
M. Nicholas Coppola, Ph.D, MHA, FACHE
Lieutenant Colonel, US Army, Medical Service
Assistant Professor, U.S. Army-Baylor University Graduate Program in Health Care Administration, Dept of Health Administration
e-mail: NickCoppola@amedd.army.mil

Mark L. Diana, MBA, MSIS
Instructor, Department of Health Administration
Medical College of Virginia Campus
Virginia Commonwealth University
e-mail: mldiana@vcu.edu

Bernard J. Kerr, Jr., Ed.D, MHA, FACHE
Associate Professor
Central Michigan University
Doctor of Health Administration Program
e-mail: kerrjlb@cmich.edu

ABSTRACT
This essay highlights the findings of a two tiered, three year evaluation. The first tier studied human resource and quality management initiatives at Walter Reed Army Medical Center (WRAMC) Washington, DC from 1992-1994. The second tier researched disability records through the United States Army Physical Disability Agency, Bethesda, Maryland in 1996. The first tier found that Total Quality Management reduced the average length of stay (ALOS) and size of the disability population from 220 days and 240 disability cases to 65 days and 57 disability cases over 24 months. The second tier studied 8,301 soldiers whose disability records were processed in Fiscal Year 1996. The research shows only administrative variables affect ALOS. The authors recommend a program of disability case management and increasing emphasis on transition assistance programs to reduce ALOS in the PDES.

Keywords: Human Resources, Quality Management, Disability.

INTRODUCTION
The purpose of this research is to identify variables affecting processing and adjudication duration in the United States Army Physical Disability Evaluation System (PDES). This type of research has never been performed on any service within the Department of Defense before this research initiative. As a result, it is the intent of the authors to educate human resource managers on the disability processing system and to recommend avenues to decrease average length of stay (ALOS) in the system. The PDES must be addressed in this era of limited personnel and financial resources within the Department of Defense in order to save health care resources. Clearly, the importance of minimizing the length of time required to determine whether a soldier is fit for retention on active duty cannot be overemphasized. Any event that removes a soldier from worldwide deployability but maintains the soldier on active duty in a non-deployable condition adversely affects the overall readiness of the Army as well as cost containment [1].

Despite civilian success stories associated with reducing ALOS through the human resource environment [2], the military model of disability processing may often perceive duration of medical treatment as a metric for determining quality of care [3-5]. As a result, some physicians and administrators may be wary of aggressive discharge planning processes that can shorten days in the disability processing system for some patients[6, 7]. Due to this trend, disability processing and soldier ALOS in the compensation system has remained a relatively low level issue to the U.S. Army Personnel Command and the human resources community for several years.

SCOPE
Since 1990, the United States Army Physical Disability Agency (USAPDA) has processed and adjudicated over 80,000 soldier disability cases with an average length of stay of 180 days [6]. From 1992-1994 and during Operation Desert Storm (ODS), the peak disability population was approximately 12,000 soldiers. The years before and post ODS have seen the disability population averaging 8,000 soldiers. Simultaneously during these past several years, the Army has shrunk from 780,000 troops and 18 combat divisions to 495,000 soldiers in ten combat divisions. Although the active Army strength has continued to downsize, the disability population has remained relatively consistent at 8,000 personnel causing a greater impact on readiness and deployable soldiers [6].

Optimizing the quality and efficiency of the PDES will increase military readiness, improve patient care, and decrease the cost associated with delays in the disability processing of military service members. Human resource managers and the medical treatment facility staff must ensure the timely disability processing of soldiers under their supervision in this era of limited personnel and fiscal resources [8].
BACKGROUND

Chapter 61, Title 10, US Code authorizes the Secretaries of the Military to retire or discharge a member if he or she finds the member unfit to perform duties due to a disability. The USAPDA, under the operational control of the Commander, Personnel Command, is responsible for operating the PDES and executes Secretary of the Army decision-making authority.

The PDES is composed of three separate elements: The Medical Evaluation Board (MEB), the Physical Evaluation Board (PEB) and the final reviewing and adjudicating authority, the USAPDA [9-12]. MEBs are conducted at the local medical facility, forwarded to a Regional PEB, and centrally processed at the USAPDA, Bethesda, Maryland. There are three Regional PEBs in the Army located at Fort Sam Houston, San Antonio, Texas, Fort Lewis, Washington, and Walter Reed Army Medical Center, Washington, DC.

