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LOOKING BEYOND 'AFFORDABLE' HEALTHCARE: CULTURAL UNDERSTANDING AND SENSITIVITY? NECESSITIES IN ADDRESSING THE HEALTHCARE DISPARITIES OF THE U.S. HISPANIC POPULATION

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ABSTRACT

Health disparities are pervasive in the United States. It is clear that poverty, lack of insurance, legal status and racial/minority status are factors that explain the disparities present in the Hispanic population in access to healthcare. However, other research shows that there are special attributes of Hispanics such as culture, values and traditions that also affect their relationship and the quality of the services they receive from healthcare providers. Hispanics not only require financial assistance from the community but also empathy towards their culture and their understanding of health and well-being. The cultural differences that affect healthcare are more evident when studying Hispanics' behavior towards the use of medications, since cultural and economic reasons influence the way they use prescription medications and other type of methods that help to treat illnesses. The current efforts by non-profit organizations, the government, healthcare professionals and pharmaceutical manufacturers to offer information are not enough to cover the needs for accessible, appropriate, and cultural sensitive information targeted to the diverse Hispanic community. Recommendations are presented to address this healthcare issue.

PHYSICIAN EXECUTIVE EDUCATION

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ABSTRACT

The purpose of this paper was to explore the desire by physicians for advanced management education and how best to offer this education to physicians. Managed healthcare plans made decisions about patient care that were previously made by the physician leaving the doctor as a contracted employee of the health insurance plan. The physician already has most of the required medical knowledge but is usually lacking in the requisite leadership and preventive medical knowledge. These deficits can be eliminated by the proper graduate educational programs.

In order to determine physician desire for graduate education in leadership skills along with public health techniques to prevent disease from occurring, a survey was sent to all physicians in Luzerne County, Pennsylvania. Of the 889 surveys that were distributed to the physician group, 152 were returned for a response rate of 17.1%.

Although job satisfaction was not a predictor of interest in pursuing continuing education, physicians who were planning to change jobs in the near future recognized the need for more education. The key ingredient to making this education available to most physicians would be to package the program in an online format where the physician is allowed to proceed at their own pace.

INTRODUCTION

Healthcare costs continue to rise every year and millions of Americans do not have health insurance. The practices of unhealthy behaviors are resulting in chronic diseases and their complications that are threatening to bankrupt the healthcare delivery system in the United States. The costs of healthcare have surpassed two trillion dollars, representing 16% of Gross Domestic Product and health economists are predicting that by 2030, healthcare costs will represent 25% of everything that we produce in this country on an annual basis. It is very clear that something has to be done to solve this crisis in healthcare delivery.

The costs associated with delivering healthcare services to Americans are rising faster than the cost of living every year. This difference in price increases usually indicates a problem with productivity in the sector experiencing the higher costs of production. This nation has tried price controls, managed care, government management of programs like Medicare and Medicaid and has met with only limited success. The solution to productivity problems is usually better management of scarce resources to improve outcomes.

According to Feldstein (2007) managed healthcare was a response to the inefficiencies and waste that had become very evident in the way health care was being delivered to Americans. Managed healthcare plans made decisions about patient care that were previously made by the

physician leaving the doctor as a contracted employee of the health insurance plan. Managed healthcare has had only limited success at controlling healthcare costs and has resulted in tremendous backlash by the providers of healthcare services.

Williams & Torrens (2008) argue that there is a tremendous need in this country to develop leadership competencies in our physicians and nurses if we are to meet the future demands made on our healthcare system. That loss of power by physicians may produce tremendous opportunities for physicians who are willing to make an attempt at regaining their power through a different type of education. According to Dilenschneider (2007) many individuals do not fully understand power and what it can accomplish for them. This is especially true for physicians. They cannot understand how they lost their power and thus become incapable of living up to their potential in the system where they work and earn a living. Such is the case of the physician who lost his or her power to managed healthcare over the last several years. In order to make a major change in your industry you must first gain power. There are many sources of power and some of these types of power can be taken away from you by others. There is one type of power that once gained by an individual can never be taken away. That source of power is expertise or information usually provided by additional education.

The key player in the delivery of health services in this country remains the physician. Despite the power and resources of health insurance companies the physician is still one of the most important players in the delivery of healthcare services. Conbere, Campion, Gilliam, & Heorhiadi (2007) argue that although physicians have a great understanding of medicine very few physicians are prepared to play a substantive role in administrative decisions that affect the delivery of health services in this country.

