

Moving from space to place

Reimagining the challenges of physical space in primary health care teams in Ontario

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Abstract

Objective To extend our understanding of how primary health care team members characterize the effects of location on team functioning.

Design Qualitative study using grounded theory methodology, with in-depth analysis of data concerning the role of physical space in teamwork.

Setting Family health teams in Ontario.

Participants A total of 110 team members from 20 family health teams in Ontario.

Methods Individual semistructured interviews were conducted. Interviews were audiorecorded and transcribed verbatim. Individual and group coding followed grounded theory processes of open, axial, and selective coding. Immersion in interview and field note data facilitated crystallization.

Main findings Across sites, regardless of their physical space, team members commented spontaneously about the role of space in team functioning. An overarching theme of a "sense of place" developed from data analysis. A sense of place could be established through co-location (being in the same physical space), the allocation of team members' working spaces, coming together, and having a shared vision. Physical space often operated as a key facilitator or considerable barrier to creating a sense of place; however, some teams with suboptimal physical space functioned as highly integrated teams, creating a sense of place through various means.

Conclusion Many interprofessional health care teams cannot physically change less-than-optimal spaces. However, teams can thrive and create a sense of place through various means, some of which relate to actual physical space, and some of which relate to promoting common activities and a shared vision—factors that are effective for team building in general. When there are economic limitations, as well as structural constraints, then it is essential that creating a sense of place be a priority. Future research should consider this lens as a means for expanding the discussion and possible solutions around traditional space issues.

Editor's key points

- ▶ This study examined the role of physical space in interprofessional primary health care team functioning and found that some Ontario family health team sites with co-located teams and optimal organization of their physical spaces credited these spaces as contributing to their success as a team. Other sites with less-than-ideal physical spaces struggled as a team and believed their physical space hindered their efforts in team functioning.
- ▶ This study found that by creating a "sense of place"—by team members coming together to meet and collaborate, as well as having a shared vision for the team-some family health teams thrived despite their less-than-optimal physical spaces. Even teams fortunate to build or remodel their physical spaces succeeded when they were attuned to team members' needs and created a sense of place through attending to their needs.
- Creating a sense of place is a potential solution that interprofessional teams within limited physical spaces can employ to promote team functioning.

Points de repère du rédacteur

- ▶ Cette étude examinait le rôle de l'espace physique dans le fonctionnement des équipes interprofessionnelles de soins primaires; elle a fait valoir que certaines cliniques des équipes de santé familiale en Ontario où les locaux étaient partagés et l'espace physique était organisé de manière optimale attribuaient le mérite à ces espaces pour leur réussite en tant qu'équipe. D'autres cliniques où les espaces physiques étaient sous-optimaux avaient des difficultés en tant qu'équipe, et croyaient que leur espace physique nuisait à leur bon fonctionnement.
- ▶ Cette étude a fait valoir qu'en créant un «sentiment d'appartenance» - du fait que les membres de l'équipe s'entendent pour se rencontrer et collaborer, et qu'ils partagent une même vision – certaines équipes de médecine familiale fonctionnaient bien malgré leurs espaces physiques sous-optimaux. Même les équipes ayant la chance de pouvoir bâtir ou remodeler leurs espaces physiques connaissaient la réussite seulement si elles étaient réceptives aux besoins des membres de l'équipe et créaient un sentiment d'appartenance en répondant à ces besoins.
- L'inspiration d'un sentiment d'appartenance est une solution potentielle dont peuvent se servir les équipes interprofessionnelles ayant des espaces physiques limités pour favoriser le bon fonctionnement de l'équipe.

Passer de l'espace au sentiment d'appartenance

Repenser les défis de l'espace physique dans les équipes de soins primaires en Ontario

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Résumé

Objectif Approfondir notre compréhension de la façon dont les membres des équipes de soins primaires caractérisent les effets de leur emplacement physique sur le fonctionnement de l'équipe.

Type d'étude Étude qualitative à l'aide d'une méthodologie empirique et d'une analyse en profondeur des données concernant le rôle de l'espace physique dans le travail en équipe.

Contexte Équipes de santé familiale en Ontario.

Participants Au total, 110 membres de 20 équipes de santé familiale en Ontario.

Méthodes Des entrevues semi-structurées ont été effectuées individuellement. Les entrevues étaient enregistrées sur audio et transcrites mot pour mot. Un codage individuel et par groupe reposait sur les méthodes empiriques du codage ouvert, axial et sélectif. Les données sur l'immersion dans l'entrevue et les notes sur place ont facilité la validation.

