

A mixed methods exploration on whether and how community health navigators impact the mental health of adults with chronic health conditions in ENCOMPASS

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Background

- People with chronic health conditions (CHCs) are more susceptible to mental illness such as anxiety or depression.
- Through the Enhancing Community Health Through Patient Navigation, Social Advocacy, and Social Support (ENCOMPASS) study, Community Health Navigators help patients living with CHCs address health burdens.
- CHNs provide support through system navigation, connection to resources, assistance with self-identified health goals, overcoming barriers to care, stress management, and reducing social isolation.
- CHN support may address anxiety and depression; there is limited knowledge on the impact of patient navigators on the mental health (MH) of people with CHCs.

Objectives

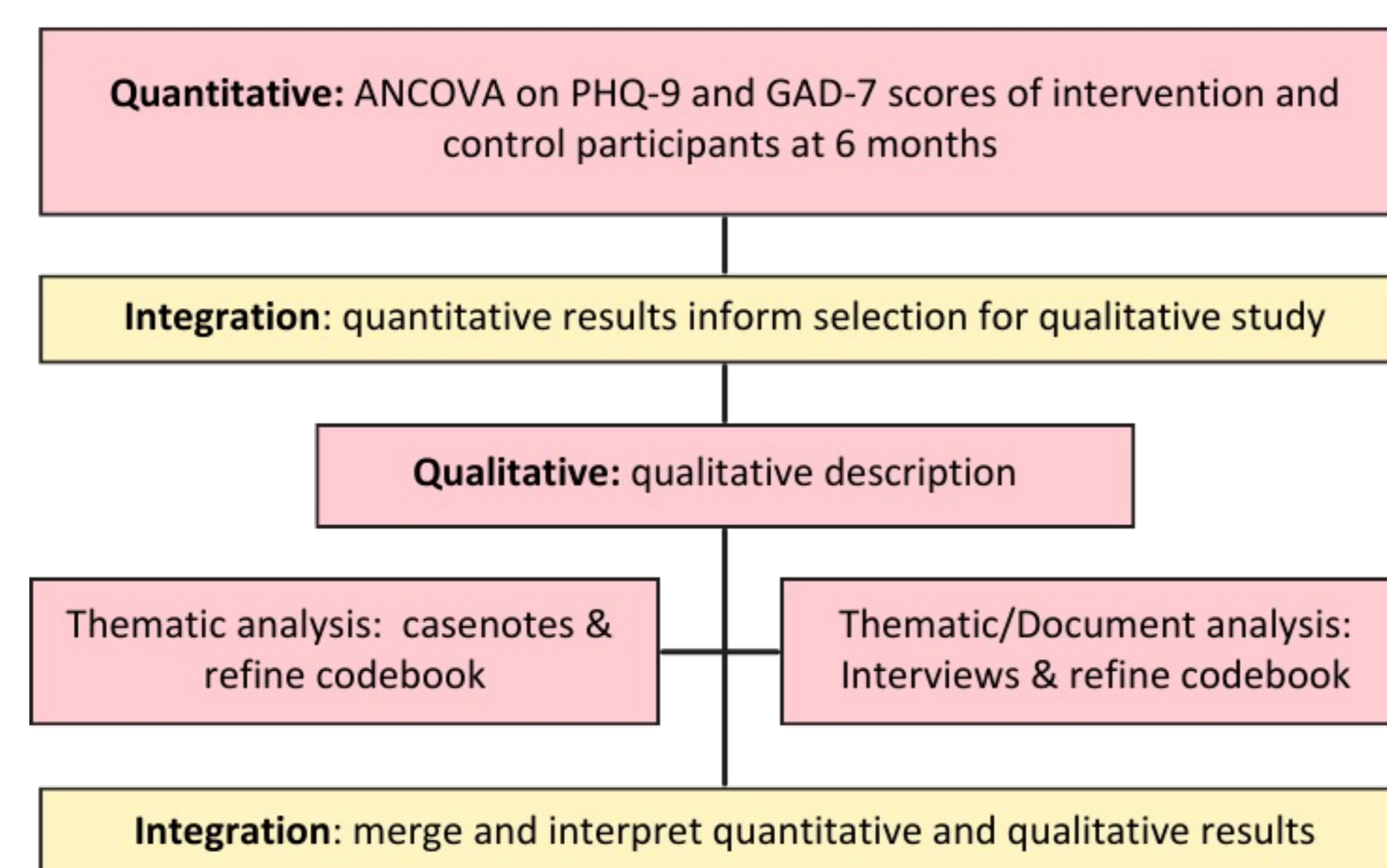
1. To measure the impact of CHN intervention on anxiety and depression
2. To understand how the CHNs address and interact with situations pertaining to MH.

