APPLICATION OF MOTIVATION-HYGIENE

THEORY TO HOSPITAL PHARMACISTS

By

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of a research project report submitted by

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We, the undersigned, have read this research project report and have found it to be of satisfactory quality for the Master of Science in Hospital Pharmacy and Residency in Hospital Pharmacy.

[Signatures]

Date

Chairman, Supervisory Committee
I have read the research project report of Richard Carter Standish in its final form and have found that 1) its format, citations, and bibliographic style are consistent and acceptable; 2) its illustrative materials including figures and tables are in place; and 3) the final manuscript is satisfactory to the Supervisory Committee and is ready for submission to the Hospital Pharmacy Program Committee.
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INTRODUCTION

Managing people is one of the most difficult tasks that managers have. People are hired into an organization with the expectation that they will increase the organization's productivity. After the newness of a job wears off and productivity begins to drop, managers must find ways to keep employees satisfied and to motivate them in their work to maintain productivity. With personnel attrition costs and the cost of training new people increasing, managers should be very attentive to retaining the employees who are trained to do the job, by keeping them satisfied.

During the 1970's, the growing personnel motivation and job satisfaction problems that affected hospital pharmacy were explored in three articles: In 1972, Williamson and Kabat found in a survey of hospital pharmacists in Minnesota that they were largely dissatisfied with their job. In 1978, Curtiss, et al found higher job dissatisfaction among institutional pharmacists than community practitioners, stemming mainly from poor supervision and institutional policies and procedures that are encountered in that setting. Johnson, et al had similar results. If these problems of job dissatisfaction apply to all pharmacists, then hospital pharmacy managers need a method to improve satisfaction and facilitate motivation in their employees to avoid these problems.

Studs Terkel, in his best selling book *Working*, published an interview with a community pharmacist. In the interview, the pharmacist described job factors that were important for his job satisfaction.
These observations were consistent with those of Curtiss, who, after a survey of 741 pharmacists, pointed out that dissatisfaction among pharmacists can arise from poor supervision and/or unfair or difficult institutional policies and procedures. These are also two of the factors identified in Herzberg's Motivation-Hygiene Theory as factors leading to job dissatisfaction. Grace has described the basic points of Motivation-Hygiene Theory and described several job factors and the consequences of each factor in hospital pharmacy. Grace also recommended some simple steps to improve motivation and decrease dissatisfaction among hospital pharmacists. However, these recommendations were not based on actual experience with the theory. There have been no previously published reports of application of Motivation-Hygiene Theory in pharmacy.

Motivation-Hygiene Theory

In 1959, Herzberg, et al identified specific events in a job that made the employees feel exceptionally good or bad about their job. By identifying these events he felt he could better understand employees' behavior. His sample, in the original work, was 200 engineers and accountants. This sample was surveyed using a method known as the sequence of events, similar to the critical incident method developed by Flanagan.

From the information gathered in the 1959 survey and many other replications, Herzberg formulated his Motivation-Hygiene Theory, which is essentially an explanation of human behavior in the work environment. He theorized that workers have two sets of needs which they simultaneously strive to fulfill. Herzberg calls one set hygiene needs, adopting the term from the public health vocabulary. Hygiene factors in the job are analogous to public health concerns, such as water purification and
innoculations, which avoid pain from the environment and help prevent problems in the future. Workers will strive to avoid the "pains" in the work environment, such as the "pain" brought about by a low salary, or an uncomfortable work place. They seek basic comfort. If these needs are not met, the employee will be dissatisfied in his job. In the job environment, good salary, fair supervision, good relations with fellow workers and good working conditions will help the worker avoid his "pain." If these needs are met in the job, the employee will be less dissatisfied. But hygienes can only be maintained. Because the maintenance of hygienes is short lived, these factors need continual management attention. Herzberg recommends good hygiene administration by management to prevent worker dissatisfaction and subsequent worker revenge attitude.

Whether the employees' hygiene needs are met or not, most will also look for factors that are intrinsic to the job itself, i.e. job content, so that they can have personal growth and satisfaction. These intrinsic factors are called motivators. Achievement in the performance of the job, recognition for achievement, the work itself, advancement, responsibility and growth are the motivators in a job that are most frequently derived from sequence of events interviews. Experiencing one or more of these motivators can lead to real individual growth for the employee. This growth and motivation lead to long term continued improvement in productivity. The motivator and hygiene factors are listed in Figure 1.

One of the most unique and fundamental points to the understanding of Motivation-Hygiene Theory is that the results of a study with this theory have no predictive power concerning the "overall satisfaction" of an organization. Motivation-Hygiene Theory denies the validity of such
innoculations, which avoid pain from the environment and help prevent problems in the future. Workers will strive to avoid the "pains" in the work environment, such as the "pain" brought about by a low salary, or an uncomfortable work place. They seek basic comfort. If these needs are not met, the employee will be dissatisfied in his job. In the job environment, good salary, fair supervision, good relations with fellow workers and good working conditions will help the worker avoid his "pain." If these needs are met in the job, the employee will be less dissatisfied. But hygienes can only be maintained. Because the maintenance of hygienes is short lived, these factors need continual management attention. Herzberg recommends good hygiene administration by management to prevent worker dissatisfaction and subsequent worker revenge attitude.

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HYGIENE FACTORS

1. Company Policies and Administration
2. Working Conditions
3. Interpersonal Relations
4. Supervision
5. Salary
6. Status
7. Security

MOTIVATOR FACTORS

1. Achievement
2. Recognition for Achievement
3. The Work Itself
4. Responsibility
5. Advancement
6. Growth

Figure 1. Motivator and Hygiene Factors
a measure. Satisfaction and dissatisfaction in a job operate on two separate continua or levels, not two continua with a common end point. The opposite of satisfaction is no satisfaction. The opposite of dissatisfaction is no dissatisfaction. They are not measured together. There is no neutral point between them. There is no average employee

Dissatisfaction ← No Dissatisfaction

No Satisfaction ← Satisfaction

morale. A person who performs a boring, repetitive job, receives no satisfaction from the work, and is not motivated to do it. Additional money will move him temporarily and make him less dissatisfied in the long run. Theoretically, more hygienes will not compensate for the absence of motivators. This error of mixing analysis of hygienes and motivators has been observed in many job satisfaction surveys. Employee moral surveys are often the first step taken by organizations with motivation problems in an effort to analyze their problems. These surveys commonly list fifteen job factors, a combination of hygienes and motivators, and ask the respondent to rank all of them from most important to least important in determining their own job satisfaction, rather than asking the employee directly what real events on the job make him satisfied, as with the sequence of events method. An example of such a survey is the Job Diagnostic Survey (JDS), developed by Hackman and Oldham.9 Dennis 10 used the JDS to assess pharmacists' job attitudes in centralized versus decentralized pharmacy operations and found greater satisfaction among decentralized pharmacists. Actually, the JDS was an outgrowth of a
1965 questionnaire developed by Herzberg, the Reaction to Your Job Survey, which he used only as a simplified back-up to the sequence of events method, which he values more. In the context of Motivation-Hygiene Theory, the overall measuring of job satisfaction, as the JDS does, is inappropriate, due to the different dynamics of human hygiene and motivation, pain avoidance and growth behavior.

Other Theories of Motivation

Managers have not always depended on the employee's self motivation to get the job done. Some managers have used what Herzberg calls KITA, a "kick in the pants" to motivate people. At one time, the KITA was negative and physical, as with the treatment of the slaves. This is consistent with the methods of McGregor's Theory X manager. More recently managers have used a positive psychological KITA, dangling the monetary reward or an "attaboy" in front of the worker to get him to do what is wanted, as does the Theory Y manager. In either case, Herzberg would say the person is only moved; he is not motivated. The next time you want the person to do something, you have to give him another "kick."

According to Herzberg, for long term productivity and satisfaction, managers must strive to motivate rather than move the worker. Motivation is internally generated by the employee, is not dependent on social relationships, is longer lasting, and is more beneficial to the employer than movement.