Principales constatations Dans toutes les cliniques, quel que soit leur espace physique, les membres des équipes ont offert spontanément des commentaires sur le rôle de l'espace dans le fonctionnement de l'équipe. Le thème omniprésent du «sentiment d'appartenance» s'est dégagé de l'analyse des données. Un sentiment d'appartenance pouvait se former par la cohabitation (être dans le même espace physique), l'attribution d'espaces de travail aux membres de l'équipe, la convergence et le partage d'une même vision. L'espace physique était souvent un facilitateur clé ou un obstacle majeur à la création d'un sentiment d'appartenance; toutefois, certaines équipes où l'espace physique était sous-optimal fonctionnaient comme des équipes très fortement intégrées et créaient un sentiment d'appartenance par divers autres moyens.

Conclusion De nombreuses équipes interprofessionnelles de soins de santé ne peuvent pas changer leurs espaces physiques sous-optimaux. Par contre, les équipes peuvent réussir et créer un sentiment d'appartenance par divers autres moyens, dont certains ont rapport à l'espace physique réel et d'autres, à la promotion d'activités communes et au partage d'une même vision, qui sont des facteurs propices à la consolidation d'équipes en général. Lorsqu'il y a des contraintes d'ordre économique ou structurel, il est alors essentiel de créer prioritairement un sentiment d'appartenance. D'autres travaux de rechercher devraient envisager cet angle comme moyen d'élargir la discussion et de trouver des solutions possibles aux habituels problèmes d'espace.

his paper expands the traditional discussion concerning the importance of physical space in interprofessional health care teams by distinguishing between space and place, thereby offering solutions to physical space constraints that do not necessarily require relocation or renovation.

The effect of space on team functioning has been recognized across disciplines and sectors including software development, public service, hospital services, 3 and interprofessional primary health care teams. 4-6 A number of theories examine the mechanisms by which space affects teams. Bourdieu⁷ speaks of social space and its symbolic power. Bleakley8 uses the theory of Deleuze and Guattari9 to distinguish between striated (hierarchies and boundaries) and smooth (boundary crossing) spaces in interprofessional teams. Laing and Bacevice¹⁰ use corporate examples to suggest possibilities for interprofessional health care teams such as organizing space so that the environment supports shared meaning around goals, yet respects professional identity. These suggestions arise out of the important distinction these authors make between space and place, building on these concepts as debated among scholarly communities including architecture, geography, urban studies, and sociology. 10 Space is defined as being bounded geographically and is consistent with some kind of physical containment.11 Place, on the other hand, is defined as a "distinctive coming together in space."11 Place is imbued with meaning beyond geographic or organized relativity.10

This paper applied the concepts of space and place to extend our understanding of how team members in family health teams (FHTs) in Ontario characterized the effects of physical space on their team and its functioning.

Methods —

Study design and participants

We conducted a past study that employed grounded theory to examine team functioning in FHTs in Ontario.12 That study found that space was a prominent issue raised by participants.¹² This article reports the analysis of data examining the role of physical space in teamwork.

Twenty FHT practice sites were recruited by an administrative staff member supported by the Ontario College of Family Physicians; sites were selected to represent maximum variation in location, year of FHT approval, health professionals, and practice configuration. The interview participants (N=110) were recruited from the 20 participating practices by each practice's executive director or manager, who was asked to invite participants reflecting the overall team composition. Informed consent was received from participants and confidentiality assured before starting the interview.

Data collection

Individual semistructured interviews were conducted at the practice sites by 1 of the 3 female authors. Interview questions included the following: "What makes your team work?" "How do you sustain your team?" "How does your team communicate?" Those participants who were part of an FHT practice with more than 1 physical location were also asked, "How do you communicate across locations?" Interviews lasted 30 minutes on average and were audiorecorded and transcribed verbatim. Data were managed using NVivo 10 software.

Data analysis

The initial data analysis¹² followed the grounded theory process¹³ of open coding, axial coding, and selective coding. Space emerged as one of the key factors in team functioning. Review of our field notes revealed that participants' comments about space were not necessarily congruent with the actual physical space in which they worked. This led to a further immersion into the data including all participant quotations and field notes concerning space. We again used axial, open, and selective coding, as well as conducted a constant comparative analysis, specifically regarding space. At the same time, we explored theories around the role of space in teams,7-11 which, along with reimmersion in the data, encouraged reflexivity and challenged our assumption that better spaces led to better-functioning teams. This exercise resulted in the crystallization and final synthesis of our themes according to the distinction between space and place described by scholars. 10,11

The trustworthiness and credibility of the analysis were ensured by the following: audiorecorded interviews and verbatim transcripts; detailed field notes that were kept for each site; and independent and team analysis. In a commitment to reflexivity, we considered how our professional backgrounds (epidemiology, social work, and sociology) might influence our findings.14

Ethics approval was received from the University of Western Ontario Review Board for Health Sciences Research Involving Human Subjects in London, Ont.

