The novel role of paramedics in collaborative emergency centres aligns with their professional identity: A qualitative analysis

Stewart Whalen, BSc*†; Judah Goldstein, PCP, PhD†‡¶; Robin Urquhart, PhD†¶; Alix J.E. Carter, MD, MPH†‡¶

CLINICIAN’S CAPSULE

What is known about the topic?
Little is known about the experiences of paramedics working in CECs.

What did this study ask?
This study sought to ascertain the attitudes, feelings and experiences of paramedics working within the Nova Scotia CEC construct.

What did this study find?
Positive collaboration between RNs and paramedics, need for improved support from leadership, value placed on CECs by communities and this new role aligning with paramedic professional identity.

Why does this study matter to clinicians?
This study will contribute to the ongoing growth of the model by providing clinicians and decision makers with valuable information from frontline workers on CEC functioning.

ABSTRACT

Objective: The Collaborative Emergency Centre (CEC) model of care was implemented in Nova Scotia without an identifiable, directly comparable precedent. It features interprofessional teams working towards the goal of providing improved access to primary health care, and appropriate access to 24/7 emergency care. One important component of CEC functioning is overnight staffing by a paramedic and registered nurse (RN) team consulting with an off-site physician. Our objective was to ascertain the attitudes, feelings and experiences of paramedics working within Nova Scotia’s CECs.

Methods: We conducted a qualitative study informed by the principles of grounded theory. Semi-structured telephone interviews were conducted with paramedics with experience working in a CEC. Analysis involved an inductive grounded approach using constant comparative analysis. Data collection and analysis continued until thematic saturation was reached.

Results: Fourteen paramedics participated in the study. The majority were male (n=10, 71%) with a mean age of 44 years and mean paramedic experience of 14 years. Four major themes were identified: 1) interprofessional relationships, 2) leadership support, 3) value to community and 4) paramedic identity.

Conclusions: Paramedics report largely positive interprofessional relationships in Nova Scotia’s CECs. They expressed enjoyment working in these centres and believe this work aligns with their professional identity. High levels of patient and community satisfaction were reported. Paramedics believe future expansion of the model would benefit from development of continuing education and improved communication between leadership and front-line workers.
l’analyse comparative continue. La collecte de données et l’analyse se sont poursuivies jusqu’à saturation thématique. **Résultats:** Quatorze ambulanciers paramédicaux ont participé à l’étude. La majorité était composée d’hommes (n = 10; 71 %); l’âge moyen s’élevait à 44 ans et les participants comptaient en moyenne 14 ans d’expérience en soins paramédicaux. Se sont dégagés de la collecte de données quatre grands thèmes : 1) les relations interprofessionnelles; 2) le soutien des autorités; 3) la valeur pour la communauté, et 4) la profession paramédicale. **Conclusion:** Les ambulanciers paramédicaux ont fait état, en grande partie, de bonnes relations interprofessionnelles dans les CUC, en Nouvelle-Écosse. Ils ont exprimé du plaisir à travailler dans ces centres et ils croient que ce genre de travail va dans le même sens que les valeurs de la profession. Les patients et la communauté ont aussi indiqué un degré élevé de satisfaction. Toutefois, les ambulanciers paramédicaux sont d’avis que le développement futur du modèle profiterait d’un approfondissement de la formation continue et d’une amélioration des communications entre les autorités et les travailleurs de première ligne.

**Keywords:** Paramedic, Collaborative Emergency Centre, professional identity, EMS

**INTRODUCTION**

The Collaborative Emergency Centre (CEC) model of care was developed in Nova Scotia in response to limited access to primary care and frequent closures of rural emergency departments (EDs), reported to total 19,116 hours in the province between 2009 and 2010.1 A CEC has three components: 1) a primary health care team; 2) urgent care capacity; and 3) emergency care in collaboration with emergency health services (EHS) and the health authority. During extended daytime hours, an on-site physician oversees all aspects of care. Overnight urgent and emergency care is delivered by a paramedic and registered nurse (RN) team, consulting with an off-site physician by telephone. An evaluation by Stylus Consulting reported communities in which a CEC had been implemented experienced a 90%–100% reduction in hours of unplanned overnight ED closures since inception.2

Although the CEC design stems conceptually from other collaborative systems across Canada, there are few, if any, comparable examples of paramedics operating under a CEC-type paradigm.1,4 The purpose of this study was to ascertain the attitudes, feelings, and experiences of paramedics working in these novel centres.

**METHODS**

**Study design**

We conducted a qualitative study with semi-structured interviews of paramedics using data collection and analysis methods informed by grounded theory.5 The study was shaped by research into the expanded role of paramedics in Nova Scotia and emerging research into the CEC model. Ethics approval was obtained from the Nova Scotia Health Authority Research Ethics Board (file # 1020037).

