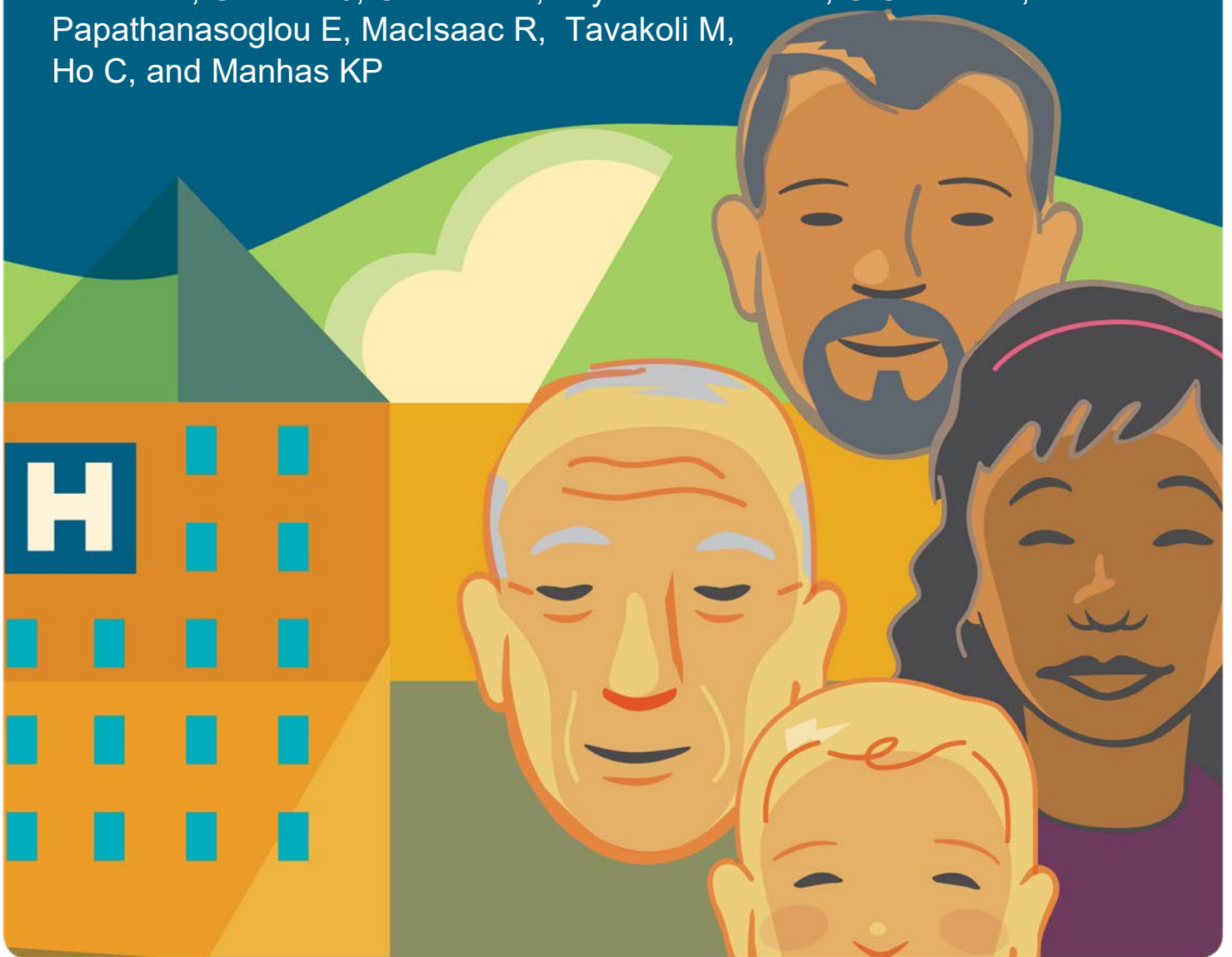


Evaluating the Rehabilitation Advice Line to Support Rehabilitation Concerns during the COVID-19 Pandemic

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Executive Summary

Overview

Alberta Health Services' Rehabilitation Advice Line (RAL) was introduced in May 2020 to provide self-management and wayfinding telehealth advice for Albertans, particularly those with musculoskeletal, neurological, or post-COVID-19 rehabilitation needs. This evaluation suggests that the RAL is a feasible telehealth modality that should be sustained.

The majority of RAL callers contacted the line about pain and called from an urban center. Call backs (e.g. referrals from HealthLink®) drove RAL usage. Callers viewed the RAL as highly usable, but found it differed from in-person visits. Three-months following their call interaction, callers indicated that pain from acute and chronic conditions was still their primary concern; but, they felt that they could manage their condition without medication use. Callers and clinicians considered communication, success, and sustainability issues critical to RAL continuity.

Aims and Methods

The evaluation of the RAL spanned May to October 2020. We conducted a mixed-methods evaluation to: (1) understand how the RAL was used (including call quality and caller demographics); (2) understand perceptions of the RAL itself and call experiences; and (3) understand the impact, if any, of the RAL on caller outcomes. We used secondary data analyses, artificial intelligence and machine learning (AI/ML), surveys, and interviews to clarify RAL feasibility, impact, and sustainability.

