ABSTRACT
This qualitative study sought to identify the features, advantages, and disadvantages of hotel-style room service; the barriers to, and facilitators for, implementing the process; and “best practices.” The study took place in four heterogeneous hospitals. Participants included hospital administrators, managers, and room-service employees. Data-collection methods included semi-structured interviews, observations, and document analysis. Common features of hotel-style room service were meal delivery within 30 to 45 minutes, a restaurant-style menu, procedures to feed ineligible patients, tray assembly on demand, scripting, and waitstaff uniforms for room-service employees. The major barrier to implementing room service was obtaining nursing support. The key facilitators were the hospital's service-oriented culture, using a multidisciplinary planning team, engaging nursing departments early in the planning stages, and intense customer-service training of room-service employees. The overwhelming advantage was patients' control over their food choices. The main disadvantage was cost. Initial best practices in hotel-style room service include: (a) taking a multidisciplinary team approach for developing and implementing the process, (b) customer-service training, (c) using a customer-driven menu, (d) wearing waitstaff uniforms, and (e) using carts with airpots for dispensing hot beverages.

Methods evaluation—using qualitative methodologies characteristic of naturalistic inquiry—was used in this study to explore one of the newest forms of meal distribution: hotel-style room service. Process evaluation was a good methodological fit for this study because it analyzes how a program was implemented, how the participants responded to the implementation, and the outcome of the program. It can identify the key elements that have contributed to a program's successes and failures by seeking a variety of perspectives from people close to the program (10). According to Matheson and Achterberg (11), “the purpose of naturalistic inquiry is to study an event under the circumstances in which it would naturally occur.” The objectives of this particular study were to identify the features that comprise the room-service process; the barriers to, and facilitators for, implementing the process; the advantages and disadvantages of room service; and “best practices” within the context of the hospital setting.

METHODS
The study took place in four heterogeneous hospitals in the United States that had the commonality of using hotel-style room service as their meal-delivery process for at least 1 year. Table 1 provides profiles of each of the research settings. Sample size totaled 49 participants, including hospital administrators, department managers, and room-service employees.

To obtain potential research sites, foodservice consultants and management companies were contacted. The researcher sought out hospitals that were providing excellent room-service processes in different geographical regions of the United States. Next, foodservice directors and executive chefs were sent information detailing the study’s purposes and the expectations of participants. After securing verbal agreement from each study site, the Institutional Review Board committees at each hospital submitted letters of cooperation, which were submitted to the Vanderbilt University Institutional Review Board prior to the actual site visits. In addition, signed consent was obtained from each study participant.

The study used the purposeful sampling technique of maximum variation sampling for obtaining hospitals that were homogeneous in their meal-delivery process, yet heterogeneous in hospital type and participant mix. According to Patton (10), this sampling method increases the confidence in the commonalities that are found across
Various data-collection methods were used during the 3-day site visits. The main method was semi-structured interviews. A standardized protocol was followed for interviewing participants. The Figure provides a sampling of interview questions.

Approximately 50 hours of observations were made and recorded with handwritten notes. Each site visit began with a tour of the foodservice department and introduction to the employees. Following the initial tour, the room-service process was observed during peak work periods and in between scheduled interviews with managers. Observations were made of the call center/diet office, food preparation, trayline activities, and delivery of meals. Finally, as time permitted and during delivery of meals to patients’ rooms, the hospital’s physical layout and environment were viewed.

The third method for obtaining data was document analysis. Numerous documents that described the hospital and foodservice department’s context, as well as the room-service process, were obtained, including:

- patient meal statistics;
- menus;
- policies and procedures for ordering meals, patient feeding standards, meal preparation and delivery, eligibility for room service, and patients who missed meals;
- job descriptions for room-service employees and their supervisors;
- training programs;
- performance appraisal tools; and
- work schedules.

