Wellness, Fitness and Stress Management: Responding to the "Heart and Lung Bill"

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Abstract

In 2003, The Florida Legislature passed the "The Heart and Lung" bill which enacted the presumption that if a law enforcement officer develops any cardiovascular disease, or tuberculosis, during their employment, that disease is a result of their employment, providing that they were free of the aliment prior to employment, and therefore are entitled to Workman's Compensation benefits. This paper will examine the causation of cardiovascular disease as it relates to the law enforcement profession, discuss the potential financial impact of the bill, and explore what agencies in the state of Florida and California have done to combat the disease for their employees.

Introduction

In 2003 the State of Florida enacted the following statue:

Florida State Statue 112.18: Firefighters and law enforcement or correctional officers; special provisions relative to disability.

(1) Any condition or impairment of health of any Florida state, municipal, county, port authority, special tax district, or fire control district firefighter or any law enforcement officer or correctional officer as defined in s. 943.10 (1), (2), or (3) caused by tuberculosis, heart disease, or hypertension resulting in total or partial disability or death shall be presumed to have been accidental and to have been suffered in the line of duty unless the contrary be shown by competent evidence. However, any such firefighter or law enforcement officer shall have successfully passed a physical examination upon entering into any such service as a firefighter or law enforcement officer, which examination failed to reveal any evidence of any such condition. Such presumption shall not apply to benefits payable under or granted in a policy of life insurance or disability insurance, unless the insurer and insured have negotiated for such additional benefits to be included in the policy contract.

With the passage of FSS 112.18 known as the "Heart and Lung Bill", law enforcement agencies in the state of Florida began a journey they had never experienced. While most every agency deals with Workman's Compensation claims on a weekly, if not daily basis, rarely do they encounter catastrophic events that result in exorbitant hospital bills, long-term or even life long

expenses. Routine claims come in the form of sprains and strains that occur in the typical line of duty performance. Agencies routinely combat these types of injuries by using better equipment to avoid physical contact with a perpetrator (i.e. taser, oc spray etc…)

As a direct result of this bill, consideration must now be given to liability exposure an agency has for each employee every hour of every day- on duty or not. Now agencies must be cognizant of the causation of the diseases covered by this bill, not just of injuries as in the past, and work to continually protect their employees to avoid claims.

This paper will evaluate the statically facts related to heart disease, it causes and examine how the major factors of heart disease relates to the law enforcement life style and review what agencies are doing via policy to combat Cardiovascular Disease (CVD) among employees with respect to potential financial impact of the "Heart and Lung" Bill.

Methodology

This project report uses a library-base process of collecting and analyzing documents for the purpose of obtaining data supporting the argument that CVD is serious threat to law enforcement officers and that the agencies can by policy combat CVD within it's ranks. Information was obtained by conducting library and Internet searches. Library searches resulted in literature extracted from both academic journals and textbooks. Internet searches were conducted for the purpose of obtaining electronic versions of articles from academic journals, and e-journals.

Additionally, I conducted a survey of (8) large agencies,(those with 700 or more officers) in Florida and (4) in California, the survey was conducted via phone with each agencies Human Resource Department, asking the following questions:

1. Do you have non-smoker employment policy, if so how long must the applicant be smoke free?
2. Do you have any smoking policy for current employees, if so what?
3. Do you require an annual physical for all employees, if so who pays for it?
4. Do you require an annual fitness test, if so which type?

Using these materials and results, this project report will offer an analytic consideration of the potential role that agency hiring standards and policies may play in reducing CVD among their employees. While all answers to the survey questions are believed to true and accurate, it should be noted that civilian clerical staff answered the questions and they may not have been fully aware of their respective agencies polices.

Results

According to the American Heart Association (Heart Association, 2005) nearly 2,600 Americans die of Cardiovascular Disease (CVD) each day, which averages to one death, every thirty-four seconds. CVD is the number one killer in the United States and claims as many lives each year as the next five leading causes of death: cancer, chronic lower respiratory disease, accidents, diabetes mellitus, influenza and pneumonia combined.

While CVD claims the life of approximately 950,000 Americans each year, it is estimated that 13,000,000 suffer from some type of coronary heart disease and 65,000,000 suffer from High Blood Pressure (HBP)

The Heart Association has identified the following nine easily measured and potentially modifiable risk factors: cigarette smoking, abnormal blood lipid levels, hypertension, diabetes, obesity, a lack of physical activity, low fruit and vegetable consumption, over consumption of alcohol, and psychosocial index (stress).

The costs related to Cardiovascular Disease are enormous. The latest figures available estimate the direct cost (actual money spent) at 242 billion dollars and with consideration of indirect (lost productivity) the total economic impact is estimated at almost 393 billion dollars, a year. In an individual case, the cost of a survivable heart attack can easily reach $50,000.00 dollars.

