

## From a Clinical Engineering Perspective...

# Understanding Motivation and Employee Satisfaction

Ed Snyder, BS, CBET, and Margy Grasberger, MS

**Y**our hospital needs someone to start a support team that will manage, and later maintain, a new PACS installation. Your staff clinical engineer would really like this job, but she has no networking or information systems skills. She knows that she is becoming less marketable without such skills and by acquiring them, would become more valuable to the hospital. If you help her acquire the requisite training, the employee and employer both win.

Sound familiar? If not, it soon will if you continue in the biomedical field. Technological details aside, the scene is a lesson in motivation. Let's explore what motivates BMETs and clinical engineers (CE), and what brings about job satisfaction in the biomedical world.

### Introduction

Classic research on motivation and job satisfaction tells us that people are satisfied with their jobs to the degree that the job meets their needs—and they are motivated to work to fill their current mix of needs. *But you knew that.*

In this article we're going to cover some basic concepts of motivation and job satisfaction, and see how they apply to the biomedical world. We'll also see why a manager's active participation is necessary to the process. Though the conditions under which we work have changed drastically since the 1970s, people are still motivated to excel because of certain intrinsic needs: achievement, self-development, appreciation of effort, meaning found in the work, recognition, power, etc. These were true 30 years ago and will most likely be true 30 years hence. The challenge for managers, as Porter Henry<sup>1</sup> puts it, is that "...no two people are motivated in exactly the same way, and within one individual motivation may vary from time to time."

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### Three Steps

A manager's goal should be to help people find satisfaction in their work, to the mutual benefit of the employer and the employee. We can map this process to three consecutive steps: 1) observe and understand your employees' needs; 2) strategically design the work environment to allow them to do what they do best; and 3) facilitate (actively manage) the process.

### Step One: Understanding Motivation

When we pop the hood on motivation, what do we find? That you can't "motivate" anyone—motivation comes from within. People's behavior is motivated by common, basic needs. These needs vary in degree with gender, generation, culture, maturity, and other life circumstances. If appropriately structured, a person's job can help meet these needs, which leads to job satisfaction.

Let's look at an example. Many people have a deep-seated psychological need to have control over things. They live for the weekend because they have control over that part of their lives. If you allow them to have greater control over what they do at work, their need is met at work—they will more actively engage themselves in it, rather than just do as they're told.

Your BMETs may be perfectly content with their jobs—but you as their manager may not be content with their performance. Nine-to-fivers, for example, may not be motivated to stretch, develop, or grow their job responsibilities as you would like them to. This is where *knowing* your employees well (as people, not 'resources') can help you understand what motivates them to meet their needs. Then if you can find a way to structure the environment so their activities simultaneously meet the needs of the employer, you're golden. Sound intimidating? Well, Eleanor Roosevelt said to do something every day that scares you.

Given basic human behavior, there appear to be more factors common to BMETs' and CEs' motivation than there are factors that differentiate the two. The popularly held difference between the two professional groups

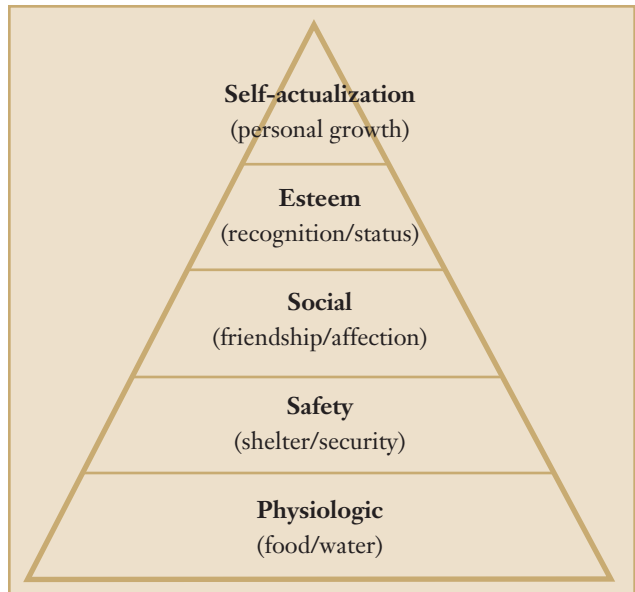
seems to be that BMETs aspire to more technical challenges with instrumentation while CEs aspire to more managerial or project-oriented challenges (e.g. R&D or product evaluation). Still, both groups likely got into the business because they are more comfortable with physical science than social science.