The study used inductive analysis to analyze the data and NVivo for Windows (2002, QSR International Pty Ltd, Melbourne, Australia) software as a data management tool. NVivo allows researchers to create files, called “nodes,” to store data collected from interviews, observations, and documents. This serves to organize vast amounts of data that cannot be reduced to numbers as well as to link, synthesize, and clarify data points. This study used a node structure consisting of nine free nodes and four case nodes. The free nodes were advantages of room service, barriers to implementing room service, descriptors of room-service program, disadvantages of room service, facilitators for implementing room service, foodservice department context, hospital context, patient satisfaction, and room-service best practices. Each case node represented a study site.

Upon conclusion of data collection at each study site, the interview transcripts were first visually coded according to the free node categories. Coding, which is “linking passages from a document to a node” (12), helps to search for patterns within the data. The process constructs as well as tests answers to the research questions. Once the visual coding process was completed, the transcripts were imported into NVivo. Using the visually coded transcripts as a guide, the data contained in each interview document were coded a second time into the free node categories, as well as into case nodes in NVivo. During this process, Glaser and Strauss’s (13) constant comparative method was used for comparing the contents of the nodes for similarities and differences. Finally, the handwritten observational data obtained from each study site were typed, creating new documents in NVivo. The data were then coded in the same manner in which the interview data were coded.

To establish the research quality of this study, Erlandson and colleagues’ (14) adaptation of Lincoln and Guba’s (15) four trustworthy criteria were used. First, triangulation and member checking contributed to the study’s

<table>
<thead>
<tr>
<th>Hospital, location</th>
<th>Licensed beds</th>
<th>Type of ownership</th>
<th>Foodservice management</th>
<th>Room-service implementation date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kid Central®, lower midwest</td>
<td>373</td>
<td>Private, nonprofit</td>
<td>Contract</td>
<td>November 2000</td>
</tr>
<tr>
<td>Sun Tree®, southeast</td>
<td>687</td>
<td>Community-owned</td>
<td>Self-operated</td>
<td>November 2001–June 2002</td>
</tr>
<tr>
<td>St Bay®, upper midwest</td>
<td>158</td>
<td>Private, nonprofit Catholic</td>
<td>Self-operated</td>
<td>January 2002</td>
</tr>
<tr>
<td>North Key®, northeast</td>
<td>134</td>
<td>Private, nonprofit Unionized</td>
<td>Self-operated</td>
<td>September 2002</td>
</tr>
</tbody>
</table>

*Names of the hospitals are fictitious to protect the identity of the research settings and participants.

<table>
<thead>
<tr>
<th>Question</th>
<th>Participant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who has been impacted (negatively and positively) by this system?</td>
<td>Administrator, manager</td>
</tr>
<tr>
<td>What are the advantages (disadvantages) of hotel-style room service over your previous meal delivery system?</td>
<td>Administrator, manager</td>
</tr>
<tr>
<td>Did you encounter any barriers with implementing room service?</td>
<td>Administrator, manager</td>
</tr>
<tr>
<td>How would you describe the hospital’s management philosophy?</td>
<td>Administrator, manager</td>
</tr>
<tr>
<td>How long did it take to plan and implement the system?</td>
<td>Manager</td>
</tr>
<tr>
<td>Did your full-time equivalent needs change with the implementation of room service?</td>
<td>Manager</td>
</tr>
<tr>
<td>What type of training did you provide employees when you first implemented room service?</td>
<td>Manager</td>
</tr>
<tr>
<td>How does nursing feel about you delivering trays to patients?</td>
<td>Employees</td>
</tr>
<tr>
<td>What type of training did you receive to do your job?</td>
<td>Employees</td>
</tr>
</tbody>
</table>

The third method for obtaining data was document analysis. Numerous documents that described the hospital and foodservice department’s context, as well as the room-service process, were obtained, including:

- patient meal statistics;
- menus;
- policies and procedures for ordering meals, patient feeding standards, meal preparation and delivery, eligibility for room service, and patients who missed meals;
- job descriptions for room-service employees and their supervisors;
- training programs;
- performance appraisal tools; and
- work schedules.
Barriers to Implementation

The major barrier was how the nursing staff slowed down the implementation process. This was cited by 70% of the management-level participants who identified barriers, and those managers represent each of the four study sites. Comments included, “some nurses didn’t want to come on board” and, “I think nursing was probably the hardest group to get through.” Two additional barriers stand out because participants in more than one hospital identified them. However, the extent of their presence is weak, as each was cited by only 15% of the management-level participants who identified barriers. First, a new procedure for coordinating the administration of medications with meals had to be developed for patients with diabetes. Second, the existing centralized trayline for assembling meals did not meet the needs associated with tray assembly on demand. Foodservice managers cited that a lot of time and energy went into determining a new trayline configuration.