Vroom's Expectancy Theory is often reported in textbooks and is taught in organizational effectiveness classes, and accepts what Herzberg would call short term movement from KITA as motivation. Very simply, this theory states that if the worker can see that his efforts will lead to a certain level of performance and that performance is rewarded in a manner
the employee values highly, he will be motivated to put forth the effort to produce. Expectancy Theory is a refinement of Skinner's operant learning, conditioning the employee to spend all his energy striving for higher extrinsic rewards, according to Herzberg.

Maslow's hierarchy of needs is often compared with Motivation-Hygiene Theory but is in direct contrast. Motivation-Hygiene Theory holds that motivation (self-actualization needs) cannot wait until other needs (hygiene) are fulfilled. Maslow states that a person will fulfill his basic needs in a step-like process. He will first fulfill his psychological needs, basic "pain" avoidance such as hunger, protection from the environment, and personal comfort, then his safety needs, belongingness needs, esteem needs and finally self actualization, the need for self-fulfillment.

Another popular textbook theory similar to Maslow is Aldefer's Existence, Relatedness and Growth (ERG) Theory. Existence would approximate Maslow's physiological and safety needs, whereas relatedness needs are analogous to belongingness needs, and growth needs encompass esteem and self actualization. The biggest difference between ERG Theory and Maslow's Theory is that it appears that Maslow indicates the worker will advance in a stepwise progress, whereas Aldefer allows for the worker to fall back to a lower level if they become frustrated in attaining the next level.

With the possible exception of Maslow, these other theories have seldom been applied to actual work settings. For the most part, they have only been the subject of numerous doctoral dissertations in psychology. Also, these other theories are in conflict with a major point of Motivation-Hygiene Theory. All of them treat all of a worker's
needs as though they moved in the same dynamic direction toward satisfaction. Motivation-Hygiene Theory assumes that there are two directions to human needs. As mentioned above, Motivation-Hygiene Theory holds that the deliberate pairing of extrinsic hygiene and intrinsic motivators creates an inversion in direction-constant hygiene seeking. Both hygiene and motivators are needed in a job setting, but they must be administered separately.

Orthodox Job Enrichment

Motivation-Hygiene Theory takes employee motivation one step further than the other motivation theories. Herzberg used the findings from his original work and later research in Motivation-Hygiene Theory to develop the fundamentals of Orthodox Job Enrichment (OJE). OJE is the direct application of the principles of Motivation-Hygiene Theory. After determining the most frequent motivators appearing in numerous surveys, Herzberg described the elements of a good job, Figure 2. The basis of OJE is that management can design a job to be motivating by incorporating some of these elements. These elements provide the intrinsic rewards to a worker to allow him to become motivated. Technically, one person cannot motivate another, only allow internal motivation to be actualized.

Previous OJE projects bring to light another fundamental concept of Motivation-Hygiene Theory. Increases in performance or productivity lead to increased employee motivation and satisfaction. Changes in behavior lead to changes in attitudes. The reverse is not true. If behavior is changed, subsequent performance is also changed.

There have been many applications of OJE in the United States, the Soviet Union, and many foreign countries. Though a relatively
Figure 2. The Elements of a Good Job

1. Client Relationship
2. Feedback or Knowledge of Results
3. Unique Expertise
4. Direct Communication
5. Continued Learning
6. Personal Accountability
7. Schedule Own Work
8. Control Own Resources or Budget
small percentage of the job design and "job enrichment" projects reported in the literature have been OJE, a large percentage of these projects have incorporated the concept of Motivation-Hygiene Theory and OJE. However, only OJE projects report increases in productivity and job satisfaction. Other projects report only cost savings in decreased absenteeism and turnover. The OJE projects also report increased productivity and decreased errors, which are the most common measures of the success of an OJE project.

Although many OJE projects have been implemented in government and industry, the projects at American Telephone and Telegraph, Cummins Engines, United States Air Force Logistics Command, and Imperial Chemicals Incorporated have received the most publicity. Of these projects, the job enrichment of lab technicians at Imperial Chemicals in England is the most applicable to pharmacy. Before OJE, these people were all well treated in their jobs but did not perform well. After OJE, these jobs were enriched by giving these people control over their own resources, increased responsibility in their job and allowed them to grow in their jobs. These three projects were all judged successful.

However, successful job enriching is not limited to the United States and similar cultures. Quality circles, in Japan is more group oriented than in the United States, but integrates individual accountability. In contrast, workers in "codetermination" projects in Europe are not encouraged to be accountable for their work, only to "feel" a part of their work group, an approach similar to America's participative management, which encourages equality of ignorance rather than individual growth. Individuals in work groups, such as a pharmacist team, should be accountable and responsible for their area.
Some benefits of OJE tend to be: 1) decreased inventory costs after giving employees control over resources; 2) increased quality of products or service and fewer errors and returned goods when employees are held accountable for their own work; and 3) a general increase in productivity from motivated workers and decreases in absenteeism and turnover. But these benefits are not without costs. Training and education costs will increase if new skills are required of the new job. At the Charleston Cummins Engine plant, workers were all cross-trained to perform many jobs so that productivity does not decrease when workers are sick or on vacation. Also, extra pay will often be incumbent with increases in responsibility; not paired with each achievement, for fair treatment as a result of increased profits.

Employee motivation leading to increased performance and subsequent job satisfaction are the goals of OJE. These are sometimes in conflict with the goals of people that follow the organizational development philosophies, who are more interested in developing work groups, participative management and communication, and conflict resolution, at the expense of individual motivation. Motivation-Hygiene Theory holds that changes in the work group environment are hygienes that do not lead to increased motivation. Organizational development relates chiefly to hygiene; OJE programs deal with motivators. They should be administered separately. OJE determines performance by objective measures. However, the ultimate goal in an OJE program is to promote motivation which leads to increased performance, which ultimately leads to job satisfaction and mental health.

According to Herzberg, the productivity effects of an OJE program usually take at least a month to appear and satisfaction should not be
measured until after increased performance has been given a chance to take place. Performance is dependent upon ability. As mentioned above, if new skills are required, additional training may be necessary.

Umstodt, et al.\textsuperscript{29} described a study in which their results demonstrated an increase in employee satisfaction and productivity after the inclusion of motivators in the job, after only one week. Because of the adjustment time required for employees to the new job, Umstodt's results must be considered invalid even though productivity and satisfaction increased. Also because of the adjustment time required, initial decreases in productivity are often seen. Because an OJE program is a long range goal, it should be given the time to develop.

New programs and services consistently affect changes in hospital pharmacy. When implementing these new programs, it is often necessary to restructure the job in some way. If this is the case, the concepts of Motivation-Hygiene Theory offers a methodology to change a job so that it can be made more rewarding and those involved will be more motivated and productive in their work.\textsuperscript{19}

**Definition of Terms**

Before further discussion, terms and concepts must be understood in order to develop the objectives of this project.

*Satisfaction* and *dissatisfaction* are caused by different sets of factors and both must be considered to assure less dissatisfaction and increased satisfaction among workers. More motivators in a job should increase motivation.

*Orthodox job enrichment (OJE)*\textsuperscript{17} and the principles of Motivation-Hygiene Theory are tools managers can use to analyze the job and change the job through vertical loading, to make it more challenging and rewarding.
Vertical loading consists of adding more skill variety and more responsibility to a job, as opposed to horizontal loading, which is just adding more work for the employee to do.

Slippages are defined as events when workers temporarily find satisfaction in hygienes, hygiene slippages, or dissatisfaction from motivators, motivator slippages. Therefore the factors affecting job satisfaction or dissatisfaction do not always adhere to the guidelines presented above. For example, an employee may report satisfaction when he receives a large salary increase, a hygiene, or dissatisfaction from committing an error, negative achievement. Hygiene slippages become a problem when hygienes, i.e. socializing in the job, become the goal of work. Motivator slippages, negative motivation, are usually not serious because workers tend to learn from their mistakes. Slippages that are revealed by employees in an organization may be important problems to be addressed in the organization. In terms of Motivation-Hygiene Theory, slippages indicate that one continua is temporarily compensating for the other.