THE PDES IN BRIEF

The MEB is completed by at least two physicians and an approving authority that have expertise in the medical condition affecting the soldier. The MEB is completed at the local medical treatment facility. The physicians complete DA Form 3947, (Medical Evaluation Board Proceedings) and a brief but complete clinical history of the patient’s medical status referred to as the NARSUM, or Narrative Summary. These forms comprise the MEB dictation.

The PEB is composed of designated board members who adjudicate cases equally irrespective of rank. Evaluation is by a three-member board composed of a President, a personnel management officer, and a physician who may be civilian or military of any rank. Additionally, the PEB reviews MEBs informally and formally. At the Informal PEB, only the soldier’s MEB record appears before the board. If the soldier does not concur with the finding of the Informal PEB, the soldier can request a Formal PEB and appear before the board president. After final review by one of the three Regional PEBs, the soldier’s record is forwarded to the centralized USAPDA for final medical/administrative review.

There is no single organizational structure for the reviewers of PEBs in the USAPDA. Historically, the reviewers in the USAPDA consist of at least three personnel: a physician, a lawyer and a field grade officer of any branch. Upon satisfactory review of the soldier’s record and affirmation of the Regional PEBs adjudication, the USAPDA makes the final fitness determination and compensation award and forwards its results to the Commander, Personnel Command. The soldier’s status is then changed from a patient undergoing disability review to an Active Duty Soldier or separated classification. Soldiers who feel they were separated wrongfully have the right to appeal their case to the Board of Correction of Military Records after discharge.

FINANCIAL IMPACT OF PROTRACTED DISABILITY PROCESSING

A 1989 audit of the PDES by the United States Army Audit Agency (USAAA) found that delays in processing disability cases cost the Army $450,000 day [13]. A follow-up audit by the USAAA in 1994 discovered there had been little or no improvement in human resource or business focus behavior in the system in the preceding five years [14]. There is a significant financial expense to the government and to our military hospitals, which results from the implementation of a poorly managed human resource and disability review system.

Furthermore, a recent trend mandating improved efficiencies in the United States federal government human resource sector created a climate fostering an evolution in healthcare delivery within the Department of Defense. The National Defense Authorization Act of 1993 directed the Department of Defense to implement a program modeled on Health Maintenance Organization (HMO) plans. HMOs employ efficient human resource and management practices which improve quality and access to healthcare while concurrently decreasing human resource and medical costs. Additionally, according to the General Accounting Office, the United States Military Health Services System (MHSS) is responsible for providing health benefits to more than 8.3 million people at an annual cost of about $15 billion. In 1995, roughly 24 percent of the MHSS budget was used to fund the Department of Defense Civilian Health and Medical Program for the Uniformed Services (CHAMPUS). CHAMPUS provides a means for non-active duty beneficiaries who are eligible for healthcare to obtain medical services from private sector healthcare providers. CHAMPUS is comparable to private-sector indemnity health benefits plans, requiring beneficiaries to pay for care up to an annual deductible amount, and then pay a portion of the remaining costs; however, beneficiaries are not required to pay premiums for CHAMPUS [15]. As a result, if the MHSS continues to downsize while the beneficiary base continues to increase, more scarce health care and human resources will have to be reallocated toward compensation programs and the non-active duty population disproportionately. This may have an impact on military readiness and the active duty population. Decreasing ALOS in the disability process might be one way to conserve financial, human and health care resources.

LITERATURE REVIEW

There is limited research concerning variables affecting ALOS of soldiers undergoing compensatory review in the military. Over the last few decades, Congress has commissioned several studies to determine the amount of pay awarded to soldiers upon satisfactory completion of disability review [16]. However, little research has been done to determine variables affecting ALOS in the PDES and to determine the cost of disability processing in the Army.

Many civilian beneficiary organizations utilize Sullivan’s (1996) metric for attributing costs to disability processing [17]. This metric states that the full cost of disability when examining the direct, indirect and human resource disability management costs equate to 8 percent of the claimants total salary over the term of disability duration.

