Social and Psychological Factors in Stress**. New York: Holt.
- Medows, R. (1981) "Officer Distress." **Police Chief**, pp. 26, 56.
- Mott, Paul E., Floyd C. Mann, Q. McLaughlin and Donald P. Warwick (1965) **Shift work**. Ann Arbor; University of Michigan Press.
- Osipow, Samuel H. and Arnold R. Spokane (1981) **The Occupational Environment Scales, Form E-2**. Ohio: Marathon.
- Payne, William S. (1982) **Job Stress and Burnout**. California: Sage.
- Pines, Ayala M., Elliot Aronson and Ditsa Kafry (1981) **Burnout from Tedium to Personal Growth**. New York: Free Press.
- Porter, Lyman W., Edward E. Lawler, III and J. Richard Hackman (1975) **Behavior in Organizations**. New York: McGraw-Hill.
- Quinn, Robert P. and L. Shepard (1974) **The 1972-73 quality of employment survey**. Ann Arbor: University of Michigan Survey Research Center.
- Quinn, Robert P., S. Seashore, Robert Kahn, T. Manione, Duncan Campbell, G. Staines and M. McCullough (1971) **Survey of working conditions** (Document No. 2916-0001). Washington, DC: U.S. Government Printing Office.
- Radde, Paul O. (1986, January) "Dealing with employee status deprivation." **Training and Development Journal**, pp. 61-64.

- Revicki, D.A. and H.J. May (1985) "Occupational stress, social support and depression." *Health Psychology* 4(1), 61-77.
- Selye, Hans (1974) *Stress without distress*. Philadelphia: Lippincott.
- Selye, Hans (1982) "History and present status of the stress concept." In L. Goldberger and S. Breznitz (Eds.), *Handbook of Stress*. New York: Free Press.
- Sewell, James D. and L. Crew (1984) "The forgotten victim: stress and the police dispatcher." *FBI Law Enforcement Bulletin*, 53(3), 7-11.
- Smith, Patricia C., Lorne M. Kendall and Charles L. Hulin (1975) *The Measurement of Satisfaction in Work and Retirement: A Strategy for the Study of Attitudes*. Ohio: Bowling Green State University.
- Stratton, John G. (1984) *Police Passages*. California: Glennon.
- Territo, L. and H.J. Vetter (1981) "Stress and police personnel." *Journal of Police Science and Administration*, 9(2), 195-207.
- Vroom, V.H. (1969). "Industrial Social Psychology." In G. Lindzey, & E. Aronson (Eds.), *Handbook of Social Psychology* (pp. 196, 268). Massachusetts: Addison.
- Zander, Alvin and Robert P. Quinn (1962) "The social environment and mental health: A review of past research at the Institute for Social Research." *Journal of Social Issues* 18(3), 48-66.

Table 1. Correlations Between The Subscales of Dispatcher Burnout and Perceived Lack of Job Satisfaction

	PRESENT JOB	JOB IN GENERAL
PERSONAL ACCOMPLISHMENT	.555 ^a	.368 ^a
EMOTIONAL EXHAUSTION	-.641 ^a	-.598 ^a
DEPERSONALIZATION	-.535 ^a	-.500 ^a

^a = $p < .001$

(N = 203)

Table 2. Correlations Between Job Satisfaction Subscales and
Dispatcher Stress and Strain Subscales

	PRESENT JOB	JOB IN GENERAL
ROLE OVERLOAD	-.302 ^b	-.259 ^b
ROLE INSUFFICIENCY	-.605 ^a	-.569 ^a
ROLE AMBIGUITY	-.296 ^b	-.332 ^b
ROLE BOUNDARY	-.559 ^a	-.533 ^a
RESPONSIBILITY	-.167 ^{ns}	-.269 ^b
PHYSICAL ENVIRONMENT	-.391 ^a	-.359 ^a
VOCATIONAL STRAIN	-.657 ^a	-.593 ^a
PSYCHOLOGICAL STRAIN	-.617 ^a	-.541 ^a
INTERPERSONAL STRAIN	-.386 ^a	-.481 ^a
PHYSICAL STRAIN	-.498 ^a	-.413 ^a

^a = $p < .001$

^b = $p < .01$

^{ns} = $p > .05$, not significant

(N = 203)

Table 3. Correlations Between Dispatcher Stress/Strain/Burnout
Subscales and Pay

	PAY
EMOTIONAL EXHAUSTION	-.262 ^b
ROLE OVERLOAD	-.272 ^b
ROLE BOUNDARY	-.212 ^c
PHYSICAL ENVIRONMENT	-.255 ^b
PSYCHOLOGICAL STRAIN	-.212 ^c
INTERPERSONAL STRAIN	-.299 ^b
PHYSICAL STRAIN	-.241 ^c

^b = p < .01

^c = p < .05

(N = 203)

Table 4. Correlations Between the Subscales Measuring Dispatcher Stress/Strain/Burnout and Promotional Opportunities

	PROMOTION
PERSONAL ACCOMPLISHMENT	.229 ^c
DEPERSONALIZATION	-.211 ^c
ROLE OVERLOAD	-.245 ^c
ROLE INSUFFICIENCY	-.439 ^a
ROLE AMBIGUITY	-.215 ^c
ROLE BOUNDARY	-.356 ^a
PHYSICAL ENVIRONMENT	-.278 ^b

^a = p < .001

^b = p < .01

^c = p < .05

(N = 203)

Table 5. Correlations Between Dispatcher Stress/Strain/Burnout
Subscales and Supervisory Support

	SUPERVISION
EMOTIONAL EXHAUSTION	-.406 ^a
DEPERSONALIZATION	-.252 ^b
ROLE INSUFFICIENCY	-.389 ^a
ROLE AMBIGUITY	-.504 ^a
ROLE BOUNDARY	-.573 ^a
PHYSICAL ENVIRONMENT	-.285 ^b
VOCATIONAL STRAIN	-.347 ^b
PSYCHOLOGICAL STRAIN	-.269 ^b
INTERPERSONAL STRAIN	-.316 ^b
PHYSICAL STRAIN	-.236 ^c

^a = p < .001

^b = p < .01

^c = p < .05

(N = 203)

Table 6. Correlations Between Dispatcher Stress/Strain/Burnout
Subscales and Co-worker Support

	CO-WORKERS
EMOTIONAL EXHAUSTION	-.384 ^a
DEPERSONALIZATION	-.379 ^a
ROLE OVERLOAD	-.215 ^c
ROLE INSUFFICIENCY	-.354 ^a
ROLE AMBIGUITY	-.280 ^b
ROLE BOUNDARY	-.449 ^a
RESPONSIBILITY	-.223 ^c
PHYSICAL ENVIRONMENT	-.304 ^b
VOCATIONAL STRAIN	-.366 ^a
PSYCHOLOGICAL STRAIN	-.479 ^a
INTERPERSONAL STRAIN	-.347 ^a
PHYSICAL STRAIN	-.310 ^b

^a = p < .001

^b = p < .01

^c = p < .05

(N = 203)