In order to be involved in the administrative decisions that will affect the newly emerging healthcare system, the physician must learn new skills including, finance, accounting, statistics, marketing, organizational behavior, the process of change and leadership. While physicians are acquiring these new administrative skills it would also be an opportune time for them to receive training in the prevention skills available from some public health courses.

Physicians also need to be involved in helping to change the focus of healthcare delivery from a system of cure to one of prevention. Unfortunately, very little time is spent in the physician's education on how to prevent disease. They are trained in how to attempt to cure those who become ill. The diseases of the twenty first century are caused by unhealthy life styles that lead to the development of chronic diseases later in life. These chronic diseases have long incubation periods, have no cure and are very expensive. The challenge is to help patients not to develop chronic diseases or limit their complications once acquired.

The multitude of challenges facing the healthcare delivery system in future years requires the participation of the most important player in medical care, the physician. Before this player can fully participate in the problem solving required in healthcare he or she must be educated in administrative skills and public health knowledge in order to produce a healthier patient at a reasonable cost.

LITERATURE REVIEW

The Institute of Medicine's 2001 report *Crossing the Quality Chasm* states that the U.S. healthcare system has the highest level of medical and technical advances yet lacks the ability to meet the most basic needs of millions of Americans. The report calls for a restructuring of the current healthcare system and integral to this end, the Institute of Medicine cited the need for increased leadership in healthcare. Physicians are positioned to fulfill this leadership role. Emanuel and Dubler (1995) note more than 75% of healthcare decisions are driven by physicians and according to Lane and Ross (1998) physician leadership is paramount in achieving balance between multiple conflicting ideas in healthcare including cost containment, quality of care, prevention and intervention. A pilot study of medical directors at federally funded Community Health Centers showed that those who use a transformational leadership style, which has been documented to enable superior performance in organizations, have superior disease outcomes (Xirasagar, Samuels, Stoskopf, 2005). Yet, physicians remain poorly trained in the area of leadership and management.

In a recent review of US medical school education programs in 2002-2003, leadership skills were not part of the medical school curricula (Barzansky and Etzel, 2003). As a result, physicians who attain leadership roles are often undereducated for the task. A study by Leslie, Miotto, Liu et al. in 2005 confirmed that young pediatricians during residency and beyond found themselves in positions of leadership such as faculty positions, public health administrators and armed services physicians. Participants in this study were often seen as "natural leaders" and desired formal training in leadership to better address the challenges found in their roles. Many noted that leadership strategies learned in medical school and residency were helpful but other types of training were still needed. In a survey of 269 medical directors at community health centers, only 12.5% had a MHA, MPH, or MBA (Xirasagar, Samuels, Curtin, 2006). The need and desire for physician leadership is clearly a prerequisite for physicians. They also need to better understand the role of high-risk behaviors in the development of chronic diseases and their obligation to discuss these behaviors with their patients.

METHODOLOGY

In order to determine physician desire for graduate education in leadership skills along with public health techniques to prevent disease from occurring, a survey was sent to all physicians in Luzerne County, Pennsylvania. The survey was evaluated and approved by members of the Luzerne County Medical Society in October, 2007. The medical society provided mailing labels for the survey which was sent to 889 physicians in late November, 2007.

The survey contained fifteen items covering a wide array of topics related to continuing education for physicians. The most direct question asked the respondents their likelihood of enrolling in a master's program in the next three years. In addition, two questions presented specific master's programs (master's degree in healthcare administration and a master's degree in public health) and assessed their interest in these programs. Five survey items examined key factors that are related to continuing education. One item asked about the respondents preferred approach to learning (traditional classroom format, online approach, videotapes, etc.). Two other items examined the most significant and least significant factors related to continuing medical education

(time required to complete the course, convenience of the course to one's schedule, proximity of the course to one's home or work, learning method used, and cost). Similarly, another item inquired into their biggest concern with continuing medical education (difficulty of the material, finding the time to complete the course, cost of the program, career relevance of the material, other). The final question related to this topic examined how much time the physician was willing to dedicate to continuing education (from only a few hours per week to as much time as needed). Two of the final objective items on the survey asked about the physician's current level of job satisfaction (from strongly satisfied to strongly dissatisfied) and the physician's intention to changing their occupation (from very likely to definitely not likely at all). The last two items provided some classification of the survey respondents in terms of when he/she received their medical degree (from less than three years ago to over 20 years ago) and their job classification (a general practitioner to a specialist, working in private practice to working in a large healthcare organization).