CVD is neither unique to, nor absent from, the law enforcement profession. Therefore, Florida law enforcement agencies have incurred major increases in Workman's Compensation premiums. One such increase is exemplified by the increase experienced by the Hillsborough County Sheriff's Office, whereby their premiums rose from three million dollars a year, to seven million dollars a year in 2004. This tremendous increase occurred though the agency only experienced four claims; none of them were of a serious nature.

A study of law enforcement officers in the state of Iowa (Franke's 1997) revealed that law enforcement officers' rate of heart attacks, strokes, coronary surgery and other related conditions was 31.5 percent compared to the general population's rate of 18.4 percent. In the study Franke concluded that ones occupation poses a greater risk for heart disease than smoking or high blood pressure and poses about the same risk as diabetes or high cholesterol levels. His findings support the notion that job stress alone should be addressed as the paramount issue in regard to CVD in the law enforcement profession.

A 40 year study of law enforcement illness and death (Violaniti 2003) indicated that the average age of death for police officers was 66 years of age, compared to 73 for the average American. In addition to the seven year difference in age at death, he confirmed a great amount of dependence to alcohol and tobacco within the law enforcement profession.

Compounding the affects of stress in the profession, beyond the above mentioned dependency issues, eating habits are poor, and sleep habits irregular. In addition, most officers spent some, if not most of their off time with "off-duty" law enforcement jobs or some other type of part time employment, leaving little time for proper exercise, diet, or relaxation. This results in the profession

modeling most of the identified risk factors of CVD. Ideally, the overall physical condition of a police officer should have always been a priority for not only the individual, their family and agency but for the community served as well, being that an officer's physical condition could influence the outcome of a life or death situation with potentially any member of the community.

The Heart Association listed cigarette smoking as the number one risk factor for CVD. The tobacco risk goes beyond cigarettes, as illustrated in a 1998 study (Iribarren) that indicated that cigar smokers were at a 27% greater risk of CVD than non-cigar smokers. According to the National Cancer Institute, (National Cancer Institute, 2005) the use of smokeless tobacco also increases a person's chance of suffering from CVD.

Obesity and Lack of Exercise go hand in hand, and play a large part in diabetes (another risk factor for CVD). Obesity is best defined, in a measurable way, with consideration being given for the muscular make up the individual. The best indicator of obesity is the, BMI, Body Mass Index (Ross, 2004) In order to determine ones BMI an individual's weight in kilograms is divided by ones height in meters squared. (BMI=kg/m2). Below is a BMI chart.

(kg/m^2)	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**35**	**40**
Height (in.)	**Weight (lb.)**													
58	91	96	100	105	110	115	119	124	129	134	138	143	167	191
59	94	99	104	109	114	119	124	128	133	138	143	148	173	198
60	97	102	107	112	118	123	128	133	138	143	148	153	179	204
61	100	106	111	116	122	127	132	137	143	148	153	158	185	211
62	104	109	115	120	126	131	136	142	147	153	158	164	191	218
63	107	113	118	124	130	135	141	146	152	158	163	169	197	225
64	110	116	122	128	134	140	145	151	157	163	169	174	204	232
65	114	120	126	132	138	144	150	156	162	168	174	180	210	240
66	118	124	130	136	142	148	155	161	167	173	179	186	216	247
67	121	127	134	140	146	153	159	166	172	178	185	191	223	255
68	125	131	138	144	151	158	164	171	177	184	190	197	230	262
69	128	135	142	149	155	162	169	176	182	189	196	203	236	270
70	132	139	146	153	160	167	174	181	188	195	202	207	243	278
71	136	143	150	157	165	172	179	186	193	200	208	215	250	286
72	140	147	154	162	169	177	184	191	199	206	213	221	258	294
73	144	151	159	166	174	182	189	197	204	212	219	227	265	302

74	148	155	163	171	179	186	194	202	210	218	225	233	272	311
75	152	160	168	176	184	192	200	208	216	224	232	240	279	319
76	156	164	172	180	189	197	205	213	221	230	238	246	287	328

Body weight in pounds according to height and body mass index.

Adapted with permission from Bray, G.A., Gray, D.S.,
Obesity, Part I, Pathogenesis, West J. Med. 1988: 149: 429-41.

Risk of Associated Disease According to BMI and Waist Size			
BMI		Waist less than or equal to 40 in. (men) or 35 in. (women)	Waist greater than 40 in. (men) or 35 in. (women)
18.5 or less	Underweight	--	N/A
18.5 - 24.9	Normal	--	N/A
25.0 - 29.9	Overweight	Increased	High
30.0 - 34.9	Obese	High	Very High
35.0 - 39.9	Obese	Very High	Very High
40 or greater	Extremely Obese	Extremely High	Extremely High

The following survey of both Florida and California agencies indicates that most agencies are not addressing one the largest CVD factors, use of tobacco. Only two out of the twelve surveyed agencies had any policy that required new employees from being tobacco free. None had a policy prohibiting current employees from using tobacco.