Additionally, several authors recognize there is a difference between the behavioral and medical model of disability [18, 19]. With a continued trend toward managed care in America, somatization; the reporting of somatic symptoms with no pathophysiological explanation, has become more problematic as patients exaggerate symptoms in order to ensure care or compensation [20]. Somatization may increase disability duration by causing physicians to refer patients for special
or additional screening during the beneficiary process due to the lack of clinical evidence of pathology [21]. This further ties up the personnel in the human resource pool available to the facility if evidence of pathology is difficult to validate.

One example of this was seen with soldiers being evaluated for Gulf War Illness. Due to personnel shortages in the USAF, President Clinton signed into law the “Veterans Administration Benefits Improvement Act.” This act makes it possible for veterans to be compensated for undiagnosed illnesses or injuries that may be related to service in the Persian Gulf Region [3]. Because of these modifications to the disability system, 562 of the original 11,000 soldiers who filed claims for service connected disability for undiagnosed illnesses or injuries have been compensated as of 30 December 1996 [3]. These soldiers may have otherwise remained in the PDES in a lengthy and protracted processing cycle.

**RESEARCH METHODOLOGY**

This essay highlights the findings of a two tiered, three-year evaluation. The first tier studied the human resource environment and quality management initiatives of the disability processing system at Walter Reed Army Medical Center (WRAMC) Washington, DC from 1992-1994. The second tier researched disability records through the United States Army Physical Disability Agency, Bethesda, Maryland in 1996. The subjects of both tiers are Army soldiers whose continued service has been called into question through inadequate duty performance or medical impairment.

The first tier of the research involved validation of human resource and beneficiary processing protocols. Investigative tools included the Delphi Technique, semantic differential and utilization review by WRAMC new formed Patient Management Team. Over 1,000 subjects were reviewed over a twenty-four month period while undergoing disability processing through the medical holding unit of WRAMC.

The 1996 follow-on tier surveys all records (N=8,301) processed successfully in the USAF in FY 96. This research reviewed administrative, claimant and demographic variables. These records represented cases in more than forty Army medical treatment facilities (MTFs) and three Regional PEBs. This research tier employed linear regression and correlation analysis of Pearsons’s r with a confidence interval of 95 percent, α = 0.05. Independent variables included: Age, Component, Compensation Award, Congressional Involvement, Gender, Grade, Retirement Eligibility, Race, Length of Service, Formal PEB and Regional PEB. Content and criterion standards are utilized to determine the scientific reliability and validity of this tiers study [22]. Data were collected through the USAF database located at the Headquarters, USAF, Bethesda, Maryland. The dependent variable (days in PDES) is calculated by determining the difference between the day the soldier received their physical exam at the medical facility and the effective date of disposition orders that medically retired or returned the soldier to duty.

**RESULTS**

The first tier of the research found that identification of critical pathways and application of Total Quality Management (TQM) techniques reduced the ALOS and size of the disability population from 220 days and 240 disability cases to 65 days and 57 disability cases over 24 months [23]. As a result, bed occupied days for the entire facility dropped by 23 percent resulting in a significant recapture and reprogramming of scarce human and health care resources [24, 25].

The statistical research in the second tier of the study revealed the most significant variables affecting an increase in the ALOS include: Compensation, Formal PEB, Congressional’s, Regional PEB, and Component. The ALOS for the FY 96 population was 155 days with a range of one to 2,052 days. Two cases exceeded 2000 days while eleven cases exceeded 1000 days. Three hundred and forty-four cases exceeded one year. Processing times for more than forty PDES-processing medical facilities yielded a range of twenty-three to 115 days ALOS. The research suggests the statistical methodology was sound based on a final significant F-Test, p < 0.00005.

**1992-1994: Tier One Discussion**

The USAF (1989, 1994) found that, “some soldiers seemed to deliberately delay the processing of their cases.” Additionally, the first tier of the research at WRAMC in 1994 found that some soldiers did engage in delaying tactics, which increased beneficiary processing.