**Participants**

Participants were a convenience sample of paramedics with experience working in a CEC in Nova Scotia. There were no other inclusion or exclusion criteria. The EHS registrar distributed an email invitation to all paramedics registered in the province, directing interested parties to contact the principal investigator (PI). The PI (SW) initiated follow-up with potential participants to ensure that they met the eligibility criteria before scheduling a time to conduct the interview.

**Data collection**

Semi-structured telephone interviews were completed between July 2015 and February 2016. The PI conducted all interviews. Interview questions were modified during data collection to ensure developing categories were explored.

**Analysis**

The analysis employed an inductive grounded approach with a constant comparative analysis.5 The first four interviews were coded and analyzed independently by all members of the research team after which a coding framework was developed to guide categorization. The PI coded and analyzed the remaining transcripts. Open and axial coding of interview transcripts occurred simultaneously. Qualitative analysis was performed manually using Microsoft Word. Data collection and analysis continued until thematic saturation was reached.5 The research team then met to develop categories and integrate these into major themes.
RESULTS

Fourteen paramedics participated in the study. Participants were predominately male (n = 10; 71%), with a mean age of 43.6 ± 8.8 years and 14 ± 9.7 years of paramedic experience, of which 2.5 ± 1.1 years were spent working in CECs.

Four dominant themes were identified: 1) interprofessional relationships; 2) leadership support; 3) value to the community; and 4) paramedic identity.

Interprofessional relationships

The paramedic and RN working relationship was perceived to be difficult initially, with participants viewing RNs as unwelcoming (Table 1, quote 1a). Differences in culture and experience between the two professions were perceived to represent a further challenge to team functioning. For example, participants highlighted their ability to function independently and viewed RNs as uncomfortable doing the same (Table 1, quote 1b).

Despite these challenges, participants viewed their overall experience with RNs positively (Table 1, quote 1c, 1d). They perceived their relationship to be collaborative and strengthened over time through shared experience (Table 1, quote 1e). Participants were overwhelmingly satisfied with off-site physician support (Table 1, quote 1f).

Leadership support

Participants viewed support from EHS operations, the health authority, and the government to be inadequate because of a lack of feedback and follow-up (Table 1, quote 2a, 2b), as well as absent communication on the long-term future of CECs (Table 1, quote 2c).

Participants expressed a desire to expand their scope of practice to include additional skills (Table 1, quote 2d, 2e) and identified continuing medical education (CME) tailored to CEC practice as an area of need (Table 1, quote 2f).

Value to community

Participants viewed CECs as valuable to communities and patients. They perceived high levels of satisfaction from patients who receive care without travelling and waiting for long periods in larger EDs (Table 1, quote 3a, 3b).

DISCUSSION

Effective interprofessional teamwork is an increasingly essential component of quality patient care. To our knowledge, the CEC model is unique in how the paramedic and RN teams work in a fixed location with off-site physician support. Despite initial challenges, our participants reported positive collaboration with their RN colleagues, in line with other studies looking at nurse and paramedic teams.

Organizational support has been identified as an important factor in interprofessional team functioning. Our participants viewed this support as lacking in a number of areas and highlighted CEC-specific CME and improved communication as important to CEC functioning, as well as the future advancement of the model.

The value placed on CECs by communities and high levels of perceived patient satisfaction are positive findings that support CECs as viable and patient centred. The paramedic profession is growing with paramedics acquiring new skills and being employed in novel areas of health care. Our participants viewed the CECs as a continuation of this growth and their work in these centres to be rewarding and in line with their professional identity.

LIMITATIONS

While we used methods informed by grounded theory, this study was exploratory in nature versus theory generating. Future research may use these findings to...

Stewart Whalen et al

CJEM • JCMU

520 2018;20(4)

Downloaded from https://www.cambridge.org/core. IP address: 54.70.40.11, on 27 Feb 2019 at 09:56:05, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/cem.2018.401
Furthermore, we did not obtain the perspectives of RNs or physicians working within the CEC model. Their perspectives may conflict with those of our participants, and future research should investigate this matter.

CONCLUSIONS

Paramedics reported initial challenges but largely positive interprofessional relationships with RNs in the
CECs in Nova Scotia, supporting the viability of these teams in this model. Paramedics enjoy working in this novel role and believe it aligns with their professional identity. High levels of patient and community satisfaction were reported. Participants believe the future expansion of the model in Nova Scotia and beyond would benefit from the development of CEC-specific CME and regular communication between leadership and front-line workers.

Acknowledgements: We would like to acknowledge our participants, without whom this project would not be possible. Tremendous support was provided by both the Dalhousie Department of Emergency Medicine and Division of EMS and EHS Nova Scotia.

Competing interests: The PI was the recipient of two summer studentship grants through the Dalhousie Medical Research Foundation (DMRF) and the Research in Medicine (RIM) program at Dalhousie University, Faculty of Medicine. This research received no further financial support. The authors (SW, JG, RU, and AC) have no financial or other conflicts related to this publication.

REFERENCES


