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Advisors: Dr. Carol Haggerty & Dr. Meryl Kanfer

Objective

The purpose of this project is to improve rural patient’s access to care and provider efficiency in the UNC School of Dentistry Geriatric Clinic. The primary outcome being assessed is patient/provider satisfaction and the goal is to increase satisfaction for these groups by addressing the root cause of the issues experienced by faculty, students and patients by implementing six different interventions.

Background

With the aging baby-boomer cohort by 2030 older adults will account for almost 20% of the US population. Most geriatric dentistry is paid out-of-pocket by the individual and the UNC School of Dentistry Geriatric Clinic is the only geriatric clinic in the region to specifically serve this population. The Geriatric Clinic serves patients from 17 rural N.C. counties as well as patients from Virginia and Maryland. The average patient is 77 years old, travels 53 miles to access care, and 28% of the patients are from rural counties. Unfortunately, access to care in the Geriatric Clinic often difficult. for geriatric dental patients.

Root Cause Analysis

After conducting a thorough needs assessment consulting both patients and providers, we identified four core issues:

- Disorganized cabinets make it hard to find materials
- Difficultly finding parking for patients with limited mobility
- Patients have difficulty navigating facility and finding the clinic
- Staff spends extensive time on administrative computing tasks

Rationale

The importance of facility design of clinical spaces has recently gained attention. Evidence has shown that improving the physical environment of healthcare facilities can improve both provider and patient outcomes. Specifically, increased coordination of processes through evidence based design can combat latent conditions to improve patient safety.

Baseline Satisfaction Data

Q1: I am able to easily follow directions to the Geriatric Dental Clinic given in the patient brochure.

Q2: When working the Geriatric Dental Clinic I am able to locate tools and materials necessary to my work with patients easily and efficiently.

Q3: My time with patients is used efficiently.

Q4: When treating patients, I feel confident that I know my patient’s medical history.

Q5: I have difficulty finding parking.

Q6: I have difficulty walking from my parking spot to the clinic.

Q7: I have difficulty finding parking.

Q8: I have difficulty walking from my parking spot to the clinic.

Results

PROPOSED INTERVENTIONS

- Redesign brochure
- Update signage
- Designate parking spot/Arrange patient drop-off process
- Upgrade technology (dual monitors/IPads)
- Organize cabinets
- Supply wheelchairs

TABLE 1: Estimated and actual cost for each intervention. For interventions which the final cost is not available, the estimated cost was used to calculate the total cost.

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Estimated Cost</th>
<th>Actual Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brochures</td>
<td>$475</td>
<td>$2320</td>
</tr>
<tr>
<td>Signage</td>
<td>$100</td>
<td>$0</td>
</tr>
<tr>
<td>Parking</td>
<td>$100</td>
<td>$0</td>
</tr>
<tr>
<td>iPads</td>
<td>$700</td>
<td>$676</td>
</tr>
<tr>
<td>Monitors</td>
<td>$1000</td>
<td>$184</td>
</tr>
<tr>
<td>Cabinets</td>
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<tr>
<td>Wheelchairs</td>
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<td>TBD</td>
</tr>
<tr>
<td>Misc</td>
<td>-----</td>
<td>$12</td>
</tr>
<tr>
<td><strong>Total Cost</strong></td>
<td><strong>$3192</strong></td>
<td></td>
</tr>
</tbody>
</table>

Conclusions

- **Intervention**
  - Brochures
    - Brochures are in development and 1500 copies will be delivered to the clinic by May 15th. The clinic will be provided with the pdf file so that they are able to make more copies once they run out.
  - Technology
    - iPads with cases to be delivered by April 16th, monitors to be delivered and installed by the end of April
  - Signage
    - Signage has been approved as part of a larger signage updating project in the works in the UNC School of Dentistry and new signage will be put in place by the middle of May
  - Parking Solution
    - Parking information, including a more clear explanation for the patient drop-off process, has been incorporated into the brochures due to logistical barriers with designating a physical parking spot at Tarrson Hall
  - Bariatric Wheelchair
    - Will be delivered by the end of April
  - Organize cabinets
    - This intervention was not able to be completed because many providers felt that reorganizing the cabinets would disrupt clinic workflow.

Our group of interdisciplinary students aimed to use our time and other resources to address issues at the Geriatric Clinic in order to improve efficiency and satisfaction for providers and clients/caregivers. Following our needs assessment we recognized that Geriatric Clinic patients have specific needs and deserve the same access to care as other dental patients. Throughout this process we realized how important it is to create positive working relationships with the providers in the Geriatric Clinic as well as how much time it requires to enact these systematic and organizational changes. We also focused on making changes that would require very little additionally on the part of the provider to sustain the impact of the interventions on satisfaction.

The authors would like thank Meg Zomorodi and Kewana Smith as well as the RPHI Spring Immersion professors and champions especially our advisors Dr. Haggerty and Dr. Kanfer for their guidance, direction, and assistance with this project.