

STRESS AT THE WORKPLACE DURING RESIDENCY TRAINING

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ABSTRACT

Residency period during postgraduate training in medical profession is well known for physical and mental stress. There are many situational, professional, and personal sources of stress, which the author reviews: heavy work-load, sleep deprivation, difficult patients, poor learning environments, relocation issues, isolation and social problems, financial concerns, cultural issues, information overload, and career planning issues. Stress can also originate from gender-related issues and issues related to spouses and family members. The author also describes less commonly documented sources of stress, which is observed in residents who perform marginally and in some cases should not have been passed on from medical school, or who are studying specialties not compatible with their skills and personalities, or who foster severe interpersonal problems on the job. Common effects of stress include frequent absenteeism, minor health problems, anxiety, depression, obsessive compulsive trends, hostility, and alcohol and substance abuse. The author outlines essential elements of an assistance program, states how important such problems can be in saving both residents and their institutions needless difficulties and costs, and presents important issues for the consideration of all involved in residents' training. Purpose of this article is to provide an overview gathered from the extensive literature, of the various stressors resident face; and to discuss assistance to residents and make recommendations about the essential elements of an assistance program.

Keywords: Stress during residency, Residency training in medical profession

1. Introduction

Residency training is a difficult time of physical, emotional and financial stress. Each resident reacts differently depending on individuals coping up mechanism. The emotional and cognitive behavior disturbances that occur in residency have been well-documented. Residents report mood swings, appetite disturbances, depression, and increasing cynicism¹. They frequently report feeling burned out and admit that this emotional state affects the patient care they provide². Sleep deprivation is increasingly recognized as a cause of impairment and errors³. Every resident will experience some degree of impairment due to stress or sleep deprivation. In stressful situations, other residents and friends work as important support systems. Over half of the first and second year residents in a recent national survey reported that they had worked at least once during the past year while in an "impaired condition," ascribing it largely to sleep loss and overwork¹. Many studies have described the serious physical, psychological, and emotional consequences of prolonged sleep deprivation, fatigue, and stress during residency⁴. In one report, more than 30 percent of residents were

found to be clinically depressed during their first post-graduate year⁵.

1.1 Common causes of stress during residency-They fall into three categories: situational stress, personal stress, and professional stress. Situational stressors include inordinate hours, sleep deprivation, excessive work load, overbearing paper work, too many high risk patients and conditions for learning that are less than optimal. Personal stressors include family, who may be a source of support, but can also be a source of conflict and negative stress; financial issues, as many residents carry heavy educational debts, limited free time to relax or develop new support systems; psychosocial concerns, brought on by the stress of residency; and inadequate coping skills. Professional stressors include responsibility for patient care, supervision of more junior residents and students, difficult patients and problems, information overload, and career planning.

1.2 Stress level and its effects -Stress are a normal part of residency and can produce positive influence in the form of developing tolerance, self-confidence, and maturity. Stress also stimulates the acquisition of knowledge and skills. Articles over the last several decades have described the harsh reality that some level of

impairment to residents is a common and predictable sequel to the time they spend at traditionally "catastrophic levels of stress."^{6,7} Symptoms of responses to stress have been abundantly described in the literature documenting depression,⁸⁻¹⁰ burnout,¹¹ anger and irritability,¹² anxiety,¹³ and substance abuse.¹⁴⁻¹⁶ The possibility that medical training might augment and reinforce type A and obsessive-compulsive behaviors¹⁷ has even been raised. At what point along the continuum of stress does the level of a resident's experienced distress shift into the manifestation of impairment? "Impairment can be defined as a state wherein the resident's ability to care for self or others, particularly patients, is hampered because of stress, emotional illness, or substance abuse."¹⁸ Small¹⁹ described seven features of house-officer stress syndrome, four occurring in most residents and the remaining three being more suggestive of serious impairment. The four dimensions are episodic cognitive impairment (due primarily to sleep deprivation), chronic anger, pervasive cynicism, and family discord.

1.3 .Effects of severe stress during residency - Severe stress conditions are depression, suicidal ideation and suicidal behavior, and substance abuse.