The survey did include three open-ended questions. These questions asked the physicians to identify educational topics in healthcare administration, public health and local healthcare needs that they would be interested in learning more about. Unfortunately, most physicians left these questions blank (65.1% to 73%). Furthermore, the responses to these three items were quite diverse. There was not a single topic that was identified by even ten physicians. Therefore, these items will not be discussed.

In terms of statistical analysis, the data was initially analyzed through descriptive statistics. Since the survey items were categorical, a series of chi-squares were performed utilizing an alpha level of .05 to identify significant relationships among the items.

RESULTS

Of the 889 surveys that were distributed to the physician group, 152 were returned for a response rate of 17.1%. The majority of the physicians that completed this survey earned their medical degree more than 20 years ago (68%). Only 8.7% of the participants received their medical degree within the last 10 years. In addition, the survey respondents represented a wide range of jobs. The most popular job category was a specialist in a private practice (32.7%). Some, however, were general practitioners in large healthcare organizations (11.3%), general practitioners in a small private practice (12.7%), specialists in large healthcare organizations (20%), healthcare administrators or retired physicians (23.3%).

The first item on the survey asked physicians their preferred learning method related to continuing education. About half (51%) of the subjects preferred a traditional classroom approach. The second most popular choice was an online learning format (24.5%). The least popular choice was the video option (6.6%). This item was followed by their perceived likelihood of enrolling in a master's program in the near future (next three years). Only 20% of the subjects responded that they are likely to take such an action. Interestingly, a chi-square analysis showed a significant difference ($\text{Chi}^2 = 15.17$, $p < .01$) between those interested in pursuing a master's degree and preferred learning method. The physicians that were interested in pursuing a master's degree preferred an online learning method (50%), whereas physicians not interested in pursuing a master's program preferred a traditional classroom approach (57.5%).

To probe further in physicians' attitudes toward continuing education, the survey asked physicians to identify the "key factor that affects their willingness to enroll in any form of continuing education." The most critical factor was the course's "convenience to their schedule" (52%). The second factor was the "proximity of the course to their home and office" (16%), which is another factor related to convenience. Only 7.3% of the respondents indicated that cost of the course had a significant role in deciding to pursue continuing education. Similarly, the survey included an item on "what was their biggest concern" with pursuing continuing education. Not surprisingly, the "time demands of the course" was identified as the biggest concern by most survey respondents (61.4%). The relevance of the course to their career was a distance second (28.3%). Only 1.4% of the physicians indicated that the "difficulty of the course" was a major concern for them. A follow up item on the survey asked "approximately how much time could they devote per week" to continuing education. Consistent with the above items, the most common choice was "only a few hours at most per week" (63.3%). Only 10.2% of the respondents indicated "as much time as needed."

Two specific master's programs were included on the survey to gauge physician interest. A master's program in public health did receive varying levels of interest from 43.4% of the survey respondents, albeit only 9.9% indicated a strong interest in such a program. A master's program in healthcare administration received even greater interest. More than half of the subjects (54.6%) did indicate some interest in this option. Comparable to the public health option, only 10.5% of the physicians indicated strong interest in this degree. The low levels of strong interest in these master's programs cannot be attributed to when these physicians earned their medical degree. A chi-square analysis did not reveal a significant relationship between medical degree completion and likelihood of enrolling in a master's program ($\text{Chi}^2 = 3.85, p > .10$).

The final part of the survey examined the physician's current job situation and the connection to continuing education. One item on the survey asked the physician to indicate their level of job satisfaction. The vast majority of the respondents indicated moderate (37.7%) to strong (32.5%) job satisfaction. Only 3.3% of the physicians indicated a high level of job dissatisfaction and 17.2% indicated moderate levels of dissatisfaction. A chi-square analysis did not reveal a significant relationship between the physician's level of job satisfaction and their likelihood of enrolling in a master's program ($\text{Chi}^2 = 4.78, p > .10$).