Based on these observations, it's likely the average CE would be more comfortable with ambiguity, long time lines, and broad-scale issues than the average BMET. BMETs like to fix things, to measure and document quantifiable values. CEs like databases, trends, turning data into knowledge. Not everyone is comfortable tucked under the bell curve, however. Some managers get much more satisfaction from short-duration jobs that have definite beginnings and ends (which unfortunately describes few areas of management).

**Hooked on the Classics**

Abraham Maslow's *Hierarchy of Needs*<sup>2</sup> (though more pop culture than proven theory) makes it easy to understand what motivates us, why our motivation changes, and why different people's motivation manifests itself in different ways. Essentially, as people satisfy a lower need, they are motivated to satisfy the next highest one (Figure 1). You're reading this article partly because you feel safe in whatever environment you now find yourself in, but also because I complimented your ego. By saying "...but you knew that" in this article's introduction, I conveyed recognition of your status that sparked your internal motivation to continue reading.

So now let's look at how Maslow's *Hierarchy* applies to BMETs and clinical engineers. Keep our CE example in mind as you peruse Figure 2—did she always want to support PACS technology? No. Is her job security threatened by her lack of information systems skills? Probably. Read the real-world biomedical examples in Figure 2 and see how neatly the CE fits into Maslow's framework. Now for a brief dimming of the lights—since you can't "motivate" people to do anything, how does a manager get people to do their jobs? If you offer them a goal they desire, they will be motivated to achieve it. Researcher Alfie Kohn, in his 1993 book *Punished by Rewards: The Trouble with Gold Stars, Incentive Plans, As, Praise, and Other Bribes*, argues strongly that managers need to understand intrinsic motivation.<sup>3</sup> Only then should the manager focus on job performance issues. Let's consider this the first of three steps in our understanding of how we can improve job performance through job satisfaction.



**Figure 1. Maslow's Hierarchy of Needs<sup>2</sup>**

**Self-actualization**  
Be all that you can be. Getting that promotion, or being happy just the way you are!

**Esteem**  
You've become the "go-to" guy for tough troubleshooting problems or your boss has recognized your stellar negotiating abilities and has asked you to take on the role of contract manager.

**Social**  
Talking shop with your peers at the AAMI Annual Conference generates a feeling of camaraderie.

**Safety**  
As your employer heads into the next rounds of layoffs, you're wondering if your skills are still marketable.

**Physiological**  
When asked to write this article about motivation, I thought: "How could I possibly stretch the phrase 'Free Food' into 1,500 words?" Seriously, I have seen free food work wonders—it meets a variety of needs. Helping people meet this physiological need allows them to concentrate on higher levels of the pyramid. Free food can easily meet three of Maslow's five needs—Can you pick which ones? (Answers at end of article).

**Figure 2. Maslow's Framework Applied to the Biomedical World**

### Step Two: Strategizing for Job Satisfaction

Do you care that the CE in our example is uncomfortable with not having information systems skills? You should be. If she feels her livelihood is threatened, she's not likely to perform her job well. She's worried about low-level needs, not high level ones. It becomes clear, then, how job performance is affected by how well needs are met. Job satisfaction, in turn, influences motivation. Only after employees fill their most basic needs, will they become actively engaged in pursuing higher ones.

What you notice depends on who you are. Frederick Herzberg noticed the close ties between motivation, job satisfaction, and job performance when he studied the behavior of engineers and accountants. His Motivator-Hygiene Theory<sup>4</sup> is his answer to the oft-posed question: "How do I get an employee to do what I want him to do?" Obviously, the answer isn't as simple as "Pay him."

Herzberg's theory (which is really an expansion and clarification of Maslow's work) identifies certain motivator needs that produce job satisfaction and hygiene needs that produce job *dissatisfaction*. If you'd rather, you can think of them as 'self-enhancement' and 'self-protection' needs, as Abraham Korman<sup>5</sup> does in "Work Motivation in the Context of a Globalizing Economy."