- Findings -

The sample consisted of 110 participants from 20 FHT sites in both rural (35%) and urban (65%) locations. The length of time that sites had been FHTs ranged from less than a year to 8 years. Team size ranged from 9 to 80 members. The 20 sites varied in allocation of space, ranging from being a 1-site FHT to being one of many sites in the FHT. Some sites had family physicians in 1 physical location and interprofessional health care providers (IHPs) in a separate physical location. In others, IHPs moved between different sites. Table 1 provides participants' characteristics.

Table 1. Participant (N = 110) characteristics	
CHARACTERISTICS	VALUE
Mean (SD) age,* y	41 (11.6)
Mean (SD) time in current position,† y	5.5 (6.7)
Sex, n (%)	
• Male	21 (19.1)
• Female	89 (80.9)
Professional affiliation, n (%)	
• Family physician	28 (25.5)
Nursing professional	28 (25.5)
Administrative staff§	25 (22.7)
• Social worker	11 (10.0)
• Dietitian	9 (8.2)
Other interprofessional health care provider	9 (8.2)

^{*}Age range was 23 to 72 y.

Sense of place theme

Across sites, regardless of their physical space, participants commented spontaneously about the role of space in team functioning (site [S] number, participant [P] number). Participants did not explicitly distinguish between or comment on the relationship between space and place: "I think the culture is just a really positive place to be." (S1, P3). Rather, an overarching theme of a "sense of place" arose from the immersion in and deeper analysis of the data. Physical space often operated as a key facilitator or considerable barrier to creating a sense of place. However, what was notable was that some teams with suboptimal physical space functioned as highly integrated teams, having created a sense of place despite physical space limitations. The following findings present the various means through which a sense of place was established, with participant quotations illustrating how these factors affected the team's success or failure in creating a sense of place.

Sense of place through co-location. The simple reality of co-location in the same physical space, and consequent access to team members, was critical to establishing a sense of place for many teams: "It's nice being in 1 building because you run into people and you can discuss issues." (S8, P42)

On the contrary, lack of physical co-location was cited as affecting interactions, as explained by an IHP: "How we interact? It's really difficult when you have the physicians working in all different places. We're not under 1 roof." (S19, P103)

Physical co-location was sometimes viewed as being equivalent to being part of the team: "I feel more of that team atmosphere here mainly because this is where I am for the most part." (S12, P67)

Or conversely explained by another participant: "If you're not here, you're not part of the team." (S1, P2)

This could be especially challenging for team members who rotated among sites: "But I think that when she [the nurse practitioner] goes to another site, it's harder to feel like you're part of that group." (S12, P64)

Teams talked about the role of physical co-location in forming relationships: "It's the relationships that make [the team] work and what helps the relationships are when team members can actually be with us physically." (S3, P14)

This was echoed by a member of a dispersed team who referenced the difference between team members who were physically co-located and those who were not: "I think the location is a huge part of it; not being with them is huge. When you can't do that, it's just not as comfortable." (S11, P61)

This also posed challenges for effective communication. "When you're not speaking to someone face to face, a whole lot can be lost because communication makes [the team] run. It's one of the biggest barriers that we're not all co-located." (S15, P82)

Sense of place through the allocation of team members' physical working spaces. The contribution of physical space to a sense of place and corresponding team success went beyond simple physical co-location.

This site is geographically interwoven—physicians are very comfortable with chatting with you wherever. They're very receptive to you standing outside their door and waiting for them if you need to ... so it's a very easy team but it's the geographical support that keeps that. (S13, P70)

Even among teams residing together in 1 physical space, members commented about challenges concerning the organization of their physical space: "We talk about us being a team and under 1 roof but how often do we really see each other? Not very often." (S2, P9)

Even being on different floors could disturb the sense of place: "It is an upstairs, downstairs [situation], and it would be so much easier if it was just 1 floor." (S6, P32)

A less-than-optimal allocation of physical space could affect the sense of team and undermine a sense of place. This was especially true when physicians and IHPs were located separately. "One of the biggest problems with our FHT is the geographic thing. The docs [family physicians] and the allied [IHPs] are totally separate ... so there's not that sense of team." (S11, P63) Some teams went beyond simply locating professionals' offices close together. Instead, they used open office space where team members did individual work in close proximity. One participant expressed that this open access to team members was essential to success: "This is probably the

[†]Range of time in current position was less than 1 mo to 36 y.