Facilitators for Implementation

Why did these hospitals undertake such a massive change in their meal-delivery process, in light of the barriers that they faced? First was the hospital administration’s desire to be more patient-oriented. They viewed the implementation of hotel-style room service as a component of their overall customer-service strategy. Second was the quest to improve patient satisfaction. Third, administrators looked at this new meal-delivery process as a means to gain a niche in a very competitive market. Each of the hospitals in the study was the first to implement hotel-style room service in either their city or surrounding geographical area.

RESULTS

Participants ranged in age from 17 to 64 years. Mean age was 40.9 years for all participants, and 37.0 and 45.9 for room-service employees and management personnel, respectively. The majority of participants were female (73.5%) and white (81.6%). Almost an equal percentage of room-service employees (49%) and management personnel (51%) participated.

Room Service Process

Results from the study indicate a high level of congruency among the hospitals’ room-service processes, including: (a) a 30- to 45-minute meal-delivery time; (b) use of a restaurant-style menu that offered cooked-to-order, upscale, and comfort foods; (c) procedures to feed ineligible patients as determined by the clinical staff and to track eligible patients who do not order meals; (d) tray assembly on demand; (e) a trayline that was short in length; (f) scripting for room-service employees to help them know how to address patients over the telephone and during meal delivery; and (g) waitstaff uniforms worn by room-service employees. Table 2 summarizes the specific features of each hospital’s process.

Table 2. Hotel-style room service features in four hospitals

<table>
<thead>
<tr>
<th>Room-service feature</th>
<th>Kid Centrala</th>
<th>Sun Treea</th>
<th>North Keya</th>
<th>St Baya</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average daily census</td>
<td>250-280</td>
<td>375-380</td>
<td>70-80</td>
<td>50-65</td>
</tr>
<tr>
<td>Room-service meals/day</td>
<td>477</td>
<td>734</td>
<td>120</td>
<td>144</td>
</tr>
<tr>
<td>Average cost of meal ($)</td>
<td>1.45</td>
<td>1.81</td>
<td>Unavailable</td>
<td>3.07</td>
</tr>
<tr>
<td>Length of implementation</td>
<td>14 months</td>
<td>2 years</td>
<td>6 months</td>
<td>6 months</td>
</tr>
<tr>
<td>Service hoursb</td>
<td>6:30 AM-10:00 PM</td>
<td>7:00 AM-9:30 PM</td>
<td>7:30 AM-6:15 PM</td>
<td>6:30 AM-6:30 PM</td>
</tr>
<tr>
<td>Delivery time (min)</td>
<td>45</td>
<td>45</td>
<td>30</td>
<td>45</td>
</tr>
<tr>
<td>Guest trays</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>$10.00/full tray</td>
<td>$5.00 plus tax</td>
<td>$5.00 plus tax</td>
<td>A la carter menu</td>
<td></td>
</tr>
<tr>
<td>$ 5.00/partial tray</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

aNames of the hospitals are fictitious to protect the identity of the research settings and participants.
bKid Central allows patients to order any type of food during the hours of service. Sun Tree serves breakfast from 7:00 AM-11:00 AM, and lunch and dinner from 11:30 AM-9:30 PM. North Key serves breakfast 7:30 AM-9:15 AM, lunch from 11:30 AM-1:15 PM, and dinner from 4:30 PM-6:15 PM. St Bay serves breakfast all day, and lunch and dinner are served from 10:30 AM-6:30 PM.

credibility. Triangulation of data came from interviews, contextual and participant observations, written notes from the field, audiotapes of interviews, and study-site documents. The variety of data sources and data collection methods produced corroboration between data. This means that the findings were the same or similar regardless of the data source or collection method. All participants except room-service employees were given the opportunity to review a typed transcript of their interview. This member-checking process ensured data accuracy. Room-service employees were not included in this process due to the barriers in contacting them. Second, for safeguarding the transferability of the study’s results, thick description, captured through written records of the 49 interviews, as well as audiotapes of 19 of them, was used. Third, for ensuring dependability of the study’s data, an inquiry audit for determining if the data-collection and analysis processes were acceptable was used along with triangulation. Finally, two safeguards ensured confirmability of the study’s results. They included an audit of the final report by the researcher’s dissertation committee to determine if the conclusions were supported by the data and triangulation.