This behavior in the military community health care setting may not be uncommon. A 1997 survey of 1,324 employees by the American Society of Chartered Life Underwriters & Chartered Financial Consultants found that 48 percent of all U.S. workers admit to taking unethical or illegal actions at least once in the last twelve months. The study cited the motivation behind the unethical actions were related to job insecurity, personal debt, company politics and long hours, among others [26].

Who is in charge of tracking patient misbehavior or on keeping metrics of soldiers who may be abusing the personnel and medical system for personal gain in the military disability processing system? The first tier of the research suggests no one is.

The first tier of the study also found that the incidence and duration of becoming a disability beneficiary increased when the prospect of favorable or dedicated employment was not available to the soldier. A test of this hypothesis was applied to a random sample of convenience (n = 41) of Active Duty soldiers in various medical status undergoing disability review in the Washington metro area. The results revealed beneficiaries with a variety of derogatory factors, which may influence individual patient behavior patterns. Ten soldiers had pending, or had already received, adverse administrative, disciplinary actions, or were non-selected for promotion to the next highest grade [6]. All of these factors could prevent a successful twenty-year military career and deny the soldier permanent retirement benefits.

Additionally, the 1994 tier analyzed a second random sample of forty-two records in the WRAMC PEB Region. The analysis revealed a large gap in a group of physicians completing timely MEB dictations [24]. MEB dictations should be completed in ten working days upon receipt of all clinical information [27]. However, it was found that some physicians were taking an inordinate amount of time to complete these dictations. Some MEBs were taking upwards of three months to complete despite the completion of all the medical and administrative actions. Factors influencing this ranged from lack of patient management education to apathy with the system.
Finally, the USAAA [13, 14] and this research has shown that the human resource sector is acting as an enabler and fostering an environment where quality management paradigms which shorten disability ALOS and track the timely processing of patients are viewed as obstacles to quality care. The research suggests that it is not "politically correct" to expedite the processing of soldiers being evaluated for compensatory injury or illness through the human resource and PDES. As a result, soldiers in the PDES often self-manage their rate of progress through the processing system, causing delays of several months to a year [13, 14, 28]. This finding is in direct contrast to human resource paradigms already established in surgical wards in the same facility, where ALOS, appointments, and physician follow-up was closely monitored and reviewed regularly. Furthermore, such follow-up was often mandated by national standards of care such as the Joint Commission for the Accreditation of Health Care Organizations (JCAHO). However, this practice was not extended to the human resource sector of the disability management program.

As a result, the local medical holding unit of WRAMC self-directed a program that resulted in a significant decrease in the ALOS along the entire system. However, other Army PDES-processing medical facilities continue to maintain a relaxed posture when it comes to disability processing and human resource management initiatives. Why might this be the case?

The fault might remain in the human resource community. According to Kongstvedt [29] when treating and counseling injured workers (or soldiers), the human resource community must understand the concepts of entitlement and secondary gain. The injured worker, protected by law in many cases, generally feels entitled to benefits. This perspective can inflate workers' compensation medical costs when workers demand excessive medical services and delay their return to work as long as possible. Although most workers (85 percent) do not respond to an injury this way, the 15 percent who do account for a disproportionate share of the disability cost and contribute to increasing ALOS in the system [29, 30]. As a result, the research suggests that the military human resource community may not understand the changing economic incentives that motivate soldiers once they are in the PDES, and that he personnel and medical community do not realize the potential cost savings and benefit of implementing case management programs which will ultimately reduce disability ALOS.

1996: Tier Two Discussion

In the second tier research, through examination of 8,301 disability records, the ultimate compensation award granted to soldiers upon conclusion of disability processing proved to be significant with ALOS. Increases in processing time may be related to the degree and complexity of the medical condition. Soldiers having lifetime benefits awarded averaged two or more Veterans Schedule for Rating Disabilities codes when compared to those soldiers who were found fit for duty or separated without benefits.