Results

RAL Usage

There were 537 clinical call interactions during the evaluation period (which included all interactions regardless of length or whether a clinical note was used). This population was mostly female (321 (59.8%) female callers) and was on average (standard deviation) 55.33 (18.13) years of age. The mean number of incoming calls per week was 21.48. The mean number of call backs per week 24.4. The average talk time per call per week was 14.75

minutes. The average handling time per call per week was 22.23 minutes. These calls were distributed geographically across Calgary Zone (53.2%); Edmonton Zone (26.9%); North Zone (6.3%); Central Zone (8.0%); and South Zone (5.6%). The majority of callers related primarily to musculoskeletal concerns (90%) followed by neurological conditions (5.1%), undefined conditions (4.1%), and COVID-19 (0.7%). The most common reason for calling the RAL was pain due to both acute and chronic conditions.

Perceptions of the RAL and Call Experience

Ten callers, 5 RAL clinicians (n=5) and 2 RAL supervisors (n=2) participated in interviews. Both callers as well as clinicians and supervisors spoke to the two key themes of: (1) communication, and (2) utility and sustainability of the line. Callers spoke to communication during the call, after the call, and external communication as well as the potential for the RAL to help bridge the care gap, increase access to services for rural individuals and during COVID-19, and the need for improved external communication and marketing. Clinicians and supervisors spoke to internal communication, external communication, and technological challenges they experienced in the early days of the line. Clinicians and supervisors also discussed how early success was important for RAL longevity and how the RAL could increase access to rehabilitation services across the system.

Based on the caller experience surveys, if the RAL did not exist, most survey respondents would have called a public health center (14.7%), used the internet (13.3%), or were unsure of what they would have done (14.7%). Clinicians provided education, exercises, and self-management advice to treat at home for 41.1% of survey respondents; 38.2% of respondents followed the clinician advice. The telehealth usability survey demonstrated that most survey respondents found that the RAL was a highly usable telehealth modality. Respondents were satisfied overall and found the RAL simple to use while providing them with a tool to express themselves. The greatest variability in responses was seen for the question about whether the RAL was the same as in-person visits.

Impact

In total, 162 RAL callers were eligible for follow-up survey recruitment; 68 responded (42% response rate). The survey package included the full EQ-5D-5L, the Self-Efficacy for Managing Chronic Disease Scale, the Interpersonal Support Evaluation List, the RAL Patient Experience Questionnaire, the Telehealth Usability Questionnaire, and basic demographic information. Survey respondents had a mean (standard deviation) age of 54.8 (16.4) years. Most respondents were female (45.6%), married (legal/common-law) (51.5%), from a metropolitan center (44.1%), of European origin (61.8%), and had at least some post-secondary or apprenticeship training (61.8%).

Survey respondents' overall satisfaction with the RAL and whether or not they followed the therapist's recommendations was not associated with age, gender, marital status, location, employment status, education level, or ethnicity in a statistically significant manner. Table 1 shows the key correlations found from the survey data.

Table 1 Key correlations from the survey data

Item	Significantly Related to:
Self-efficacy for managing chronic disease	<ul style="list-style-type: none">• Quality of life (EQ-5D-5L Index Score ($r = 0.748, p < 0.01$) and VAS Score ($r = 0.792, p < 0.01$))• Interpersonal support (ISEL-12 ($r = 0.323, p < 0.05$))• Whether someone could become productive quickly using the RAL ($r = 0.281, p < 0.05$)
Becoming productive quickly	<ul style="list-style-type: none">• Quality of life (EQ-5D-5L Index Score ($r = 0.428, p < 0.01$) and VAS Score ($r = 0.399, p < 0.01$))• Education level ($r = 0.373, p < 0.01$)
Education level	<ul style="list-style-type: none">• Ethnicity ($r = 0.337, p < 0.05$)
Employment status	<ul style="list-style-type: none">• Gender ($r = 0.385, p < 0.01$)• Location ($r = -0.317, p < 0.05$)

There were 124 RAL callers (23.1%) who visited the emergency room before, on, or after their RAL call (94 before call and 54 after). The average (standard deviation) number of emergency room visits before the RAL call interaction was 1.298 times (1.799). The average (standard deviation) number of emergency room visits after the RAL call interaction was 0.863 times (1.428).

Recommendations and Limitations

This evaluation revealed the following recommendations:

1. Use a common format for clinical note entry rather than free-text
2. Develop and implement an age-specific, multi-pronged marketing campaign
3. Employ the RAL to assist in managing wait lists
4. Increase training for clinicians manning the line with emphasis on de-escalation training
5. Where appropriate, facilitate or initiative service referrals during RAL call interactions
6. Implement complementary strategies such as a website for callers and clinicians to use a common language (i.e. specific names of body parts) during assessment

Study limitations included lack of control groups for comparison; variability in clinical note structure for AI/ML analyses; and potential recall and selection bias. We demonstrated that Albertans were supported by the RAL when other services closed during the pandemic. Increased marketing and sustainability approaches could expand the RAL impact for growth areas related to rural areas, neurological populations, and the post-COVID-19 population.