Frequencies were calculated for all demographic variables. SPSS version 11.0 (2001, SPSS, Inc, Chicago, IL) statistical software was used for analysis of data.
Participants representing all of the study sites used four key facilitators to overcome the barriers mentioned previously. The service-oriented culture of each hospital served as the primary facilitator for implementing hotel-style room service. As one supervisor stated, “the organization’s culture being so customer-service oriented was a facilitator to getting this type of program up and running.” The second facilitator was using a multidisciplinary committee to develop and implement the process. Each hospital established a core group of hospital employees representing departments that the new process would affect. The third facilitator was engaging the nursing department in discussions about the new meal delivery process from the very beginning, before establishment of the multidisciplinary committee. The foodservice directors’ belief that the nursing staff was a potential barrier came to fruition, as discussed earlier. However, the foodservice directors stated that if they had not tried to sell the concept early on in the change process, then implementation of room service would have been an even greater challenge. Finally, intense customer-service training was provided to room-service employees before the new process was implemented. Employees received training in telephone etiquette, proper procedures for entering a patient’s room, dealing with patients unhappy with their room service, and the impact their physical appearance has on customer satisfaction.

Advantages of Hotel-Style Room Service

Study participants cited 22 advantages of room service. The overwhelming advantage, which was cited by 59% of participants, was patients’ control over their food choices by allowing them to eat what and when they want to eat. Seventy-two percent of the management-level participants indicated that this feature of room service was the major contributing factor to the second most-cited advantage, improved patient satisfaction scores. Pre- and post-room service implementation data on patient satisfaction of foodservice was obtained from each hospital. Kid Central and St Bay use the Press Ganey Satisfaction Measurement Instrument, a written survey voluntarily completed by patients after discharge. Kid Central saw an increase from the 25th percentile ranking in their peer group prior to implementation of room service to the 99th percentile ranking 1 year postimplementation. St Bay already had a high level of patient satisfaction with foodservice, as noted by the 92nd percentile ranking in their peer group. However, 1 year after implementation of their process, they had achieved a 98th percentile ranking. Sun Tree Hospital used Quality Data Management’s telephone survey on discharged patients. They saw an increase from a mean score of 29 for patients satisfied with foodservice before implementation of room service to a mean score of 67 at 1 year after its implementation. North Key used an in-house written survey that was administered during the patient’s admission. Before implementation of their room-service process, 76% of the patients were satisfied with foodservice. After 1 year of using room service, they had reached a 92% satisfaction rating. Additional advantages cited by study participants include:

- contributes to meeting the hospital’s mission;
- increases foodservice employees’ pride in their job;
- improves food temperatures;
- eliminates nursing staff’s responsibility for meal delivery;
- provides more food choices;
- decreases plate waste;
- decreases the number of complaints about food;
- empowers the patient;
- improves food quality; and
- decreases food cost.

Disadvantages of Hotel-Style Room Service

The main disadvantage cited by 52% of the management-level participants was increased cost, mainly a result of the greater number of full-time equivalents required to provide room service. Before the new process was implemented, nursing employees at each of the study sites delivered meals to patients. When that responsibility was taken over by the foodservice departments, their full-time equivalents budgets increased, but the nursing area’s budget did not decrease. As one director stated, “nursing should have given up and we should have taken their FTEs [full-time equivalents], but it didn’t happen that way.”

Participants cited additional disadvantages, including the potential for abusing the system by patients who order food for themselves and guests, a repetitive menu, lack of total patient participation, and continued need for modified menus. However, the extent of their presence is weak because they were identified infrequently.