One of the independent variables which lends itself to further human resource and administrative investigation is the operation of the Regional PEBs. The Fort Lewis, Washington, PEB has an average processing time of 131 days as compared to 155 days at the Fort Sam Houston, PEB and 179 days at the WRAMC, PEB. Explanation of the variance may be a result of specialty care in the Washington metro area which is not a factor affecting the other Regional PEBs. Cases being processed at the WRAMC PEB may involve higher medical and administrative complexity and require longer periods of time to review. The variation in duration may also be explained through different levels of attention to human resource and disability management initiatives.

Soldiers who requested a formal medical review board averaged 230 days in the disability system as compared to 137 days for those soldiers who did not. This ninety-three day increase in time may be explained by standard operating human resource procedures because they are requested by the soldier and scheduled by the President of the Regional PEB. The average time between requesting and receiving a Formal PEB is thirty-six days with a range of one through 128 days. Delays in scheduling and receiving Formal PEBs are the result of both seasonal and intermittent occurrences such as. The research suggests that increased attention to Formal Board scheduling by the local PEB can cut the maximum observed 128 day time delay in half.

The 1996 second tier research suggests that complaints to political representatives can be interpreted in only one way, and that is the soldier is disgruntled with one or more aspects of processing in the PDES. In investigating the impact of Congressional complaints on PDES in 1996, it was discovered that the USAPDA received 350 letters from members of the Senate, House of Representatives or White House in FY 96 requesting additional review. This amount included 148 letters pertaining to completed disability cases in FY 96. The remaining letters pertain to ongoing cases or cases processed earlier than FY 96.

The majority of the requests for Congressional assistance involved individual soldier perceptions of unfair persecution and distress over the ultimate Compensation Award. Very few of the Requests for Congressional assistance included soldier dissatisfaction with the duration of disability processing or the quality of care received.

No other category offered more unexplained evidence of an increased ALOS in the PDES than Requesting Congressional assistance. Very few of the requests resulted in additional medical review or board actions. However, the average difference between processing time for a soldier who requested Congressional review and one who did not is eighty-one days. The overall number of soldiers requesting Congressional review is relatively small and represents only 1.8 percent of the total population. However, few medical facilities in the Army currently have a designated program to specially follow soldiers in this category despite the evidence of a near-three-month increase in processing. Given the finding from the USAAA [13, 14] that delays in processing cases cost the Army $450,000 a day, attention should be paid to this population sample.

A soldier’s Component (Active Duty/Other Than Active Duty) contributed slightly to processing time. OTAD personnel averaged 186 days in the system as compared to 151 days for Active Duty personnel. This gap may be a result of additional constraints that are placed upon OTAD personnel. Such constraints may involve increased travel to and from the local military medical facility, full time civilian employment considerations, or some other form of individual soldier self-activism. Further, many OTAD soldiers must receive authorization from the National Guard or Army Re-
serve Bureau before entering into the PDES. This procedure may often take several weeks. However, civilian studies show that personnel who received pay during compensation processing have longer periods of disability than those personnel who do not receive pay [29, 31, 32].

OTAD soldiers being processed through the PDES may continue to draw full pay and allowances commensurate with their Active Duty counterparts if the injury occurred while on Active Duty. This same injury may hinder soldiers from returning to their civilian jobs and maintaining their livelihood. This is an event the human resource manager must understand when processing these types of cases and soldiers in their local facility.

Finally, the study revealed only 89 percent of all cases processed in the PDES met a 1995 joint understanding between the Army Medical Command and Personnel Command to complete the MEB within fifty days. Furthermore, only 63 percent of the cases met Department of Defense guidance for completion within ninety days after the final MEB had been processed [6]. Analysis of the MTFs in the three Regional PEBs reveals average processing times as low as 23 days for Bassett Army Hospital and a high of 115 days for Patterson Army Hospital. Medical holding units range in size from over 300 personnel undergoing disability review at Fort Campbell, Kentucky to lows of 10 personnel at West Point, New York.

There is no central management agency whose responsibility it is to track protracted disability ALOS between facilities. The research suggests that once benchmarks have been established for ALOS in regional personnel and medical commands, it may become easy for regional commanders to conduct a "peer review" of local medical holding units to determine which organizations may require additional support and guidance. This peer review may allow commanders to share human resource best practice information on decreasing ALOS. Several studies have shown that when ALOS's are monitored, reported, and peer reviewed, the incidence of protracted ALOS decreases [7].