1.3.1 Depression and suicide- Severe depression as a single dimension impairing a resident is hard to isolate and document with exact numbers. When suicide becomes part of the picture, statistics are available. A historical review of the literature reports overall physician suicide rates to be between 28 and 40 per 100,000.²⁰ Suicide rates of white men over 25 in the general population were reported to be 31 per 100,000,²¹ suggesting fairly similar rates. Differences reported historically between male and female residents were not that major either. The characteristics of residents that their research disclosed to be suicide risk factors were having an awareness of emotional problems and possibly seeking treatment; being in treatment; having a desire to escape mental pain; being depressed; having a history physical and mental health problems; having a history of drug abuse, including self-prescribing; having social problems related to alcohol; and having a difficult childhood and a troubled family of origin.

1.3.2 Substance abuse - Hughes *et al.*¹⁴ found alcohol was the most widely used substance accessed by all residents. Baldwin *et al.*²² compared medical students and physicians with the U.S. population at large and found that the

rate of heavy drinking of medical students and young physician (under 30) was one third that of the U.S. population at large. A family history of alcoholism appears to be the consistent predictive factor of alcoholism among both physicians and the general population.²³⁻²⁵ Additional factors cited as correlating with physicians' alcohol-related problems include a narcissistic personality style; perception of low parental warmth in childhood; and medical school when the medical working environment is one of sleep deprivation, heavy work demands, and inadequate social supports.²⁶

1.4 Other Sources and situations of Stress during residency

1.4.1 Sex differences - Women tend to report higher levels of stress reaction to residency than do men. Isolation and anxiety related to role stress,²⁷ loneliness and depression,²⁸ and problems balancing a family and a career^{29,30} are examples cited. Chadorow³¹ proposes that women tend to find definition through interpersonal relationships and attachments

1.4.2 Pregnancy during residency- As more and more number of females are opting for postgraduate studies, the number of pregnancies during residency is also increasing. Phelan³² studied sources of stress and support for pregnancy during residency training. Her study of 1,197 obstetrics-gynecology, psychiatry, and surgery residents found that 31% of the female physicians sampled had experienced pregnancy during residency. Fatigue from frequent call and long hours, too little time for the spouse or partner, too much physical activity, and emotional strain were found to be the sources of stress. Ninety percent of the women in the sample had worked until delivery or scheduled maternity leave. The first year of residency was regarded as the most stressful time to be pregnant. Uniformly, these women had used vacation, sick leave, or leave without pay to cover their missed time. Factors that detracted most from childbearing were too little sleep, problems arranging child care, and lack of support from the partner, faculty, and other residents.

1.4.3 Stress from residents' families. The requirements of marriage and family can bring additional pressures to an already overwhelmed individual. Other studies,^{33,34} however, have found that a spouse or partner was an important source of support in surviving the stresses of residency. Surveys have shown the divorce rate among residents is lower than the national rate,

but the amount of conflict, instability, and dissatisfaction is significantly higher. Certain specialties (i.e., orthopedic surgery, psychiatry) have much higher rates of divorce, and female physicians are reportedly much more prone to divorce than are male physicians.³⁵ Estimates suggest that two thirds or more of interns and residents are married,³⁶ indicating the need for training programs to recognize marital stressors as an important issue. Roy Menniger³⁵ contended that physicians work hard to prove their self-worth and take care of others, but have never learned how to have intimacy and receive support from others for themselves. A potential complicating factor is the emergence of the "dual-doctor marriage." An estimated 40,000 physicians in the U.S. are married to other physicians.³⁷ Advantages to such unions may include the ability to empathize, acceptance of sleep deprivation, and tolerance of frequent leisure-time interruptions. Disadvantages may include deciding who makes sacrifices for the other's career, how mundane chores are divided, and how to provide child care and still preserve time for the marital relationship.³⁸