Motivator or self-enhancement needs (see Figure 3) stimulate employees to perform at their best and foster a positive attitude toward the job.

Hygiene, or self-protection needs (Figure 4), are lower-level needs related to maintenance and health. They are *external* to the job itself.

When self-protection needs go unmet, job *dissatisfaction* results. But when they *are* met, the result is not job *satisfaction*—merely an absence of dissatisfaction.

#### Leads to Satisfaction

- Achievement** – attain a higher degree
- Recognition** – your input as a member of the Safety Committee is valued
- Work itself** – a job well done is not enough; the job must have perceived value
- Responsibility** – we trust you to be on-call
- Advancement** – promoted to Team Leader, based on various competencies
- Growth** – developing IS skills to meet new organization expectations

Figure 3. Self-Enhancement Needs

They are *not* motivators! Following this line of thinking, it's easy to see why picking apart a field service technician's expense report will cause him to lose motivation, but increasing the mileage reimbursement provides little stimulation for him to be a stellar performer.

Though our CE example appeared to have no messy build-up, the scenario may have taken years to play out. A huge challenge in effectively managing such a scenario is being conscious of the lengthy time lag between stimulus and resultant behavioral change. Because of this, it's very difficult to detect patterns in human behavior. Though the business of health care seems to change at video game speeds, peoples' behavior typically changes at a glacial pace. Since many managers don't have the patience or time to learn this, they get frustrated when there is no instant improvement. This may be one reason money is perceived to be a powerful motivator—the manager sees the instant gratification it provides but doesn't associate it with the fact that motivation returns to the prior level by the next paycheck.

### Step Three: Facilitating Success

Okay, so we have our minds wrapped around motivation and we see how much it affects job satisfaction. But what are we as managers really concerned with here? The answer: balancing both job satisfaction and job performance in order to get people to perform at their best. Now we're ready to strategize—the third step to improving job performance through job satisfaction.

#### Leads to Dissatisfaction

- Company Policy** – new Dental Plan is not accepted by your dentist
- Supervision** – supervisor doesn't set a good example for staff
- Relationship with Supervisor** – supervisor has no idea what you do
- Work conditions** – they won't install a fume hood for the soldering station
- Salary** – frozen this year; no increase
- Relationship with Peers** – promoted from within, now must supervise them
- Personal Life** – divorce? teenagers at home?
- Relationship with Subordinates** – as a CE, BMEs belittle your technical skills
- Status** – you hate that clinicians call you "Mister Fix-it"
- Security** – latest downsizing/merger rumors are looming

Figure 4. Self-Protection Needs

Bruce and Blackburn<sup>6</sup> address managers:

*The keys to both job satisfaction and job performance are you, the supervisors in your organization, and the support you provide. When you value participation, affirm diversity, and establish a workplace environment of mutual commitment, you enable yourself and your employees to balance both job satisfaction and performance.*

Admittedly, we don't have complete control over the job environment. We'd like to provide our employees with every opportunity to succeed, but we don't always have control over the benefit plan or the training budget. Start with making a list of the things you *can* control, and use *those* things to adjust the environment in ways that allow your people to succeed. While you may have no control over the dental plan, you can still make a person feel good by trusting him with that important job assignment he wants. We'll consider this the third and final step in improving performance through job satisfaction—managers need to *facilitate* this process.

Success (of both employee and employer) can only be achieved if you first clarify expectations. Then, the manager should be taking down the barriers in peoples' way, not erecting new ones. If a mechanism doesn't exist to painlessly reimburse the employee for an ad hoc parts purchase at the hardware store, the organization stymies the employee's desire to be a hero.

**Nearing the End of Our Broadcast Day**

Before we roll the credits, I'd like to address a few oft-ignored factors in the motivational arena—generational, team, and co-dependency issues. They all provide some interesting threads that run through the job satisfaction/motivation fabric.