Inversions are slippages that have become permanent behavior in the organization and indicates serious long term behavior problems are developing. Inversions indicate that demand for relief of dissatisfaction is escalating. The long term use by management of hygienes to compensate for the lack of motivators is an inversion. Those workers exhibiting inversion behavior seek to obtain long term satisfaction from hygienes or relieve dissatisfaction with motivators. Hygiene needs are the "animal" instincts in all people. The hygiene dynamic is the avoidance of "pain" from the work environment. Motivators are qualities that separate humans
from animals. Motivators are based on that potential drive to be better that exists in all people.

A common inversion that is observed is the worker called a "hygiene seeker." This person attempts to achieve satisfaction through pain avoidance. It appears that the negotiation of union contracts has promoted this inversion. The union contract controls most aspects of the job environment. In many contracts, more and more hygienes are built into the job environment. However, hygienes have an escalating zero point. If hygienes are used as a motivating tool, with time it takes more and more hygienes to achieve the same level of satisfaction. Trying to achieve satisfaction solely from hygienes is analogous to narcotic addicts developing tolerance to a drug.

The Protestant work ethic is another inversion. These people do their job not for satisfaction or because they like it, but because that is what they are supposed to do. In a sense, their motivation has a zero point. Their achievements are not metabolized into growth.

A third example of an inversion is the behavior exhibited by a worker referred to as a monastic. This individual receives satisfaction from denying himself hygienes. With this employee, his achievements are not transformed into personal growth and he still suffers "pain" from the work environment because he refuses hygienes.

Union contracts often incorporate hygienes into the job but no motivators, in hopes of improving worker satisfaction and subsequent productivity. With only hygienes to give them satisfaction, the workers have become accustomed to inversion behavior. These workers do not look to the work itself to make them better. The defeating problems
with hygienes are the escalating zero point, described above, and their
short term effect - the "what have you done for me lately, boss?"
attitude. For example, it is time for annual pay increases in an organ-
ization. An employee has had a good performance evaluation and payroll
funds are available to grant this person a $2,000 per year pay increase.
The next year is a similar situation. The same employee has performed
equally well, but inflation has reduced the size of allowable pay increases
and the employee receives the top pay increase, but it is only $1,000 per
year. In the employee's mind, he has not received a $1,000 increase, but
a $1,000 reduction. 31 Salary is a prime example of using hygiene to
satisfy the employee. Not only is more money required to achieve
satisfaction, but the psychological "kick" is soon forgotten. This
concept was discussed in an article by Schneider, et al, 32 linking a
reward to performance in a personnel program. This will not lead to
motivation. Motivators do not return to a zero point as hygienes do.
It does not require more achievement to reach the same level of satis-
faction. The receipt of an advanced degree may have a more positive
affect on satisfaction than answering a drug information question for a
physician. Both events give some satisfaction and all achievements are
additive to total motivation. 33 This is why satisfaction from motivators
is more long lasting than satisfaction from hygienes.

Objectives

Because of the lack of information and experience with Motivation-
Hygiene Theory in hospital pharmacy, the preceding discussion establishes
the background information necessary to understand and apply the theory.
The objectives of this project were threefold. First, using a survey
instrument, the motivator and hygiene factors that were important to a
group of hospital pharmacists in eight separate hospitals were identified and documented. This phase provided the data to examine the differences in the motivating and hygiene job factors among hospital pharmacists, regardless of the setting.

Secondly, using the data from the survey, a profile of each pharmacy department was developed and presented and interpreted to each pharmacy director. This profile identified strong and weak areas in motivation and listed items to be considered for improving the work environment and suggestions for improving the motivation and productivity of the employees within the department. This profile was intended to form the basis for developing an OJE program, if one is necessary.

Finally, these data and profiles were examined and compared to determine if trends or differences existed among pharmacists in different demographic groups.
METHODOLOGY

A sequence of events method of data collection was used to document important motivator and hygiene factors among hospital pharmacists. The sample group consisted of staff pharmacists in six hospitals in the Salt Lake City area and two hospitals in the Portland, Oregon area. The sequence of events survey, Appendix 1, was administered to these pharmacists following brief instructions from the investigator, either individually or in groups ranging in size from two to ten people. With the cooperation of department managers, the pharmacists were allowed to complete the survey uninterrupted. The questionnaire required approximately twenty-five minutes to complete. If department staffing did not allow the entire group to take the survey together, or if extenuating circumstances such as emergency work prevented the pharmacist from completing the survey at that time, he or she was allowed to return the completed survey to the investigator at a later time. It was often necessary to return to a survey site several times so that all staff members had an opportunity to complete a survey. Survey participation was voluntary and all data were maintained anonymously.

In the sequence of events method, the pharmacists were asked to describe events when they felt exceptionally good or exceptionally bad about their present job. Space was provided in the survey for two good events and two bad events, but respondents were allowed to complete any

*a used with the permission of Dr. Herzberg
combination they wished. They were asked only that the events be real and that they try to be as objective as possible. Demographic data were also collected (Tables 2 and 3).

After the events were collected, they were analyzed, or coded, by a person unfamiliar with pharmacy or Motivation-Hygiene Theory, after brief instructions in using the criteria for various motivator and hygiene factors listed in the appendix of Work and the Nature of Man. For this task, the investigator employed a registered nurse. These codings were then verified by the investigator. Two people were used for the coding to control for observational bias and to provide a reliability check for consistency in the coding.

Coding

Explicit criteria were used to analyze or code the events. These were the same criteria used by Herzberg in the original study. Events were placed in various factor categories if the descriptions in the events corresponded to the criteria for that factor. Very often, events fit into more than one factor. Events describing motivators were coded into one of the following categories: Achievement, recognition, the work itself, responsibility, advancement or growth. Achievement dealt with successful completion of a task, solving a problem or providing information to a physician. Negative achievement or failure was a slippage against achievement but followed the same criteria. If the description of an event also mentioned that the person had been recognized for the achievement by someone else, the event was also coded as recognition for achievement. This recognition could come from any source. Before an event was coded as recognition for achievement,
achievement had to have been realized. Negative recognition for achievement were events of criticism or blame by a supervisor or physician, or the act of admitting an error to someone else.

The work itself was used if people mentioned that they were satisfied or dissatisfied with their job because of something that was an integral part of the job, such as filling and checking unit dose carts.

Feelings relating to the presence or absence of adequate responsibility or authority in the job were coded under responsibility. However, if the person felt dissatisfaction because his job lacked the authority to complete a required task in the job, this event was also placed in the category of company policies and administration.

Changes in position within an organization were placed under advancement. Lateral moves within the organization with increased responsibility but no increase in position were coded as responsibility.

The perception of an opportunity for increased personal or professional growth was coded as growth. In these events, the respondent felt that he or she was a better person because of the job. Negative growth was used when the person felt there were educational or other barriers in the way of their personal improvement.

Events describing hygienes were coded into one of the following categories: Company policies and administration, working conditions, interpersonal relations, supervision, salary, status or security. Company policies and administration involved events where the respondent described the harmful or beneficial effects of company policies, especially in the personnel areas. Events in this factor also involved the confounding effects of an inadequate organizational structure, such as the incident wherein company policy restricted personal authority in the job.
Description of incidents of adequate or inadequate staffing to accommodate existing work loads, the presence or absence of proper equipment to do the job, lighting or other physical characteristics of the workplace were all events coded under working conditions.

Many events involved more than one person and could be coded interpersonal relations. But this factor was only used when there was actual mention of good or bad feelings about the job as a result of interactions with another person. These interactions were on a professional or social level with other staff, such as with a physician or a fellow worker.

Events coded as supervision were those independent of interpersonal relations. These events dealt with the pharmacist's perception of competence or incompetence, fairness or unfairness of a supervisor. Another aspect of this category was how easy it was to work with this person.

Salary events dealt with good or bad feelings concerning the compensation the employee received. In good events, when a salary increase accompanied an advancement or other motivator, the event was coded salary only when the description of the event mentioned that the good feelings were due to the salary increase rather than the advancement.

Job status was used only if, in the description of the event, the person mentioned feelings toward the job brought about by tangible items such as an office, a secretary, or the use of a company car. A similar factor, job security, was used only if words such as tenure, seniority, or company stability were used.