Percentages do not add to 100% owing to rounding.

[§]Examples of administrative staff include executive director and admin-

best group I've worked in, and maybe part of the reason is because we are in an open area and we can see each other and talk to each other." (S16, P87)

Sense of place through coming together. Beyond specific physical working spaces, teams employed common areas and activities to create a sense of place. Many teams discussed the importance of physical spaces that provided opportunities to connect with other team members including common traffic paths and connecting hallways: "I would say it [what helps make the team work] is more the informal hallway chats, unintentional bumping [into one another]." (S15, P82)

One team member summed up a place to connect as follows: "I think the most important meeting is the corridor meeting." (S17, P93)

Some sites, including those with dispersed physical space configurations, created a sense of place through gathering in common areas including meeting rooms and kitchens: "We have a big lunchroom where we can all have time together." (S5, P31)

Many teams used activities to bring people into common physical spaces. One participant described lunchand-learn sessions: "We give them a great lunch and they hear an educational talk; that allows 1 person from 1 pod to sit next to another person from another pod and just in that collaborative theme It's our water cooler." (S8, P44)

Shared projects also provided a sense of place through unique opportunities to come together.

I think the interprofessional clinic is of help with that [team building]—people working together on a more focused project than sort of in parallel play. They're kind of in the same sandbox now working together, building the same sand castle as opposed to each building our own. (S6, P45)

Some teams had the opportunity to shape their physical space through building new offices or renovations. They took this opportunity to create a sense of place by paying attention to the team's needs.

When we built this building, we turned the lunchroom into an area for lockers so staff could put their things away We built this incredibly huge conference room, and a great eating area in the kitchen, and a quiet area I think that's really been a bonus for the staff. (S1, P2)

A sense of place was also created when team members were consulted about changes in physical space and team integration was a conscious design decision.

I think the biggest thing is we were designed to integrate; that was a design feature at the very start with us moving to a new location It's just 1 large group

of people working together And it's more than just co-located, it's also we're co-functioning. (S13, P71)

Sense of place through a shared vision. Many teams created a sense of place through sharing a common vision and a sense of team. "We've cultured that feeling of we're in it together, the greater mission We have 4 strategic priorities and making [FHT name] a place where staff want to work, that's [1 of them]." (S17, P97)

For some teams with challenging physical space, this was especially important. "I think [the effect of space on teamwork] is important, but I have to say it's more about how the work gets done, right? Because I don't think that it makes a big difference that we have to go upstairs."(S10, P52)

A participant in a team with a particularly challenging physical space stated: "It's just a matter of surrounding yourself with good people. And when you have that in place, you feel happy where you are." (S4, P24)

This same team occupied a building with multiple floors and another building a block away and took this in stride. "We walk back and forth and the patients do too; we walk back and forth all the time." (S4, P23)

Discussion –

This paper expands the conversation about the role of physical space in interprofessional primary health care team functioning. In our study, we found that some sites with co-located teams and optimal organization of their physical spaces credited these spaces as contributing to their success as a team. Other sites with less-than-ideal physical spaces struggled as a team and believed their physical space hindered their efforts. There were still other teams with less-than-ideal physical spaces that seemed to thrive. Our initial analysis characterized physical space as 1 of a number of important factors in team functioning, 12 and we simplistically identified that some teams with suboptimal physical space managed to "overcome their physical space limitations." However, upon the deeper analysis described in this paper, we recognized that the reasons some teams thrived went beyond either optimal physical spaces or overcoming physical space limitations. Rather, these teams had created a sense of place through a variety of means, some of which indeed did relate to actual physical space such as co-location and allocation of work spaces, but others related to promoting coming together to meet and collaborate, and having a shared vision for the team. Even teams fortunate to build or remodel their physical spaces succeeded when they were attuned to the needs of team members and created a sense of place through attending to these needs. As noted by Lawn et al,5 co-location on its own does not guarantee harmonious team functioning.

Limitations

As this study was limited to FHTs in Ontario, the transferability of its findings to other locations or models of primary care might be limited. Additionally, we were able to visit these sites and interview team members on only 1 occasion, limiting our ability to observe how teams create a sense of place over time. This suggests that future research could employ an ethnographic and longitudinal approach; a deeper engagement with sites over an extended period of time could identify the trajectories by which teams develop a sense of place. Another valuable line of research that could extend our understanding of the importance of place in primary care would be to determine patients' perceptions of their providers' physical space and whether this has an effect on their experience of care. Could the creation of a sense of place be valuable to patients as well?