**Generational**

In the book *Generations at Work*,<sup>7</sup> Zemke, et al. describe what generally motivates certain age groups and what keeps them happy at work. The groups are presented in Figure 5. I've included their "Heroes" because whom they admire says a lot about people. Note the very conspicuous entry for one of the groups. I know some of you are thinking labels are for jelly jars and that real people cannot be categorized as neatly. Well, you're right. But keep in mind that giving a name to something is the first step in understanding. It reduces people's fear of the unknown and creates a sense of control.

Based on the mean age of the 381 respondents to

*BI&T's* 2003 Salary Survey,<sup>8</sup> the average BMET I is a GenXer and the rest of our profession is made up of Baby Boomers. What does this say about what motivates us? According to Zemke, et. al., the messages in Figure 6 are what motivates the two groups.<sup>7</sup>

Doesn't appear that Gen Xers would be very happy working in a health care institution, does it?<sup>9</sup>

**Go, Team!**

Don't kid yourself about teams. The only way a team will work is if there's a clear goal and all members are committed to attaining it.

**The Veterans 1922-1943** Those born prior to WWII and whose earliest memories and influences are associated with that world-engulfing event. (Heroes: Superman, FDR, MacArthur, Patton, Eisenhower, Babe Ruth)

**Baby Boomers 1943-1960** Those born during or after WWII and raised in the era of extreme optimism, opportunity, and progress. (Heroes: Gandhi, Martin Luther King, John and Jacqueline Kennedy, John Glenn)

**Generation Xers 1960-1980** Those born after the baby boom and came of age deep in the shadow of the Boomers and the rise of the Asian Tiger. (Heroes: None)

**Generation Nexters 1980-2000** Those born of the Baby Boomers and the early Xers and into our current high-tech, neo-optimistic time. (Hereoes: Michael Jordan, Princess Diana, Mother Teresa, Tiger Woods, Bill Gates)

**Figure 5. Generations at Work**

**The Baby Boomers:**  
 "You're important to our success."  
 "You're valued here."  
 "Your contribution is unique and important."  
 "We need you."  
 "I approve of you."  
 "You're worthy."

**The Generation Xers:**  
 "Do it your way."  
 "We've got the newest hardware and software."  
 "There aren't a lot of rules here."  
 "We're not very corporate."

**Figure 6. Messages that Motivate<sup>7</sup>**

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Distributing work to teams shifts the unit of responsibility for work from individuals to teams and introduces a number of fundamental processes that exist only at the team level. Coordination, cooperation, cohesiveness, and conflict are just a few of the phenomena that play a crucial role in effective team performance but have no comparable analog at the level of individual performance. Yet, individuals, not teams, are the ones promoted, transferred, trained, and rewarded in organizations.<sup>10</sup>

Teams can meet certain social needs, but they aren't necessarily the best way to get the job done.<sup>11</sup>

### Co-Dependency

When we look at motivation and job satisfaction among health care workers (this includes us BMETs and clinical engineers), something that muddies the waters is co-dependency. This is a tendency to put other peoples' needs before your own—at your own expense. Not healthy. If the patient care area is inadequately staffed, will the overworked nurse stay an extra shift because the patients will suffer if he leaves? Probably. Why did the nurse get into this business? To help people. Is he going to turn his back on the patients? Not likely. Can bosses abuse this motivator? Of course.

### Conclusion

When we study motivation and job satisfaction, we realize that biological self-preservation is pretty much the coin of the realm. Consciously or unconsciously, people ask "What's in it for me?"<sup>11</sup> In a general sense, we do what's best for ourselves and if that happens to also benefit the tribe so be it.<sup>12</sup>

A manager should create a confluence of goals for employer and employee. We can distill this process into a three (consecutive)-step prescription: Managers as *observers* pay attention to peoples' needs. Managers as *strategists* design the work environment to allow employees to excel. Managers as *facilitators* take down the roadblocks in peoples' way (which is usually the bureaucracy) in their quest to do what's best for the employer. After reading this article, it should be obvious why the steps are consecutive—skip a step, and your competitor may get to roll the dice. ■

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**Answer to the question on page 284:** *Free food can easily meet three of Maslow's five needs—Can you pick which ones?* Physiological (metabolic), Social (sense of belonging), and Esteem (you're paying attention to people!).

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