Initially, the events from each individual survey site were analyzed. After each event was analyzed and coded, the event was placed in one of
the various hygiene or motivator categories. With the events grouped into factors, the frequency with which a factor appeared in the sample was calculated. The frequency data were used to develop a graphic profile for each group (Figure 4 through 9) displaying each factor that was described by an event in the sample and the frequency with which it occurred. A minimum of ten events/five participants per site was required for a profile to be developed. These profiles indicated which intrinsic (motivators) and extrinsic (hygienes) job factors influenced job satisfaction and dissatisfaction the most in each group. These were the factors that would be addressed in an orthodox job enrichment (OJE) or a hygiene program. The profiles also revealed the important slippages within each group.

The collection and classification of these data provided the basis for the second objective. The profile that was developed, along with a report outlining potential problems and recommendations developed from the analysis of the events was presented and discussed with each pharmacy director. The recommendations focused on ways to improve the pharmacist's job in each situation using separate hygiene and motivator programs. The directors received only a summary of the events from the survey of his department so that the pharmacists participating in the survey and their responses remained anonymous.

Statistical manipulation of the data was limited to the calculation of the frequency data for the graphic profile of each organization. This determined the relative importance of each job factor within each group. There was no scoring involved in the data collection. The fact that an event was reported by one of the pharmacists in the sample indicated that it was important to that person and should be considered by management.
The frequency with which a factor occurred did not indicate its overall importance. However, within an individual organization, a higher frequency may indicate the need for prioritizing factors for an OJE program. Because of the differences in the size of the employee groups in the sample hospitals, degree of cooperation and support provided by the department directors and other confounding variables and biases, other statistical tests would not provide meaningful information.35

The profiles for each of the participating hospitals were examined for differences in the order the factors appeared in both motivators and hygienes. Comparisons of responses between men and women participants and centralized and decentralized unit dose operations were made.
RESULTS

The sample for this study consisted of sixty-four hospital pharmacists from eight hospitals in Salt Lake City, Utah and Portland, Oregon. The sample involved a wide variety of hospital settings: university teaching hospitals, private teaching hospitals, a private community hospital, a government hospital, a unionized hospital and a specialty hospital. A comparative summary of hospital size and services provided in each of the sample hospitals appears in Table 1. One hospital had only one of six staff members respond and another had three of six. These hospitals did not have large enough participation for an individual profile to be developed. However, the events reported by these four pharmacists were included in the analysis of the total sample. The six hospitals with adequate participation to prepare a profile were designated A through F, and are described in Figures 4 through 9.

Anonymity was maintained for all survey data. The directors of the six hospitals with sufficient participation received only a summary of the events accumulated from their staff. The overall participation rate was 64 of the 107 pharmacists (59.8 percent) who were members of the pharmacy staffs in the sample hospitals. Despite assurances of anonymity, some pharmacists refused to participate in the survey, fearing reprisal from their director. Other reasons for not achieving 100 percent response were: the survey was too difficult to complete, extended vacations by staff members, and working the 11 p.m. to 7 a.m. shift.
<table>
<thead>
<tr>
<th>TABLE 1. Comparative Summary of Hospital Size and Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOSPITAL TYPE</td>
</tr>
<tr>
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</tr>
<tr>
<td>Private Hospital</td>
</tr>
<tr>
<td>Government Hospital</td>
</tr>
<tr>
<td>University Hospital</td>
</tr>
<tr>
<td>University-affiliated</td>
</tr>
<tr>
<td>NUMBER OF PATIENT BEDS</td>
</tr>
<tr>
<td>&lt;200</td>
</tr>
<tr>
<td>201-400</td>
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<tr>
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<tr>
<td>&gt;500</td>
</tr>
<tr>
<td>SERVICES AVAILABLE</td>
</tr>
<tr>
<td>Centralized UD Operations</td>
</tr>
<tr>
<td>Decentralized UD Operations</td>
</tr>
<tr>
<td>Centralized Floor Stock</td>
</tr>
<tr>
<td>Centralized I.V. Admixture</td>
</tr>
<tr>
<td>Drug Information</td>
</tr>
<tr>
<td>Outpatient Services</td>
</tr>
<tr>
<td>Computer assistance</td>
</tr>
<tr>
<td>Rotating staffing areas</td>
</tr>
<tr>
<td>Fixed staffing areas</td>
</tr>
</tbody>
</table>
A summary of the demographic characteristics of the sample is contained in Tables 2 and 3. When collecting these data, the investigator asked for a response within a range. Four individuals did not entirely complete the demographic section of the survey.

As indicated in Tables 2 and 3, 33 of 61 pharmacists who provided demographic data were less than age 30; 39 of 60 had been in their present position less than five years and 55 had a bachelor of science degree as the highest professional degree attained. Nearly equal numbers of people worked in both centralized and decentralized unit dose distribution, 30 and 25 respectively. Individuals working in one hospital provided a combined type of service wherein some of the patient care areas were served by centralized and some were served by decentralized.

Profiles were developed from collected data and the results were reported to the director of each of the six hospitals. The individual profiles of the data for the hospitals appear in Figures 4 through 9.

**Motivators/Satisfiers**

Achievement was the most frequent source of satisfaction for this sample, being mentioned in 47.5 percent of the satisfying events. These were events when the pharmacist had an opportunity to apply his knowledge and use his skills. Some specific events in this category were answering drug information questions for a physician, solving a pharmacokinetic problem, or being able to have input into medication orders. However, in only one half of these events, 26.6 percent versus 47.5 percent, did someone else, a nurse, physician or a supervisor, give the reporting person any recognition or feedback. Most achievement was self-realized by the pharmacist. This was a deficiency revealed by the survey. Pharmacists surveyed appear to lack feedback about their performance
**TABLE 2. Summary of Demographic Characteristics of the Sample**

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>Misc</th>
<th>TOTALS</th>
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<tbody>
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<td>8</td>
<td>9</td>
<td>0</td>
<td>8</td>
<td>43</td>
</tr>
</tbody>
</table>

**TYPE OF SERVICE**

- **Centralized**: 17
- **Decentralized**: 5
- **Combination**: 9

**SEX**

- **Male**: 5, 5, 3, 8, 6, 9, 3, 40
- **Female**: 0, 4, 11, 2, 2, 1, 1, 20
- **no answer**: 0, 0, 3, 0, 1, 0, 0, 4

**AGE**

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<th>26-30</th>
<th>31-35</th>
<th>36-40</th>
<th>41-45</th>
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**FOOTNOTE #1**: At two hospitals, small size of participation precluded development of profile.
TABLE 3. Summary of Professional Experience of the Sample

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<thead>
<tr>
<th>HOSPITAL:</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>Misc.</th>
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<td>11</td>
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<td>6</td>
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<table>
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<td>1</td>
<td>1</td>
<td>4</td>
<td>0</td>
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<td>16-20</td>
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<tr>
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<td>0</td>
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<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

FOOTNOTE #1: At two hospitals, small size of participation precluded development of profile.
in the job. The other motivator factors combined accounted for only 14.3 percent of the satisfying events. These two factors, achievement and recognition for achievement, accounted for 74.1 percent of the satisfying events.

Among the six hospitals in the sample, and the comparisons between men and women respondents and pharmacists working in centralized and decentralized unit dose services, there were no observable differences among the motivators. Hygiene slippages, satisfying events involving hygiene factors, were only 11.6 percent of satisfying events. Among the hygiene slippages there were no differences in any of the factors that appeared large enough to warrant discussion.

There is an inverse relationship between the frequency of a motivator factor and its importance as a motivator. Herzberg states that professional and/or personal growth is the most important motivator, a psychological goal for all of us. However, as shown by this sample, it was the least frequently reported motivator. Achievement is the most frequently reported motivator, but only a few achievement situations can be transformed into real growth.

Hygienes/Dissatisfiers

The hygiene results are on the left side of Figures 3 through 9. The main sources of dissatisfaction were interpersonal relations, company policies and administration and supervision. Description of events under interpersonal relations, in this sample, related almost entirely to the abusive people the pharmacists reported dealing with routinely: nurses, physicians and especially patients. Pharmacists in Hospital A went on to say in describing the events that they disliked
being a pharmacist because dealing with abusive people was part of the job. For this reason, these situations were coded both interpersonal relations and negative work itself. For this sample, the frequency range of dissatisfying events in interpersonal relations was 53.8 percent for Hospital A to 14.3 percent in Hospital D. Both of these hospitals have a decentralized distribution system.