A second item on the survey asked respondents to indicate "how likely are they to change jobs in the near future." About two-thirds of the physicians (66.2%) responded that they are not likely to change jobs, whereas as 18.5% did indicate a job change is likely. This finding is consistent with the high levels of jobs satisfaction reported above. This item, however, was significantly ($\text{Chi}^2 = 27.99, p < .001$) related to the respondent's likelihood of enrolling in a master's program. Of the 28 physicians that indicated that they were likely to change jobs in the near future, 43% indicated that they were also likely to enroll in a master's program. Of the 100 physicians that indicated that they were unlikely to change jobs, only 9 (9%) indicated they were likely to enroll in a master's program. Overall, it appears that job satisfaction was not a significant predictor of intention to pursue continuing education, whereas intention to change jobs was a significant predictor.

DISCUSSION

There is no question that the healthcare system in this country is in a state of crisis. This crisis is producing profound change in medical care delivery which will also produce great opportunities for the players in the delivery of healthcare services. One of these major players could be the physician if he or she is prepared for the change.

The physician already has most of the required medical knowledge but is usually lacking in the requisite leadership and preventive medical knowledge. These deficits can be eliminated by the proper design of graduate educational programs. Attention needs to be paid to what motivates a physician to return to school and what type of curriculum will attract the physician to an educational program.

This study revealed some interesting areas of thought in how best to design this graduate experience in order to attract the physician. The format, location of the program and the time involvement seem to be the most critical factors in the physician's interest in beginning a new graduate experience. Although this study revealed that there was some interest in public health there was clearly greater interest in the healthcare administration curriculum.

Although job satisfaction was not a predictor of interest in pursuing continuing education, physicians who were planning to change jobs in the near future recognized the need for more education. It seems like a certificate or graduate program in healthcare administration, requiring some courses in public health, might be a very popular choice for physicians. The key ingredient to making this education available to most physicians would be to package the program in an online format where the physician is allowed to proceed at their own pace.

A physician educated in healthcare administration along with the preventive medicine aspects of some public health courses may be one of the answers required in the better management of healthcare costs while improving the quality of healthcare services. It seems that a number of physicians are ready to receive healthcare administration education if the right package of education is developed by graduate schools.

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BARRIERS TO SURGEON-DRIVEN INNOVATION IN HEALTH CARE

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ABSTRACT

Surgeon-innovators have long been an integral part of the modernization and improvement of healthcare. Despite their historical participation in innovation, the number of and funding for surgeon-driven innovations is decreasing. Although the literature on surgical innovation is increasing, little exists concerning surgeon-specific barriers to innovation. This paper seeks to clarify the expected benefits and possible disadvantages of surgeon-driven innovation. Additionally, it will briefly discuss the typical models and processes utilized by surgeon-innovators. As these are more fully understood, this paper will seek to elucidate the potential surgeon-specific barriers (individual and collective) to the innovation process. With a better understanding of these potential barriers, measures may be constructed and implemented to both eliminate these barriers and promote increased surgeon participation in the innovation process.

INTRODUCTION

Entrepreneurship, invention, and innovation have long been driving aspects of the medical community. Loscalzo (2007) argues that physicians are the apotheosis of an entrepreneur because they are typically self-employed individuals who have autonomy, control their affairs, and are willing to take risks. The primary role of the physician, however, is to treat disease. For the greater part of the twentieth century, physicians utilized business and innovation practices to achieve this end. Physician driven invention, innovation and entrepreneurship have been directly coupled to improvements in the delivery of health care (Varkey, Horne, and Bennet, 2008). Eng (2004) states that technological innovation is a major driver of both quality of life and health improvement for both individuals and communities. Inventions and innovations by physicians have led to the development of anesthesia, cardiopulmonary bypass procedures, vaccines for small pox, poliomyelitis, diphtheria, and tetanus, artificial heart valves, and instruments including endoscopic and laparoscopic tools (Eng, 2004; Riskin, Longaker, Gertner, & Krummel, 2006; Stossel, 2008). Changes in social, political, regulatory factors (Eddy and Stellefson, 2008) coupled with decreasing physician reimbursement (Stoddard and Danielsen, 2008) and the increased availability of willing commercial partners (Pizzo, 2007) have increasingly driven physicians into entrepreneurial and innovative endeavors to sustain their levels of income (Gingles and Knechtle, 2008). These ventures have become especially prevalent in academic centers (Stoddard and Danielsen, 2008). These enterprises have typically taken on either of two roles. First, the physician ownership of medical facilities including, but not limited to, acute care hospitals, laboratory or diagnostic imaging centers, and physical or occupational therapy centers (Morrison, 2000). The literature concerning business models of these ventures as well as the financial, professional, legal, and ethical concerns that they