Success Stories Resulting in Decreasing ALOS

In the civilian human resource sector, a study of workers' compensation in Florida found that even the most modest human resource strategies can have a dramatic impact on decreasing ALOS and costs. One study showed that, compared with a control group, workers covered by one organization had a duration of disability averaging 44 percent shorter than those organizations with no human resource program [30].

As far as the military model of disability processing is concerned, since 1992 several working groups have addressed the issue with decreasing ALOS in the military PDES. This has resulted in a decrease in the annual ALOS from 220 days to 150 days [6]. However, the system can still be improved in several ways. The first tier of this research found that the ALOS could be reduced from 220 days to 65 days through initiatives in TQM and case management [23]. Additionally, analysis of Army PDES-processing medical facilities in the three Regional PEBs in 1996 reveals average processing times varying by over three months between facilities. Clearly, there are wide variances in human resource and management initiatives at the local level, which can be addressed by the human resource manager.

RECOMMENDATIONS

The findings of both tiers of research show the current human resource structure and process of the PDES model do not produce the same outcome for soldiers with similar conditions each time. Therefore, a systems oriented approach to disability management applying TQM principles is recommended to decrease the processing time of the entire system. These actions may be implemented within a year and do not require dramatic reengineering or cost increases.

The USAAA [13, 14] research and the literature review suggests that lack of human resource initiatives targeted at the claimant and organizational level are a leading cause of protracted disability processing. Therefore, each PDES-processing medical facility should establish a locally implemented Patient Management Team (PMT) for achieving integrated disability management within the facility. Personnel on the PMT should include representatives from the local medical holding unit, Physical Evaluation Board Liaison Office, Patient Administration, Personnel, Patient Representative, a clinical representative and the Inspector General’s office. The PMT should meet on a weekly basis and concentrate efforts on those personnel who have exceeded the average PDES duration for that particular facility. Additional discussion items should incorporate the tenets of concurrent review, disability case management, and retrospective review. Furthermore, critical pathways and standard PDES protocols should be developed locally in each facility. Presentation of locally developed protocols should be made to the commander of each facility. Furthermore, disability case managers (DCMs) should be assigned to patients whose appointment history and medical progress is less than predictable as compared with patients occupying similar points in space in the same facility.

Lastly, research suggests that soldiers who are weary of beginning a civilian career or of being medically retired may be hesitant in departing the local medical holding unit in the medical treatment facility [33]. As a result, emphasis must be placed on those transition assistance programs that can help facilitate a smoother career changeover or retirement opportunity for the departing soldier. These incentives will encourage the soldier to move on to a new life and career. Such activities can be coordinated through the newly established DCM and PMT in the local facility at little expense while achieving a high value for departing soldier.

SUMMARY

In summary, one of the strengths and benefits of this study is in the elimination of stereotypical assumptions normally associated with PDES processing. There is no significant difference in processing duration concerning Gender, Race, Age, Grade, Eligibility to Retire and Length of Service. Overall, the system is remarkably fair and unbiased. This finding is a credit to all personnel associated with the PDES in the human resource community. The research finding is especially significant given the media’s repeated accusation of racial and gender bias within our ranks.

Variables which may extend a soldier’s ALOS include: Component, Formal PEB, Congressional’s, Compensation, Regional PEB and lack of human resource programs in the local facility. Recommendations to reduce PDES processing and ALOS include taking corrective actions at the local as well as
headquarters levels through establishment of a Disability Case Manager and Patient Management Team. One example of a success story in decreasing disability processing days through implementation of the aforementioned human resource programs is at WRAMC, Washington, DC. WRAMC reduced its ALOS of soldiers undergoing disability review from 220 days to 65 days over a two-year period from May 1992 through June 1994 by establishing programs in Disability Case Management and a Patient Management Team [23]. Neither of the recommendations proved to be time consuming nor expensive to implement. The result was an improved physical disability evaluation system, which had a positive impact on decreasing ALOS at WRAMC. This same program can be exported throughout the Army human resource sector potentially recapturing and reprogramming hundreds of thousands in scarce personnel and fiscal resources.