1.4.4 Financial issues- Acquired student-loan debt is another significant pressure faced by residents.³⁹

1.4.5 Issues related to academic under performance, aptitude and behavior of the resident- There are some additional problems that are also common but less well documented. Some residents are deficient in areas as interpersonal skills, personality development, clinical skills, and academic performance, and also cultural issues. Regardless of their origins, these deficits and cultural issues inevitably give rise to significant stress to the residents who exhibit them.

a) The marginal performer - One not so uncommon problem is the resident who was acceptable, although somewhat marginal, in medical school. He or she was passed on, perhaps inappropriately, and entered a residency. It soon becomes evident to the guide that gaps are present in this individual's knowledge base and/or clinical judgment. These residents often are unable to decide what specialty to go into or are unable to match to a categorical position. Academic and clinical deficits become apparent, sometimes including spotty clinical judgment skills, although interpersonal or personality deficits may or may not be present. Sometimes these individuals will claim, after being identified as problematic, that they possess a diagnosed learning disability or have attention

deficit disorder. It is best to ask all applicants before admission if any such problems exist. If they are claimed, the institution must show efforts to accommodate residents with such learning disorders to assure that the residents have every chance to succeed. However, once such a resident is accommodated, he or she must successfully meet the essential requirements and standards of the program to complete the residency.

b) The mismatched subject choice for post graduation- Another not uncommon type of resident is the individual, who ends up in some specialty program for which he or she is not well suited. Obstetrics and Gynecology is a common example. Some individuals who gravitate to this branch have strong academic records, but may lack mechanical and spatial-relationship skills, as well as the personality best suited to the unrelenting schedule required by obstetrician.

c) The disruptive, unruly resident. Some residents who are competent academically are the source for trouble and disruption and bad example for others. They have an uncanny ability to upset attendings, fellow residents, nurses, other staff, and even patients and their families. Some have problems getting along with authority; some annoy persons of the opposite sex; some will not answer their cellphones. Because their clinical competency appears to be acceptable, or even good, the problem behaviors are ignored, or poorly documented until a critical mass of dissatisfaction finally moves faculty to decide that some action must be taken.

1.5 Recommendations for an effective residents' assistance program -In view of the several sources of stress that can affect residents, there are several recommendations to assure the viability and effectiveness of programs that medical schools and/or teaching hospitals may design to assist residents in coping with stress.

1.5.1 Characteristics and Responsibilities of the Director- The director of an institution's residents' assistance program should be a well-trained clinician with a strong background in and knowledge of residents' needs and vulnerabilities, as well as of the issues involved in residency training.

1.5.2 Guidelines for Residency Assistance Program

a) Periodic Assessment should be among the clinical services offered by the program, and should consist of interviews, but may also include psychological testing. It would be

valuable for clarifying why a resident isn't performing, or for ruling out the presence of depression, substance abuse, or problems in thinking.

b) Counselling should be available to the resident and his or her family members especially when problems appear to be more complicated (i.e., serious psychopathology, substance abuse, complex marital problems).

c) Follow-up services should be offered by the residents' assistance program for as long as needed. Some residents need periodic support. Others require monitoring.

d) Referral. Voluntary referral by the resident is always the preferred method. But supervisory (i.e., non-voluntary) referral often occurs in cases of disciplinary action and/or suspected substance abuse or serious emotional impairment. Problems with authority, interpersonal skill deficiencies, failure to acquire knowledge and practice skills, to cite examples, may lead to action on the part of the residency director.

e) Confidentiality is preferred, when possible, and should be seriously maintained. In cases where confidentiality must be limited, only the most pertinent information should be shared on a need-to-know basis with the key person(s) involved. *All records* should be kept confidential in a locked file in a non-centralized location that should be accessible only to the director of the assistance program.

2. Conclusion

Residency is the most stressful period in medical profession. Residents must choose the speciality as per their interest and ability. Positive frame of mind and preparedness to do hard work can help them to cope up with the stressful situations. Hard work done and the sleepless nights spent during residency will pay the dividends in long run. A successful residents' assistance program reduces stress for the resident and his or her family or significant other; facilitates an optimal environment for professional growth and long-term well-being; facilitates successful conflict resolution; and assures the protection and safety of patients.

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