have created is quite robust and beyond the scope of this paper. The second category of physician driven enterprises includes the invention and innovation of new technologies applicable to the health care field (Riskin et al., 2006; Loscazlo, 2007). In 1980, the Bayh-Dole Act was passed by Congress. This act directly encouraged universities to commercialize their intellectual capital (Chisolm, 2007; Cosgrove, 2007; Gingles and Knechtle, 2008). Following this act, many physicians partnered with industry and venture capital groups to commercialize their innovations (Gingles and Knechtle, 2008).

Surgeons hold a unique position within the medical community. They are constantly employing new technology in the individual treatment of disease. In fact, Riskin et al. (2006) argue that surgeons innovate on a daily basis, tailoring therapies and operations to the intrinsic uniqueness of every patient and their disease. With the technical nature of the specialty and the above mentioned daily use of innovation, one would assume that surgeon invention and innovation are flourishing. While many surgeons are at the forefront in the development of new products and techniques, the numbers of surgeons participating in research and innovation have been falling behind their colleagues in other clinical disciplines for decades (Jones and Debas, 2004). Additionally, the National Institute of Health funding for surgical research has decreased, with awards for surgical grants averaging 5% to 27% less than nonsurgical grants (Rangel, Efron, and Moss, 2002). Surgeons also accounted for a relatively smaller proportion of total grant review members compared to non-surgeons (Rangel et al., 2002). While numerous articles have discussed invention and innovation in the surgical community, very little discussion has been made concerning the barriers (real or perceived) to invention and innovation by the individual surgeon. This paper seeks to delineate the driving forces for surgeons participating in these endeavors, the typical models they employ, and the barriers preventing the ultimate development of novel ideas, products, and technologies.

DEFINING INVENTION AND INNOVATION

Varkey et al. (2008) define invention as the first occurrence of an idea for a new product or process and Riskin et al. (2006) maintain invention exists as a mentally fabricated idea. For the purposes of this article, invention shall be defined as the creation of a novel idea which has yet to be tangibly realized or otherwise put into practice. Innovation is a broad term which has been defined in many different ways. Dorf and Byers (2008) define innovation simply as commercialized invention, while Varkey et al. (2008) describe innovation as the successful implementation of a novel idea in a way that creates compelling value. Innovation shall hereafter simply be used to denote the successful implementation of a new idea or concept. This combination of original ideas coupled with implementation is also a central tenet of surgery and these ideas may come in the form of technology, technique, or a combination of the two (Riskin et al., 2006). Technological innovation may be further defined as disruptive or non-disruptive. Disruptive innovations are often technologically straightforward and focus on a new set of product attributes (Riskin et al., 2006). They tend to create new markets while marginalizing older ones (Varkey et al., 2008). Non-disruptive innovations, however, tend to be extensions of current products, services, or processes (Varkey et al., 2008). Although non-disruptive innovation is more common than disruptive, they are both common in surgical innovations.

DRIVING FORCES OF INNOVATION

As with any endeavor, there are a number of motives driving surgeons to develop new innovations. Many of these may be ascribed to the individual, but several of these motives more appropriately pertain to the institutions which employ the physicians. Additionally, there are drawbacks to the development of innovations.