Dissatisfaction with department policies involved events relating to lack of specific policies and procedures that lead to ambiguity in the job. Lack of appropriate job descriptions and performance evaluations and other personnel policies, absence of structured orientations and training for new pharmacists or technicians which lead to less than competent staff members were frequent problems reported by respondents in Hospital C. The absence of good personnel policies was mentioned at least once in each hospital except Hospital D.

Events coded as supervision and/or negative recognition for achievement often dealt with pharmacy managers jumping to conclusions, using inappropriate criticism and casting blame without being certain of the details of the situation. This type of event was reported in all hospitals except Hospitals A and D.

Other motivator slippages coded as negative recognition for achievement were related to negative achievement. Dissatisfaction from negative achievement centered around the commission of errors. When pharmacists reported the commission of an error, they described bad feelings toward themselves. Greater dissatisfaction occurred when after an error was committed, the pharmacists had to explain the error to a nurse or physician. The incidence of dissatisfying events related to negative achievement ranged from zero percent in Hospital A to 36.8 percent
in Hospital F. Hospital A is a smaller hospital with a decentralized unit dose service, while Hospital F is a larger hospital with a centralized unit dose operation. The smaller, decentralized unit dose operation in Hospital A may provide an environment in which errors are less likely to occur and a more congenial environment for feedback.

Three events describing excessive workloads during the implementation of a new program in Hospital C, and an event of unfavorable scheduling in Hospital D, were categorized under working conditions. This type of situation may be dissatisfying and frustrating to pharmacists because the heavy workloads increase the possibility for commission of errors and they do not have the time to achieve in other areas.

Demographic Comparison

After analyzing the behavior of the entire sample, a comparison was made between men and women respondents, Figures 10 and 11, and pharmacists working in centralized and decentralized unit dose operations, Figures 12 and 13. For both of these comparisons, the magnitude of the factors in the profiles appeared essentially the same and similar to the composite profile, Figure 3. All three profiles appeared to be very similar to the profile of the assembly line worker described by Herzberg.36 These profiles indicated there were ample opportunities for the pharmacists to achieve, (49.1 percent of satisfying events for men and 44.6 percent for women dealt with achievement) and these achievements were often recognized by others, (26.4 percent of satisfying events involved recognition for both men and women). The results for achievement and recognition for achievement for centralized and decentralized unit dose operations were 49.3 percent and 25.4 percent, and 43.7 percent and 29.6 percent respectively. While these are motivators, they are of
short duration and high frequency. Among these pharmacists, their hygiene needs appeared to be met. However, with other motivators, including growth potential lacking in the job, the employer may have used hygiene to compensate for the lack of other motivators. This was true in all of the groups that were compared. Large, unexplainable differences in hygiene slippages were not seen in either comparison.

The hygienes and dissatisfiers did show some differences. In the comparison of men and women, the order of highest to lowest frequency of hygiene factors was slightly different, but the magnitudes of the frequencies in each of the individual factors showed no differences. This may be due in part to the difference in the number of men and women participating, 40 and 20 respectively.

The numbers of pharmacists working in centralized and decentralized unit dose operations were more evenly matched, 30 and 25 respectively. The decentralized group had a smaller percentage of dissatisfying events dealing with supervisors, 7.1 percent than did the centralized group, 17.1 percent. This difference may have been due to the fact that the decentralized pharmacist has more autonomy and less contact with a supervisor. This was the only difference that appeared to have a possible explanation.

A further comparison of the two groups showed that the centralized group had a smaller frequency of negative achievement, but a greater frequency of negative recognition for achievement than the decentralized group. This difference may have been due to more opportunities for feedback for the decentralized group, however with a larger skill variety in their job, there were more opportunities to fail.
The directors were provided a copy of the profile for their staff. This profile was accompanied with an explanation and discussion of the responses and slippages in a given category. An example of a typical report appears in Appendix 2.
Figure 3. Profile of the Entire Pharmacists Sample

NEGATIVE MOTIVATORS: >>>>>> MOTIVATORS

ACHIEVEMENT

RECOGNITION FOR ACHIEVEMENT

THE WORK ITSELF

GROWTH

ADVANCEMENT

RESPONSIBILITY

HYGIENES: SATISIFIERS

INTERPERSONAL RELATIONS

POLICIES & ADMINISTRATION

SUPERVISION

WORKING CONDITIONS

SALARY

LEGEND: Arrows indicate appropriate response
Blank bars indicate slight response
Bar magnitude denotes percentage of sample responding in each factor.
It is meant to show a relationship between factors rather than an accurate graphic representation of the response.
Figure 4. Organizational Profile: Hospital A

**NEGATIVE MOTIVATORS**

- 60% 50% 40% 30% 20% 10% 0 10% 20% 30% 40% 50% 60%

**MOTIVATORS**

- 40% 30% 20% 10% 0 10% 20% 30% 40% 50% 60%

**ACHIEVEMENT**

- 45.0%

**RECOGNITION FOR ACHIEVEMENT**

- 30.0%

**THE WORK ITSELF**

- 20.0%

**RESPONSIBILITY**

- 7.7%

**HYGIENES**

- 50% 40% 30% 20% 10% 0 10% 20% 30% 40% 50% 60%

**SATISFiers**

- 30.8%

**INTERPERSONAL RELATIONS**

- 53.8%

**SALARY**

- -5.0%

**LEGEND:**

- Arrows indicate appropriate response
- Blank bars indicate slippage
- Bar size indicates percentage of sample responding in each factor.

It is meant to show a relationship between factors rather than an accurate graphic representation of the response.
Figure 5. Organizational Profile: Hospital B

NEGATIVE MOTIVATORS: --- MOTIVATORS
60% 50% 40% 30% 20% -10% 0 10% 20% 30% 40% 50% 60%

-16.7% 16.0% 56.0%

ACHIEVEMENT

-20.8% 8.0%

RECOGNITION FOR ACHIEVEMENT

-4.2% 4.0%

ADVANCEMENT

-8.3% 4.0%

GROWTH

-4.2% 14.0%

THE WORK ITSELF

RESPONSIBILITY

HYGIENES: SATISFIERS

60% 50% 40% 30% 20% +10% 0 -10% 20% 30% 40% 50% 60%

20.8% 4.0%

INTERPERSONAL RELATIONS

16.7% 4.0%

SUPERVISION

4.2% 4.0%

SALARY

4.2% -4.0%

WORKING CONDITIONS

POLICY & ADMINISTRATION

LEGEND: Arrows indicate appropriate response
Blank bars indicate absence of response
Size of bar indicates percentage of sample responding to each factor.
It is not intended to show a relationship between factors rather than an accurate graphic representation of the response.
Figure 6. Organizational Profile: Hospital C

NEGATIVE MOTIVATORS<-- ==---> MOTIVATORS

60% 50% 40% 30% 20% -10% 0 +10% 20% 30% 40% 50% 60%

-6.7% ---

-5.9% ---

-6.7% ---

HYGIENES<-- ==---> SATISFIERS

60% 50% 40% 30% 20% +10% 0 -10% 20% 30% 40% 50% 60%

31.1% """"

17.8% """

17.0% """

9.9% """

2.4% """

POLICY & ADMINISTRATION

SUPERVISION

INTERPERSONAL RELATIONS

WORKING CONDITIONS

SALARY

LEGENDS: Arrows indicate appropriate response
Blank bars indicate nil/none
Bar magnitude denotes percentage of sample responding in each factor.
It is meant to show a relationship between factors rather than an
accurate iconic representation of the response.
Figure 7. Organizational Profile: Hospital D

NEGATIVE MOTIVATORS<-- ==» MOTIVATORS
60% 50% 40% 30% 20% -10% 0 +10% 20% 30% 40% 50% 60%

-23.8% ACHIEVEMENT
-14.3% RECOGNITION FOR ACHIEVEMENT
-9.5% ADVANCEMENT

HYGIENES<-- ==» SATISFIERS
60% 50% 40% 30% 20% +10% 0 -10% 20% 30% 40% 50% 60%

19.0% POLICY & ADMINISTRATION
14.3% INTERPERSONAL RELATIONS
14.3% WORKING CONDITIONS
4.8% SUPERVISION
-3.8% SALARY

LEGEND: Arrows indicate appropriate response
Blank bars indicate slippage
Bar magnitude denotes percentage of sample responding in each factor.
It is meant to show a relationship between factors rather than an
accurate syntactic representation of the response.
Figure 8. Organizational Profile: Hospital E