Methods

Population: Adult patients with ≥2 CHCs in ENCOMPASS randomized control trials (n = 183). Patients from Calgary West Central Primary Care Network (CWCPCN) were randomized to intervention (n=90) or control (n=93) groups.

Dataset: Survey data collected self-reported demographics and health information including the Patient Health Questionnaire-9 [PHQ-9] and the Generalized Anxiety Disorder Scale-7 [GAD-7] at zero, 6, and 12 months.

Design: Using a sequential-explanatory mixed-methods design:



Results

Table 1. Summary of patient characteristics at 6-month follow up.

	Total (n=154)	Intervention (n=78)	Control (n=76)
Mean age, years (SD)	70 (12)	72 (12)	68 (12)
Gender, n (%)			
Female	72 (47)	35 (45)	37 (49)
Male	82 (53)	43 (55)	39 (51)
Household annual income (%)			
\$0-\$29,999	24 (16)	10 (13)	14 (18)
\$30,000 to \$59,999	34 (22)	15 (19)	19 (25)
\$60,000 to \$89,999	18 (12)	9 (12)	9 (12)
\$90,000 to \$119,999	21 (14)	10 (13)	11 (14)
\$120,000 up to \$149,999	10 (6)	6 (8)	4 (5)
\$150,000 or more	12 (8)	5 (6)	7 (9)
Prefer not to answer	35 (23)	23 (29)	12 (16)
Racial, ethnic, or cultural group (%)			
White	125 (81)	65 (42)	60 (39)
Aboriginal or Indigenous	3 (2)	2 (1)	1 (0.1)
East Asian	8 (5)	2 (1)	6 (4)
South Asian	5 (3)	3 (2)	2 (1)
Southeast Asian	2 (1)	1 (0.1)	1 (0.1)
Black or African Canadian	4 (3)	2 (1)	2 (1)
Latin American	0 (0)	0 (0)	0 (0)
Middle Eastern	4 (3)	1 (0.1)	3 (2)
Prefer not to answer	2 (1)	1 (0.1)	1 (0.1)
Do not know	1 (0.6)	1 (0.1)	0 (0)
Total number of chronic condition categories, n (%)			
≤2	30 (20)	19 (24)	11 (15)
3-5	74 (48)	31 (40)	43 (57)
6-9	42 (27)	23 (30)	19 (25)
10-13	8 (5)	5 (6)	3 (4)
Mean baseline PHQ-9 score (SD)	5.2 (5.7)	3.9 (5.1)	5.7 (6.1)
Mean baseline GAD-7 score (SD)	3.2 (4.7)	2.5 (3.3)	3.5 (5.2)

Analysis

Sample size for analysis was n = 152. Patients that did not complete 6-month surveys were excluded (n = 29). One intervention and one control group patient were excluded due to missing PHQ-9 and GAD-7 responses. Analyses were performed in R (R 4.2.1 GUI 1.79), and R Studio (2022.07.2+576).

Table 2. Results from ANCOVA on mean depression and anxiety scores between control and intervention groups at 6-month follow-up after adjusting baseline scores.

Comparison	Adjusted Means (95% confidence intervals)		p-value
	Intervention	Control	
Depression Scores	2.28 (1.49 – 3.06)	3.49 (2.70 – 4.29)	p = 0.62
Anxiety Scores	4.82 (3.89 – 5.74)	5.15 (4.21 – 6.08)	p = 0.03*

Statistically significant*

Discussion

Results suggest the CHN intervention did not impact depression symptom severity, but may have potentially reduced anxiety symptom severity.

This research may increase knowledge of how CHNs address mental illness in patients with CHCs, and how mental health concerns interact with the CHN role. Findings might also inform practice for mental health care people with CHCs, which may optimize their health.

Limitations:

- Study may be under-powered. The target sample size (200-400 patients) for this portion of the ENCOMPASS study was not met.
- Depression and anxiety were self-reported, and not clinically diagnosed. This may limit the ability to accurately classify anxiety and depression

Next Steps

- Perform statistical comparisons at 12-month time-point
- Commence data selection and analysis for qualitative component
- Interpretation by merging quantitative and qualitative results
- Invite patient partners from ENCOMPASS Patient-Partner Advisory Committee (EPPAC) to interpret results

Equity, Diversity and Inclusion (EDI) & Sex- and Gender-Based Analysis+ (SGBA+) Considerations:

- The ENCOMPASS team: academics, healthcare professionals, and patient partners diverse in gender, ethnicity, and education.
- Cultural brokers and multilingual staff aided with patient recruitment, consent, and data collection
- Patient-partners will be invited to participate in interpreting study results and knowledge translation.
- Descriptive statistics on race, ethnicity, and gender were reported.
- The student leading this research has certification for the CIHR Institute of Gender and Health Core Competency Module for Sex and Gender in the Analysis of Secondary Data from Human Participants.