Surgeon innovators stand to gain a great deal from the development of their innovations. Perhaps the most obvious benefit is that of financial reward. Physicians often receive royalties for their innovations. The royalty rates typically range from 1.5% to 8% with an industry average of 3% of net sales (Gingles and Knechtle, 2008). In order to establish an innovation, the surgeon is often hired by the company as a consultant in order to promulgate the product or process (Angell, 2000; Stoddard and Danielsen, 2008). Many are hired to serve on advisory boards, speakers' bureaus or to promote the innovations at company-sponsored symposiums (Angell, 2000; Chislom, 2007; Pizzo, 2007). Surgeons may receive research grants from companies hoping to create further product advancements (Angell, 2000; Stoddard and Danielsen, 2008). Companies often provide equity in or stock options for the surgeon investigator (Angell, 2000; Moses, Braunwald, Martin, and Their, 2002). Surgeon-innovators may receive recognition for their innovations in the form of peer-reviewed scientific publications (Platt, Evans, and Platt, 2008), presentations at national meetings, invited lectures, or word of mouth through the surgical community. Increased recognition often leads to the promotion of academic physicians within their department (Platt et al., 2008; Warsaw and Sarr, 2008). Participation in the innovation of devices and techniques keeps a surgeon current in his field (Stoddard and Danielsen, 2008). Finally, the development of new innovations can greatly increase a surgeon's career satisfaction (Stoddard and Danielsen, 2008).

While individual surgeons stand to gain a great deal personally from developing new innovations, the institutions for which they work as well as their patients also have much to gain. Academic institutions and departments employing surgeon-innovators often receive a portion of the royalties from the products that their employees develop (Platt et al., 2008). These monies can then, in turn, be used to fund additional research directly associated with a specific innovation or other technological or basic science research, educational endeavors, or clinical services. Agreements with individual companies often result in the awarding of research grants to the departments or institutions. Cooperative efforts with the technology industry are often viewed as a means of obtaining cutting edge technology for an institution (Loscalzo, 2007). Recognition of particular discoveries and innovations lead to increased institutional value by means of enhancement of academic reputation, prestige, and competitiveness of the academic center (Platt et al., 2008). These factors can improve an institution's marketability and contribute favorably to philanthropy and related institutional development efforts (Platt et al., 2007). A key mission of academic institutions is the advancement of medical knowledge in the treatment of disease (Loscalzo, 2007; Vagelos, 2007; Platt et al., 2008; Toner and Tompkins, 2008). Platt et al. (2008) take a more assertive position stating that entrepreneurship coupled with technology transfer should be considered a fourth academic mission in addition to education, patient care, and research. The pursuit of novel ideas and new innovations clearly fulfills the institutions responsibility to advance medical knowledge. Medical innovation can also provide value to patients. Patients often have the expectation of being treated with the most current techniques and technology (Moses et al., 2002). The utilization of new

innovations provides them with this opportunity and improves patient outcomes in the process (Loscalzo, 2007; Varkey et al., 2008). Finally, new innovations often are able to decrease patient costs by improved efficacy of disease treatment, decreasing surgical time, and shorter hospital stays.

Although there are many supporting arguments for the development of new innovations by surgeons, any discussion of the issue must necessarily include the potential drawbacks associated with this innovation. As with any attempt at innovation, the endeavor may be unsuccessful. If this is the case, the individual, the supporting institution, or both may see little or no return on their investment. The amounts of money used for the development of many of the innovations are substantial. If the enterprise were to fail, it could present a large financial blow to its sponsoring institution. This, in turn, may jeopardize patient care, surgeon employment, and other research projects. The risk of financial loss creates a conflict of interest for the institutions. They are vested in the given endeavor, sometimes to a great extent. Some feel that this may create a bias in both the type of research the innovation undergoes and the way in which it is reported (Angell, 2000; Loscalzo, 2007). There have been several instances of fraud resulting from data fabrication associated with financial conflicts of interest (Sheehan, 2007). Loscalzo (2007) argues that the aforementioned bias may result in endangerment of patients involved in research protocols. The most egregious example of this situation is the case of Jesse Gelsinger, an 18-year-old man who died in 1999 while participating in a gene therapy study at the University of Pennsylvania. The researcher failed to stop the study after learning of serious toxicities of the therapy and refused to disclose these risks to the participants (Stossel, 2005; Sheehan, 2007). Another matter of concern is that patients will lose respect for the physician and the institution with a conflict of interest, thereby irrevocably compromising the medical profession (Loscalzo, 2007). A recent study of 253 cancer patients, however, found that more than 90% of patients expressed little or no worry concerning financial ties that researchers or institutions might have with drug companies and most believed it ethical for researchers and institutions to receive royalty payments and speaking fees from companies (Hampson et al., 2006). Clearly there are disadvantages and risks associated with the development of new innovations. These are magnified when one considers that these innovations are typically being employed on human patients. As the surgeon innovator begins the process of developing new innovations, each must be carefully considered.

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