NEGATIVE MOTIVATORS<-- ====> MOTIVATORS
50% 50% 40% 30% 20% -10% 0 +10% 20% 30% 40% 50% 60%

Achievement

-5.3% >>>> 16.0%
Recognition for Achievement

-5.3% >>>> 8.0%
The Work Itself

-5.3% >>>> 8.0%
Responsibility

> 4.0%
Advancement

> 4.0%
Growth

HYGIENES << == >> SATISFIERS
50% 50% 40% 30% 20% +10% 0 -10% 20% 30% 40% 50% 60%

Policy & Administration

26.3% <<<<<<<<<<<<<

Interpersonal Relations

26.3% <<<<<<<<<<<<< -8.0%

Working Conditions

15.0% <<<<<< -4.0%

Supervision

10.5% <<

Salary

5.3% << -9.3%

LEGEND: Arrows indicate appropriate response
Blank bars indicate slipage
Bar magnitude denotes percentage of sample responding in each factor.
It is meant to show a relationship between factors rather than an accurate graphic representation of the response.
Figure 9. Organizational Profile: Hospital F

NEGATIVE MOTIVATORS<-- == > MOTIVATORS

6% 5% 4% 3% 2% -1% 0 +1% 2% 3% 4% 5% 6%

-10.5%       ===> 35.0%

ACHIEVEMENT

-36.8%        ===> 25.0%

RECOGNITION FOR ACHIEVEMENT

HYGIENES<== == > SATISFIERS

6% 5% 4% 3% 2% -1% 0 +1% 2% 3% 4% 5% 6%

21.1%       ===>

SUPERVISION

21.1%       ===>

INTERPERSONAL RELATIONS

10.5%       ===>

POLICY & ADMINISTRATION

5.0%       ===>

WORKING CONDITIONS

LEGEND: Arrows indicate appropriate response.
Blank bars indicate mismatch.

Bar magnitude denotes percentage of sample responding in each factor.
It is meant to show a relationship between factors rather than an
accurate graphic representation of the response.
Figure 10. Profile of Male Respondents

NEGATIVE MOTIVATORS<-- ====>> MOTIVATORS
60% 50% 40% 30% 20% 10% 0 10% 20% 30% 40% 50% 60%

-12.3% | 49.1% ACHIEVEMENT

-15.3% | 26.4% RECOGNITION FOR ACHIEVEMENT

-6.1% | 6.4% THE WORK ITSELF

GROWTH

ADVANCEMENT

RESPONSIBILITY

HYGIENES<== === Satisfiers

60% 50% 40% 30% 20% 10% 0 -10% 20% 30% 40% 50% 60%

27.6% | -2.8% INTERPERSONAL RELATIONS

POLICY & ADMINISTRATION

13.3% | -0.9% SUPERVISION

5.1% | -1.9% WORKING CONDITIONS

2.0% | -1.9% SALARY

LEGEND: Arrows indicate appropriate response. 
Blown bars indicate increase. 
Bar magnitude denotes percentage of sample responding in each factor. 
It is meant to show a relationship between factors rather than an accurate graphic representation of the response.
Figure 11. Profile of Female Respondents

NEGATIVE MOTIVATORS ----> MOTIVATORS
60% 50% 40% 30% 20% 10% 0 10% 20% 30% 40% 50% 60%

-7.6% --- >>>>>>>>>>>>>>>>>>>>>>>> 44.4%

ACHIEVEMENT

-11.3% --- >>>>>>>>>>>>>>>>>>>>>>>> 26.4%

RECOGNITION FOR ACHIEVEMENT

--- 9.4%

GROWTH

-7.6% --- 7.6%

THE WORK ITSELF

1.8%

ADVANCEMENT

-1.7%

RESPONSIBILITY

HYGIENES ----> SATISIFIERS
60% 50% 40% 30% 20% 10% 0 10% 20% 30% 40% 50% 60%

22.6% <<<<<<<<

POLICY & ADMINISTRATION

18.9% <<<<<<<< -7.1%

INTERPERSONAL RELATIONS

15.1% <<<<<<<< -3.4%

WORKING CONDITIONS

13.2% <<<<<<<< -1.6%

SUPERVISION

1.8% <<< 5.4%

SALARY

---

LEGEND: arrows indicate appropriate response
---- blank bars indicate silence
Bar height denotes percentage of female respondents in each factor.
It is meant to show a relationship between factors rather than an
accurate graphic representation of the response.
Figure 12.
Profile of Pharmacists Working in Centralized Unit Dose Operation

NEGATIVE MOTIVATORS ——— ——— ——— ——— MOTIVATORS
60% 50% 40% 30% 20% 10% 0 10% 20% 30% 40% 50% 60%

-8.6% ——— ——— ——— ——— ——— 49.3%

-15.7% ——— ——— ——— 25.4%

THE WORK ITSELF

-4.3% ——— 3.0%

RESPONSIBILITY

GROWTH

RECOGNITION FOR ACHIEVEMENT

ACHIEVEMENT

HYGIENES ——— ——— Satisfies
60% 50% 40% 30% 20% 10% 0 -10% 20% 30% 40% 50% 60%

PRACTICAL ADMINISTRATION

POLICY & ADMINISTRATION

24.3%

-21.4%

-6.0%

IMPERSONAL RELATIONS

SUPERVISION

-4.3%

-17.1%

-3.0%

-7.1%

-3.0%

WORKING CONDITIONS

-1.4%

-3.0%

SALARY

LEGEND: Arrows indicate appropriate response

Black bars indicate slipper

For each factor denotes percentage of sample responding in each factor.

It is meant to show a relationship between factors rather than an accurate graphic representation of the response.
Figure 13.
Profile of Pharmacists Working in Decentralized Unit Dose Operation

NEGATIVE MOTIVATORS...> MOTIVATORS
60% 50% 40% 30% 20% 10% 0 +10% 20% 30% 40% 50% 60%

-12.3% >>>>>>>>>>>>>>>>>>>>>>>> 43.7%

-7.1% >>>>>>>>>>>>>>>>>>>>>>>> 29.6%

-6.9% >>>> 8.4%

THE WORK ITSELF

2.8%

GROWTH

2.8%

ADVANCEMENT

2.8%

RESPONSIBILITY

HYGIENES...> SATISFYERS
60% 50% 40% 30% 20% +10% 0 -10% 20% 30% 40% 50% 60%

28.6% <<<<<<<<<<<<<<<<< -2.8%

INTERPERSONAL RELATIONS

16.1% <<<<<<<<<

POLICY & ADMINISTRATION

10.7% <<<<<< -2.8%

WORKING CONDITIONS

7.1% <<<<

SUPERVISION

1.8% -4.2%

SALARY

LEGEND: Arrows indicate approximate response

Bars above indicate magnitude

Bar at midpoint denotes percentage of sample responding in each factor.

It is meant to show a relationship between factors rather than an accurate scientific representation of the response.
DISCUSSION

One way to validate the results of a study is with replication. This has already been done with many Motivation-Hygiene studies. Statistical tests are useful in all scientific research, but questionnaires about people's feelings normally do not produce valid results. Human feelings and attitudes are biased and too arbitrary to be reduced to a number on a scale; a number which has little meaning by itself.

The remarks made concerning the results of this study are based on an understanding of Motivation-Hygiene Theory. The distribution of motivators and hygienes in the composite profile for the entire sample, Figure 3, indicates normal behavior, which is defined as deriving satisfaction from motivator factors whereas hygiene factors are responsible for most of the dissatisfaction. Figure 3 indicates few hygiene slippages for the entire sample. Inversion behavior is considered abnormal behavior, deriving satisfaction from pain avoidance.