DISCUSSION

Though numerous studies have explored meal-distribution systems and patient satisfaction with foodservice quality, this study is one of the first to focus on room service. The features of the hospital’s room-service processes in this study were consistent with those identified in a recent peer-reviewed article (16) and other professional publications (17-19). However, the specificity of the features differed slightly between the study sites because each process was developed to cater to their patients and the organizational context.

The aforementioned articles did not include the barriers or facilitators that may occur during the implementation of room service. Because organizational change can foster creative tension among its members, practitioners who acknowledge the potential for barriers like those identified in this study should be better prepared to deal with them if they arise. At the same time, practitioners who employ the facilitators discussed earlier may be able to overcome or prevent potential barriers.

One research study and several trade journals have cited some of the advantages identified in this study, including improving patient satisfaction with foodservice and decreasing food cost (16,18-24), as well as increasing foodservice employees’ pride in their job (20,23,24). Likewise, the disadvantages of a repetitive menu (23) and the inability for all patients to participate in room service (23,25) have been reported previously in trade journal articles. However, contradictory to this study’s findings,
Norton (23) and The CBORD Group, Inc (25) indicated that new equipment was the contributing factor for the disadvantage of increased cost.

This study is subject to two potential limitations. First, it was conducted in only four hospitals. Consequently, caution is urged in generalizing the findings beyond the context of these hospitals. A larger study using survey methodology is needed to support the findings of the present study. Second, the hospitals used different satisfaction measurement tools, which prevented comparison of patient satisfaction between study sites. If possible, the recommended larger study should include hospitals that use the same tool to allow for more accurate comparison of patient satisfaction data.

CONCLUSIONS

One of the objectives of the present study was to identify best practices in hotel-style room service. A best practice can be defined as any practice, know-how, or experience that has proved valuable or effective in a specific setting or within one organization that may have applicability in other organizations (26,27). There are identified best practices when implementing hotel-style room service, albeit from a small sampling of facilities. Practitioners should include hospitals that use the same tool to allow for more accurate comparison of patient satisfaction data.

- Use of multidisciplinary teams appears to be important for successful implementation of hotel-style room service. Practitioners need to determine if multidisciplinary teams are part of the current culture of their facility for solving problems and affecting process change. It is critical that teams have adequate time for planning and developing their processes, as well as communicating information about the change in meal delivery to their respective departments. The multidisciplinary team approach, plus adequate time for development, implementation, and communication, appears crucial for obtaining buy-in from those who will be affected by the process change.
- This meal-delivery process is customer-oriented and has been adapted from the hospitality industry. Therefore, in order for hotel-style room service to succeed, employees who take patients’ orders over the telephone and deliver meals to patients’ rooms must receive intense customer-service training. Practitioners may benefit from enlisting the services of a consultant from the hospitality industry to train their employees on how to be helpful, thoughtful, considerate, and cooperative during their interactions with patients. At the same time, practitioners need to be aware of the fear many foodservice employees may have about entering a patient’s room. The clinical dietitian can play an important role in educating the foodservice employee about what to expect.
- Because the menu is a crucial component of hotel-style room service, practitioners need to develop a menu that is based on patients’ food preferences and their demographic profile. Focus groups of former patients and community members can be helpful in identifying menu items that meet their needs and food preferences.
- One of the unique aspects of hotel-style room service is the waitstaff uniform worn by the employees. They should be tailored to fit well and be comfortable. Practitioners should include employees in the selection of their uniforms to obtain buy-in and to make sure the uniforms facilitate performance.
- To ensure the service of hot beverages, practitioners would be wise to invest in airpots that can be attached to the top of food carts. This permits pouring the hot beverage immediately before the tray is carried into the patient’s room.

Foodservice has been included as a component of care in most hospitals in the United States since the 18th century (28). Throughout the years, the type of food served to patients and the method used to deliver it has changed, yet as one study participant claimed “that old stigma of hospital food” appears to remain constant. If the small sampling of facilities in this study is any indication, hotel-style room service may contribute to eliminating that old stigma because the patients “think they’re in a four- or five-star hotel.”

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References


