Does a Rheumatoid Arthritis peer support program impact disease outcomes?

Melanie Zibit MBA, MEd[1]; Nancy Sowell, MS [1], LICS; Meghan Courtney, BS [1]; Jing Cui, PhD ; Anne Fossel[1]; Christine Iannaccone[1], MPH; Margo Hanlan BS[1]; Hsun Tsao, MPH[1]; Michael Weinblatt, MD[1]; Nancy Shadick, MD, MPH[1]

[1]Division of Rheumatology, Section of Clinical Sciences, Brigham and Women's Hospital, Boston, MA.

The Patient Rheumatoid Arthritis Social Support Initiative is supported by Amgen

Introduction

- A diagnosis of RA can lead to loss of function, increased pain, depression, and complex medical care.

- Peer support, used effectively in other illnesses, may provide support that can lead to improvement in RA disease outcomes.

Aims

This pilot study evaluates whether a peer support program for RA patients can improve fatigue, functional status (pain, SF-12 PCS), self-efficacy, emotional health (SF-12 MCS) and medication adherence (ASK-20).

Methods

- **Study Population:**
  - 155 patients with RA who are enrolled in the Patient Rheumatoid Arthritis Social Support Initiative (PARASS) at Brigham and Women's Hospital, Boston, MA.
    - *Mentors* (n=60) are patients who provide support to other patients & are trained by a social worker
    - *Mentees* (n= 79) are patients seeking peer support from other patients
    - *Controls* (n=16) are RA patients from the same clinic who are not currently in the PARASS program who are matched to mentees based on gender, age and disease duration.
  - Any patient with RA who is either seeking support or would like to offer support is eligible to be in the program
  - Mentors and mentees are partnered based on age, disease duration co-morbidities, lifestyle, employment status, and physical activity
  - Mentors and mentees make contact by phone, email or with face to face meetings
  - Mentees and controls fill out questionnaires at baseline and after six months of follow-up.
- **Study Outcome:**
  - Mentees enrolled in the PARASS program will have better functional and psychological outcomes compared to the controls after 6 months of follow-up.
- **Predictors:**
  - Less fatigue (VAS, 0-100 lower score = less fatigue)
  - Better functional status (SF-12 physical component score, 0-100 higher score = better functional status)
  - Less pain (VAS, 0-100 lower score = less pain)
  - Better self-efficacy (Arthritis Self-Efficacy Score, 10-100 higher score = better self-efficacy)
  - Better medication adherence (ASK20, 20-100 lower score = better adherence)
- **Covariates** are age, gender, disease duration

Statistical Analyses

- Univariate analysis comparing mentees and controls at baseline
- Linear regression model was used to compare differences between mentees and controls after six months of follow-up

Results

- 10 mentees and 6 controls, to date, have completed baseline and 6 month questionnaires

- There were no differences in age, disease duration and gender

Table 1. Baseline Demographics

Variable	Mentees (n=10)	Controls (n=6)	P-value
Age (mean, SD)	51.8 (13.93)	51.7 (6.06)	0.98
Disease duration (yrs, mean, SD)	15.6 (12.28)	15.7 (12.36)	0.98
Gender (female, %)	9 (90%)	6 (100%)	0.89

- Compared to controls, mentees had a significant improvement in self-efficacy (p=0.05) and showed a trend toward less fatigue (p=0.11) and an improvement in medication adherence (p=0.12).

Table 2. Linear Regression Analysis*

Predictors	Mentees (n=10)		Controls (n=6)		p
	Pre	Post	Pre	Post	
	Mean (± SD)	Mean (± SD)	Mean (± SD)	Mean (± SD)	
Self-efficacy (10-100)	53.5 (± 21.6)	64.3 (± 16.8)	81.1 (±14.3)	74.4 (±9.9)	**0.05**
Fatigue (VAS, 0-100)	55.5 (±34.4)	56.0 (±29.0)	29.2 (±26.4)	51.7 (±28.8)	0.11
Medication Adherence ASK20 (20-100)	42.9 (±13.4)	39.1 (±8.6)	35.7 (±13.5)	39.7 (±10.5)	0.12
Pain (VAS, 0-100)	61.5 (±25.5)	60.5 (±24.8)	30.0 (±33.6)	45.0 (±25.5)	0.22
SF-12 (MCS, 0-100)	44.1 (±12.2)	45.4 (±14.7)	54.4 (±4.3)	52.3 (±9.4)	0.91
SF-12 (PCS, 0-100)	31.1 (±12.0)	34.8 (±16.4)	48.0 (±13.2)	40.4 (±14.9)	0.35

*unadjusted linear regression model

Results

Change in Pain, Fatigue, and Self-Efficacy

T-Tests   P=0.11 (Fatigue)   P=0.22 (Pain Scale)   P=0.05 (Self-Efficacy)
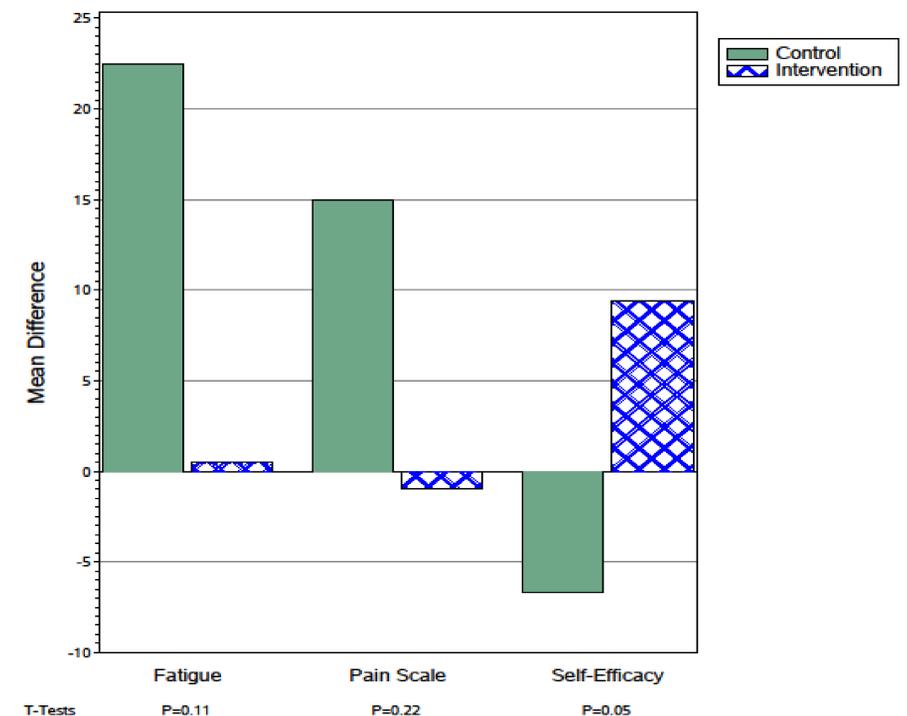
* Higher score = more problematic for pain, fatigue; Higher score = better self-efficacy

Conclusions

- This pilot study suggests that RA patients who receive peer support show improvement in self-efficacy. Peer support programs may be effective in enhancing patients' coping skills.

- Coaches comments on why the program improves self-efficacy and fatigue, *"people are less stressed when they have good social support. Giving hope is a big thing, all the coaches have been there before and can relate to the struggle of RA, being understood is a big relief."*

Limitations

- Further analyses are needed to demonstrate the impact of the program on patient self-reported outcomes of fatigue and medication adherence.