Despite evidence from this current study and others^{4,6,15} that co-location in 1 physical space is a positive force for teams, the reality for FHTs, and likely for many interprofessional health care teams, is that the ability to physically change their space is often outside of their control, owing to such issues as finances and governance. While we are not underestimating the difficulties in truly unsatisfactory physical spaces and distances, the understanding gained from this study suggests that some solutions do not require a sledgehammer. One solution for teams frustrated by physical space limitations lies not in reconfiguring their physical space but rather in creating a sense of place, which is something that teams do have control over. Through engaging in the kinds of activities that we know to be effective for team building in general, including sharing a common vision and providing multiple avenues and opportunities for coming together as a team, teams can strive, even in the absence of ideal physical spaces, to create that sense of place described by Agnew as a "distinctive coming together in space."11

Conclusion

This theme of a sense of place provides a richer understanding of the potential solutions that interprofessional teams can employ within limited physical spaces to promote team functioning. When there are economic limitations, as well as structural constraints, then it is essential that creating a sense of place be a high priority. Future research should consider this lens as a means for expanding the discussion and examining possible solutions around traditional space issues.

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This project received support from the Ontario Ministry of Health and Long-Term Care and the Ontario College of Family Physicians. The views expressed are those of the authors and do not necessarily reflect those of the Ontario Ministry of Health and Long-Term Care or the Ontario College of Family Physicians. Dr Ryan was funded by the Canadian Institutes of Health Research Community-Based Primary Health Care Innovation Team, Patient-Centred Innovations for Persons with Multimorbidity.

All authors contributed to the concept and design of the study; data gathering, analysis, and interpretation; and preparing the manuscript for submission.

Competing interests

None declared

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- 1. Crampton CD, Webber SS. Relationships among geographic dispersion, team processes, and effectiveness in software development work teams. J Bus Res 2005;58(6):758-65.
- Hua Y, Loftness V, Kraut R, Powell KM. Workplace collaborative space layout typology and occupant perception of collaboration environment. Environ Plann B 2010;37:429-48
- 3. Gum LF, Prideaux D, Sweet L, Greenhill J. From the nurses' station to the health team hub: how can design promote interprofessional collaboration. J Interprof Care 2012:26(1):21-7.
- Oandasan I, Conn LG, Lingard L, Karim A, Jakubovicz D, Whitehead C, et al. The impact of space and time on interprofessional teamwork in Canadian primary health care settings: implications for health care reform. Prim Health Care Res Dev
- Lawn S, Lloyd A, King A, Sweet L, Gum L. Integration of primary health services: being put together does not mean they will work together. BMC Res Notes 2014;7:66.
- 6. Gunn R, Davis MM, Hall J, Heintzman J, Muench J, Smeds B, et al. Designing clinical space for the delivery of interated behavioral health and primary care, I Am Board Fam Med 2015;28(Suppl 1):S52-62.
- Bourdieu P. Social space and symbolic power. Sociol Theory 1989;7(1):14-25.
- Bleakley A. The dislocation of medical dominance: making space for interprofessional care. J Interprof Care 2013;27(Suppl 2):24-30.
- Deleuze G, Guattari F. A thousand plateaus. London, UK: Athlone Press; 1988.
- 10. Laing A, Bacevice PA. Using design to drive organizational performance and innovation in the corporate workplace: implications for interprofessional environments. J Interprof Care 2013;27(Suppl 2):37-45. Epub 2013 May 17.
- 11. Agnew JA. Space and place. In: Agnew JA, Livingstone DN, editors. The SAGE handbook of geographical knowledge. Thousand Oaks, CA: Sage; 2011. p. 316-30.
- 12. Brown IB, Ryan BL, Thorpe C, Markle EKR, Hutchison B, Glazier RH, Measuring teamwork in primary care: triangulation of qualitative and quantitative. Fam Syst Health 2015;33(3):193-202. Epub 2015 Mar 2.
- 13. Charmaz K. Constructing grounded theory. A practical guide through qualitative analysis. 2nd ed. Thousand Oaks, CA: Sage; 2014.
- 14. Malterud K. Qualitative research: standards, challenges and guidelines. Lancet 2001;358(9280):483-8.
- 15. Goldman J, Meuser J, Rogers J, Lawrie L, Reeves S. Interprofessional collaboration in family health teams. An Ontario-based study. Can Fam Physician 2010;56:e368-74. Available from: www.cfp.ca/content/cfp/56/10/e368.full.pdf. Accessed 2019 Aug 13.

This article has been peer reviewed. Cet article a fait l'objet d'une révision par des pairs. Can Fam Physician 2019;65:e405-10