Primary care team perceptions of team-based care and clinic design types across three practices

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I-PRACTISE
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Recent emphasis on coordinated team-based care necessitates effective team communication between visits.

New primary care clinic designs can promote team communication by supporting approaches like colocation and experience benefits:

- “Bumpability” (more interprofessional interactions)
- “Practice talk” (enhanced quality improvement)
Background

- Influence of different clinic designs on the perceptions of primary care professionals has not been studied
  - Literature has focused on inpatient setting
  - Actual effects of environmental optimization is not known
- Purpose: Explore how different primary care clinic environmental designs are related to team perceptions of interactions before and after visits
3 family medicine clinics
  ○ Staffed and sized similarly
  ○ Built in past 4-7 years
2 clinics were pod-based and teams were not colocated
1 clinic was on-stage/off-stage and teams were colocated
Pod-based clinic design
On-stage/off-stage (OS/OS) clinic design

“Off-Stage” Care Team Station

Exam Room
Exam Room
Exam Room

Hallway

Exam Room
Exam Room
Exam Room

“Off-Stage” Care Team Station

Pt
Pt
Pt

MD
RN
MA
Study Design

- Multiple methods informed focus group topic development
- Grounded theory-guided
  - Constant comparison

Observations in clinic → Interviews with managers → Focus groups with staff and providers

Data collection → Data analysis
At each of 3 clinics...

- 40 hours of observations
  - Excluding the examination room
  - Field notes
  - Spaghetti diagrams
    - High traffic areas and walking paths

- Interview with clinic manager (45 min.)

- 2 focus groups using photo elicitation (90 min.)
  - Providers (physician, physician assistants)
  - Staff (registered nurses, medical assistants, receptionists)
Data Analysis

- Interview and focus group audio recordings transcribed
  - Compared with field notes
- Commonalities and contrasts between clinics were organized into categories and ultimately major themes
- Categories and themes presented with quotes at various stages to two expert groups for feedback
  - Clinical feedback from experts at PATH
  - Methodology feedback from experts at QRG
- Feedback used to revise analysis and focus group topics
Results: Focus Group Demographics (n=21)

**Age**
- 18-24: 5%
- 25-34: 48%
- 35-44: 14%
- 45-54: 19%
- 55-64: 14%

**Role**
- Medical Receptionist: 24%
- Medical Assistant: 19%
- Registered Nurse: 14%
- Physician: 24%
- Physician Assistant: 19%

**Marital Status**
- Single: 29%
- Married: 71%

**Gender**
- Female: 90%
- Male: 10%

Group had **13 years** of health care experience on average (median = 9 yrs.)
### Differences in connecting with patients outside of the office visit

<table>
<thead>
<tr>
<th>OS/OS Clinic</th>
<th>Pod-Based Clinics</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Providers dissatisfied with being physically separated from patients</td>
<td>• Some staff satisfied seeing patients</td>
</tr>
<tr>
<td>○ ... I mean there’s nice workflow advantages, but... I miss sitting and</td>
<td>○ I do like to see [patients]... I talk to our patients more than I actually</td>
</tr>
<tr>
<td>working and seeing families walk out of the exam rooms... (P)</td>
<td>physically see them because I’m not rooming patients. It’s nice when they</td>
</tr>
<tr>
<td>○ It almost feels like all this is separate from me and my practice. (P)</td>
<td>come out of an exam room and introduce themselves. (S)</td>
</tr>
<tr>
<td></td>
<td>• But overall team dissatisfied</td>
</tr>
<tr>
<td></td>
<td>○ ... biggest issue is screens being open... patient information. (S)</td>
</tr>
<tr>
<td></td>
<td>○ ... patients get lost and come back thinking it’s the exit and say hi. (P)</td>
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Differences in how providers communicated with teams

<table>
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<tbody>
<tr>
<td>• Colocation made interactions easy</td>
<td>• Difficulty interacting with support staff</td>
</tr>
<tr>
<td>□ I think it’s helpful just to have the proximity. (P)</td>
<td>□ Well, the [clinic] design is dysfunctional because I can’t communicate with my nurse easily, and it wastes time. (P)</td>
</tr>
<tr>
<td>□ It’s also really efficient having a nurse in a pod if there are specific things you need, [rather] than having to run around and chase someone down. It’s nice having someone right across from me that I can just talk to. (P)</td>
<td>□ I would prefer to have a closed space to work in and have my MA within a few steps. (P)</td>
</tr>
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(P) = Participant
### Differences in provider and support staff meetings

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</table>
| • Regular in shared work areas  
  ○ ...[the armpit] is used during the diabetic huddles... right in the morning... (S) | • Irregular in physician offices  
  ○ ...the one provider who leaves early... she always does a great job **coming to us physically** and saying ‘is there anything else I should help you with before I go.’ Things like that are nice too. (S) |
OS/OS providers relations within and across teams

- Cross-team communication is limited
  - It’s very much like your staff goes in the back door, goes into your areas, you go into your exam rooms, and **you don’t know at all what’s going on in the rest of the clinic.** (P)

- Enhanced teamwork
  - I feel like **the pods are segregated** and I feel like we don’t get to know people in the other two pods because you’re not interacting with them... **while it’s a nice sense of teamwork in your pod, you lose that with the other two pods.** (P)

- Improved social environment
  - There’s a social aspect about it, which is really nice. **Medicine can be isolating.** You can be working by yourself in a corner, seeing patients and not interacting with other people. **I like that our pod has this social aspect.** (P)
Pod-based providers preferred private over shared areas and dissatisfied with inefficiency

- Pod-based providers perceived inefficiencies due to lack of accessible, private work areas to use between clinic visits
  - In between patients is really the time I have to catch up on charts and notes. **But if it’s only going to be a couple of minutes I don’t have a place in this hallway where I can go consistently to do quick computer things. If another provider is not seeing patients in that hallway, I can slip into an exam room** to do it, but the time it takes to walk back to my office and do it feels like wasted time, and if I’m just standing in the hall doing nothing, that’s also **wasted time.** (P)

- Dissatisfied with working in care team stations
  - I feel like I’m more efficient going through things when I’m by myself. I love having my office and I **never do anything in the nurse’s station.** (P)
Discussion

- Trade-off between patient contact and privacy issues
  - Closed off-stage areas prevented patient interruptions that pod-based teams experienced
  - Some staff missed that informal patient contact
- Trade-off between frequent face-to-face collaboration and communication with other clinic teams
  - Added value beyond existing provider-staff communications
    - Supplementing/replacing EHR messaging/notes
Conclusions

- Colocation can improve team social relationships
  - Dedicated workstations in care team stations may promote colocation
- Off-stage, enclosed areas address team environmental dissatisfaction related to privacy and patient interruptions in traditional, pod-based clinics
- Off-stage areas, intended to promote patient privacy, instead risk teams feeling isolated from other clinic teams and patients
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