The major objective of this study was to identify job factors that led to satisfaction (motivators) and dissatisfaction (hygienes) for a population of hospital pharmacists and to generalize the results to all hospital pharmacists. As mentioned above, because of the differences and biases among the groups, these comparisons are not totally valid. While job satisfaction is an important management consideration in hospital pharmacy, few studies have been conducted to identify the sources of poor motivation among hospital pharmacists. Those that have been done often presented their results but offered no solutions to the
problem. Motivation-Hygiene Theory offers a solution. By means of the sequence of events survey and the subsequent organizational profile, Motivation-Hygiene Theory identifies the problem areas for motivation that need to be addressed.

There are some criticisms of the sequence of events method. When working in the area of human behavior, analysis of answers is seldom objective; however there is high interpreter reliability in coding events using Herzberg's criteria. This study will not prove or disprove Herzberg's Motivation-Hygiene Theory. It can only support or cast doubt on this structured explanation of human behavior.
CONCLUSIONS AND RECOMMENDATIONS

The results of this study support Herzberg's Motivation-Hygiene Theory and help to explain the deviations in human behavior in a specific work place. This study did indicate that the pharmacists in this sample, regardless of how the results were analyzed and compared, had few motivators in their job. Rather than using hygienes to increase satisfaction, more motivators should be added to the job. An Orthodox Job Enrichment program is an alternative to explore. Major sources of dissatisfaction identified in this sample were: lack of feedback on communication from management, and lack of complete policy and procedure manuals, including personnel policies. The feedback must be genuine. Managers should praise the event, not the person and avoid using "atta boys" as feedback. This type of feedback is perceived as evaluative and becomes another reward to strive for. The lack of satisfaction among the pharmacists in this survey appeared to stem from a perceived lack of growth potential in their job.

The solution offered by Motivation-Hygiene Theory is referred to by Herzberg as Orthodox Job Enrichment (OJE). After performing many sequence of events surveys, Herzberg identified the elements of a good job. These elements appeared in Figure 2. When these elements appear in a job, there is usually greater satisfaction among the workers. Reports of shift rotation appeared in every hospital surveyed. Job rotation and task variety are hygienes, working conditions, not motivators. The way for managers to distinguish between hygiene and
motivator factors is to consider how long the effect of a change in the factor will last or ask if the change affects how well people are treated or how well the people are utilized. To improve motivation, the job content not the job context, has to be changed. The theory states that managers need to utilize the pharmacists more effectively.

In the sample population, there were very few pharmacists who mentioned a working, or client relationship with a physician. The physician's order is the one thing pharmacists depend upon to initiate the performance of a task. Also, few pharmacists described an event when they felt satisfaction because they were recognized for a particular expertise within their own staff. Both of these related elements are very important for satisfaction.

If a client relationship is established between the pharmacist and the physician(s) in a particular area, such as oncology or pediatrics, a direct line of communication is also established. For example, if a problem arises in oncology with the administration of chemotherapeutic agents, the pharmacists and physician can meet together to solve the problem, rather than going through political channels as is often the case in hospitals with a well established medical staff. The problem can be dealt with on a personal level. Only the people affected by the problem solve the problem.

This arrangement also lends itself to three other elements. If a pharmacist has established a client relationship in a specialty area, this pharmacist may concentrate his continuing education and learning in this area and become the staff expert. The client relationship also provides better feedback to the pharmacist. This feedback is also more spontaneous and less evaluative. As the results of the survey indicate,
feedback and knowledge of results were very important to pharmacist satisfaction. Adding this series of motivators could do much to improve pharmacist satisfaction with his job. One pharmacist in Hospital D was in such a position. It has been observed that decentralized pharmacy services do much to facilitate the establishment of a client relationship among staff pharmacists. These relationships need to be strengthened.

Incorporating these elements into a pharmacist's job could lead to a more satisfied and productive pharmacist. According to Herzberg, all pharmacists should be given the opportunity to be in this type of position. However, not all pharmacists may want to be motivated. These individuals may be satisfied just doing their job and collecting their pay check. OJE will not work on these individuals.

When changing a job by adding motivators, such as implementing a new program or service, one must remember that performance and subsequent satisfaction are linked to ability. For example, if a department wants to implement a pharmacokinetic program and the staff is unable to perform the necessary calculations, rather than being an achievement motivator and increasor of satisfaction, it would serve as horizontal loading and would be a dissatisfier.

Some directors may believe that they have a satisfied staff because they have low staff turnover. While it is true that low turnover can be a sign of a satisfied staff, it also may be due to low mobility in the local job market. Turnover figures should be analyzed before using them as an absolute measure of satisfaction. This holds true for other indicators of poor motivation, such as increasing error rates and absenteeism.
Because Motivation-Hygiene Theory is unique in the field of job attitudes, many people do not understand this complex theory of behavior. People have difficulty understanding that hygiene and motivators are equally important in the job. Many believe that because motivators lead to satisfaction and satisfaction is good, then motivators must be more important than hygienes. This is not true. An effective hygiene program to decrease the amount of dissatisfaction from the job environment is just as important as a job enrichment program that adds motivators to the job content. Workers strive to increase satisfaction and decrease dissatisfaction at the same time.

According to Herzberg, many managers employ the same techniques as animal trainers. They use a reward to entice the employee to do a job. Managers use the worker's "pain" to move him to work. Rather than increasing the size of the reward to increase satisfaction, managers should design a job that provides its own intrinsic rewards to allow people to become motivated. Managing motivated people may be more difficult than moving people. In many jobs, managers are only checkers. An Orthodox Job Enrichment program does not do away with managers, by delegating more responsibility to the employee, but eliminates the checking functions they perform. In this manner, an Orthodox Job Enrichment program not only enriches the pharmacist's job, but the manager's job as well.

Motivation-Hygiene Theory and Orthodox Job Enrichment cannot be applied to all people or all jobs. Some jobs are so boring, they should be automated, if possible. However, pharmacy is not one of these jobs. The dispensing aspect of pharmacy may be automated but pharmacists also
provide service. When managers use the elements of a good job to enrich the job of their staff, satisfaction and productivity have been shown to increase.19

The sequence of events method is the most reliable way to identify factors within a job and its environment that lead to job satisfaction and dissatisfaction. Varying degrees of satisfaction and dissatisfaction are present in all jobs. Managers are charged with the duty to increase productivity within their organization. The concepts of Motivation-Hygiene Theory and Orthodox Job Enrichment are management tools that are available to help increase productivity by increasing job satisfaction and decreasing dissatisfaction.
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31. Herzberg F. The managerial choice. p.304.


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APPENDIX 1.
THE SEQUENCE OF EVENTS SURVEY

INSTRUCTIONS

This survey is designed to determine and document specific events which cause you to feel very strongly about your job. It utilized the principles of Herzberg's Motivation-Hygiene Theory. The information gathered will be used to identify factors within your job that you feel need improvement and this information will be presented to the management of the department with suggestions on how to change the environment in which you perform your job and the job content. There is no need to write your name on the survey. The data will be reported in aggregate and anonymously.

Please think of a time when you felt exceptionally good or bad about your present job. This can either be a short-range sequence, which would be a specific event in time, although the feelings from that event may last a long time, or a long-range sequence, which is a period of time during which you consistently had high or low feelings about your job. This long-range sequence must, however, have a beginning and an end. These events should center around events on the job - the people you work with, tasks performed in the job, achievements, your responsibilities, etc. Give as complete a description of the event as you can concerning what actually happened. The event you select
must:

1) be a real event that takes place within a time frame, has a beginning and an ending;

2) be described as objectively as possible;

3) involve exceptional feelings that directly affected how you felt about your job.

Please try to describe two good events and two bad events. After you have described the event, answer the five questions that follow the event, as they apply to the event.

THANK YOU FOR YOUR COOPERATION AND HELP
Describe a good event - an event when you felt exceptionally good about your job.

1. How long ago did this event happen? _________________________________

2. Why do you think you felt the way you did about what happened?

3a. Did these feelings affect the way you did your job? Please elaborate.

3b. How long did these feelings last? _________________________________

4. Did this event affect you personally? (such as relations with others, or perhaps affect your health in some way). Explain.

5. Did this affect the way you felt about your profession?
Describe a bad event - an event when you felt exceptionally bad about your job.