In another aspect of a pro-active approach to CVD and wellness in general only two agencies indicated they had a required annual physicals one of those only required their specialty team members: hostage negotiators, divers, swat team members to have the annual physical. One agency required physicals every two years.

Agency	Smoking Pre Employment	Smoking Post Employment	Annual Physical Required	Annual Fitness Test	Scope of Fitness Test
State of Florida					
Broward County Sheriff's Office	None	None Restricted Clean Air Act	None	Voluntary	Cooper
Duval County Office of The Sheriff	None	None, Restricted Clean Air Act In Car or Public View	Yes, Paid for by Sheriff	Yes	FDLE, Wellness Program provided by contract service
Hillsborough County Sheriff's Office	Yes, Six month Tobacco Free	None, Restricted Clean Air Act In Car or Public View	None	Yes	FDLE, Optional FBI Yellow Brick Road Course
Miami-Dade Police Department	None	None, Restricted Clean Air Act	Yes, every two years, paid for by office	None	None
Orange County Sheriff's Office	None	None, Restricted Clean Air Act or in Patrol Car	None	None	Currently formulating a new program
Palm Beach County Sheriff's Office	Yes, Non Smokers Only	None, Restricted Clean Air Act In Car or Public View	None	Yes, Uncertified Only?	300 meter run 29 Trigger pulls 23 Pull ups 32 Sit ups
Pinellas County Sheriff's Office	Yes, Six month Tobacco Free	None, Restricted Clean Air Act	None	Yes, on Birthday	FDLE Course
Tampa Police Department	None	None, Restricted Clean Air Act Or Public view	None	Yes	FDLE Course
State of California					
Alameda County Sheriff's Office	None	None, Restricted in Office and Cars	Specialty Teams Only	Yes	Standard Agility Test
Los Angeles County Sheriff's Office	None	None, Restricted in Office and Cars	No	Yes	Height/Weight Restrictions Standard Agility Test

Riverside County Sheriff's Office	Yes, Non-Smokers Only, starts this year	None, Restricted in Office and Cars	No	Yes	Standard Agility Test
San Diego County Sheriff's Office	None	None, Restricted in Office and Cars	No	Yes	Standard Agility Test

Discussion

In reviewing the results of the survey, very few agencies are taking any steps to be pro-active in limiting their exposure to employees with a higher risk of CVD and even fewer are taking steps to diagnose problems early through physicals. Annual physical fitness test are common place but typically, do not require any real degree of fitness and do very little to combat CVD.

With the impact of the "Heart and Lung Bill" only now beginning to be felt in the State of Florida and therefore, it is difficult to speculate about the overall financial, operational, and procedural impact it will have in the long term.

We will examine policy changes and programs that agencies, based on my research, should implement to combat the risk factors and set the tone to promote a healthier work force.

The first policy which would be the least costly, easiest to implement, and most effect in the long term to fight CVD would be to adopt a "no tobacco use" polices for current employees and require applicants to be tobacco free for a period of time before employment.

Agencies should determine the level of fitness for each employee, and then establish an individual exercise program to help them obtain an acceptable level of fitness. To be most effective, the program would include a performance based incentive program. Emphasis should be placed on educating employees about and helping identify nutritional food options in the fast pace, fast food environment that they work. It is acknowledged that positive reinforcements can be successful. Yet, intrinsic motivation of the employee remains a key factor to a successful program (Peter & Waterman, 1982).

A final aspect of an agencies proactive approach to wellness should be spent in the preventive diagnosis spectrum. Agencies historically have taken this approach in maintaining their fleet of vehicles, but rarely employees themselves.

Agencies should require, as well as fund annual tiered physicals for each employee as the employee ages, the test should be more comprehensive with age. Employees over the age of 40 should receive a Nuclear EKG; the most comprehensive test of the heart available and is a "total test" of the heart. Individuals that receive a clean bill of heart health following this test have less than a 5 % chance of experiencing a heart attack in the next twelve months. The cost of the test is substantial (approximately $1500.00) however, the early diagnosis of a related CVD will result in substantial long-term savings, and more importantly may save the life a valued employee.

What is clear is that the risk factors for CVD are known, and that those factors can be addressed through behavioral changes for the most part. Law enforcement officers have a shorter life span than most people and are far more likely to experience and die from CVD during their lifetime than the average citizen. Hopefully, the final impact of the "Heart and Lung" bill will be to create an employment environment that finds it only prudent but economically rewarding to have healthy productive employees, who in turn are able to enjoy long and healthy retirements.

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