1. How long ago did this event happen? ________________________________

2. Why do you think you felt the way you did about what happened?

3a. Did these feelings affect the way you did your job? Please elaborate.

3b. How long did these feelings last? ________________________________

4. Did this event affect you personally? (such as relations with others, or perhaps affect your health in some way). Explain.

5. Did this affect the way you felt about your profession?
DEMOGRAPHIC DATA

1. Sex: Male ____    Female ____


3. Year of graduation from pharmacy school ______

4. Pharmacy degree: BS____ MS____ Pharm. D. ____ other ____

5. Years at your present job: less than one year ____; 1-5 years ____; 6-10 years ____; 10+ years ____

6. Check the type of pharmacy service in which you work:
   a. Centralized individual prescriptions ______
   b. Centralized unit dose ______
   c. Decentralized unit dose ______
   d. Combination of centralized and decentralized unit dose ______
      (i.e., part of hospital serviced by each method)
   e. Other (explain) ____________________________________________
APPENDIX 2 - TYPICAL REPORT TO DIRECTOR

These are the results of the survey of seventeen of your staff pharmacists, using the fundamentals of Herzberg's Motivation-Hygiene Theory and a sequence of events survey. I have tried to be as objective as possible in my analysis of the data.

The analysis of the events described by the group suggests that the group as a whole exhibit normal behavior; normal defined as deriving satisfaction from job motivators and vice versa.

Definition of Terms

Motivation-Hygiene Theory is a theory of human behavior and motivation that assumes two sets of factors involved in job satisfaction and dissatisfaction - motivators and hygienes. Both sets of factors operate simultaneously. Absence of hygiene factors, or if you prefer maintenance factors, lead to dissatisfaction on the job. Hygiene factors include company policies, salaries, interpersonal relations and working conditions. Hygiene factors are usually short term and need constant reinforcement from management to keep dissatisfaction at a minimum.

On the other side are motivators. Presence of these factors in a job lead to increased job satisfaction and increased performance. These are the content of the job like achievement, responsibility, recognition, the work itself and growth. Motivation is internally generated within the employee and produces more long term results for the department.

When the employees get satisfaction from hygiene or dissatisfaction from motivators, these events are called slippages. These are usually
short term. When they become more long term, especially hygiene slippages, employees have become accustomed to KITA ("kick in the pants") or movement management - jumping for the carrot or responding to "atta boys."

Herzberg suggests using orthodox enrichment to make jobs more challenging by incorporating ingredients of a good job into a job where these ingredients are lacking and employees are only moved, not motivated.

The attached organization profile I have developed for the pharmacists responding to the survey is very similar to the profile of the assembly line worker described by Herzberg. This type of profile indicates that there is little responsibility or chance for growth in the job, only a few opportunities for achievement. This has appeared in other pharmacist groups I have surveyed.

Attached to this report is a "comparison of satisfiers and dissatisfiers" and a graphic profile. These sheets display the frequency in which various factors represented by different events occurred. On both sheets, all factors to the left of the vertical line indicate dissatisfying events. Events to the right of the line indicate satisfying events. Slippages are indicated by shaded bars.

Hygiene

Prior to the survey, I was very interested in the outcome of the hygiene factors here. This is because your hospital is the only hospital in my sample where the pharmacy staff is part of a union agency shop. A union agency shop is a situation where the employee pays a fee, either union dues or a equal compensation, regardless of union membership status. The reason for my interest is that most all hygiene factors are controlled by the union contract: Benefits, working conditions, grievence procedures,
etc. When trying to improve a job setting, union negotiators stress hygienes, not motivators. In your department, causes of dissatisfaction were spread over several factors. Unfortunately, many of the dissatisfying events were related to management.

First of all, some of the respondents to the survey were unable to recall a good event on their job. This is a little disturbing. Several dissatisfying events refer to personnel problems. Some of these I placed in the category of "company policies and procedures." Others fell under the category "supervision." Events under "interpersonal relations" refer to the abusive people we have to deal with every day, doctors, patients, and nurses. Dissatisfaction under "working conditions" refer to the heavy workloads that were associated with the new IV program implemented approximately two years ago. In the staff's mind, the implementation of that project was very dissatisfying. They felt staffing was very inadequate. But when the staff offered input to remedy the situation, they felt management did not respond. Another group of similar events described the lack of a good training program for supportive personnel. These events fell under both "interpersonal relation and company policies."

Dissatisfaction in motivation categories, or negative motivators or motivator slippages were fairly minor. Feelings of negative achievement stem from failing to complete a task or committing an error. Negative recognition is related to these events when the pharmacist had to inform someone of their mistake. Negative work itself is related to dissatisfaction from "interpersonal relationships." They dislike being a pharmacist because of the abusive people we have to put up with. Motivator slippages are usually not serious and do not become inversions
(long-term motivation problems) because the pharmacists moves in the
direction of learning from their own mistakes and experiences.

**MOTIVATORS**

Fifty percent of the satisfying events dealt with achievement; re­
ports of catching potential drug overdoses, answering drug information
questions, and seeing small projects through to a successful completion
were reported. They were able to utilize their knowledge and perform
something out of the ordinary. However, there seem to be too few
opportunities for pharmacists to use and develop their skills. This
seems especially true in a centralized service. But in only about
half of these events, someone else recognized the achievement and
verbalized it to the pharmacist. As mentioned above, these were the
only two motivator factors that appeared in the sample. Ideally there
should be several motivators in a job.

**RECOMMENDATIONS**

After many sequence of events surveys and many job enrichment
programs, Herzberg developed the elements of a good job. These are:

1. client relationship;
2. feedback or knowledge of results;
3. continued learning;
4. schedule own work;
5. personal accountability for work;
6. unique expertise;
7. control own budget or resources;
8. direct communication.
There is no mention of pharmacists having a client relationship with any of the physicians. Client relationship is very important. A worker, any worker, needs to be part of the organization, not just feel he is a part. If a client relationship is established between the pharmacist and the physician, a line of direct communication is also established, problems can be dealt with and solved more easily. This is also a better feedback channel. The pharmacist knows the results of his work.

None of the pharmacists in the survey mentioned that they were recognized for a particular expertise among the staff. Some common expert areas could be TPN, oncology drugs, pediatrics, etc. This can be a big source of satisfaction for the staff pharmacists. As listed above, in addition to unique expertise, continued learning can also be a source of satisfaction. If a unique expertise can be established, then continued learning for this person can be concentrated in that area. This may be facilitated by the move to decentralization.

This first recommendation was a theoretical recommendation. I hesitate to make other recommendations as they may already be in use, or you may be under union contract constraints. But here are my observations.

If you do not already have one, a personnel manual should be written. If you already have one, perhaps it should be updated. Such a manual should contain job descriptions and expectations, new employee training objectives, dress codes, promotion criteria, groundrules for vacation and sick leave, job performance evaluation documents, etc. For example, we now use, for new IV technicians, the slide series on aseptic technique prepared by Rhode Island Hospital. This type of training program could be incorporated into training objectives.
Several other staff complaints centered around a lack of interdepartmental communication in areas such as new drugs and formulary additions. If you do not already have one, you could put together a publication to disseminate formulary changes.

Another important motivation is feedback—feedback on how you are doing on your job. As already mentioned, feedback or recognition for achievement is somewhat lacking in the department. But feedback can and should come from many sources, not just management. When it always comes from management, feedback tends to become "atta boys." We have just started using the new peer review job evaluation program. This year's annual evaluation was the second time we have used the document and are very pleased with it. It not only gives the employee feedback, but department managers also get feedback. Now that you are implementing new programs, don't neglect the upheaval the staff is feeling. Personnel programs are equally important. The staff needs a formal channel for input into these new programs.

In conclusion, I have made some suggestions that may help decrease the amount of dissatisfaction, and motivators that may improve satisfaction and subsequent productivity. As I mentioned above, it is difficult for me to judge whether or not any of these ingredients of a good job are present in the job your pharmacists perform, with the number of responses I received and without reading your policy manual. But this should be a management goal—to incorporate these ingredients, which are likely to improve satisfaction, into the pharmacist's job. Managing motivated people is more difficult than managing people with movement. But the results are more valuable to the department. Thank you very much for your help and cooperation.
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