



Introduction

Patients deal with Crohn's disease (CD) by using acquired coping strategies, some of which are adaptive while others are maladaptive (dysfunctional) and worsen the condition of the patient. We have reported that teaching Cognitive-Behavioral and Mindfulness-based stress reduction with daily self-exercise (COBMINDEX) to CD patients decreases their psychological distress¹. Whether COBMINDEX can improve the patient's selection and use of disease-coping strategies was unknown.

Aims & Methods

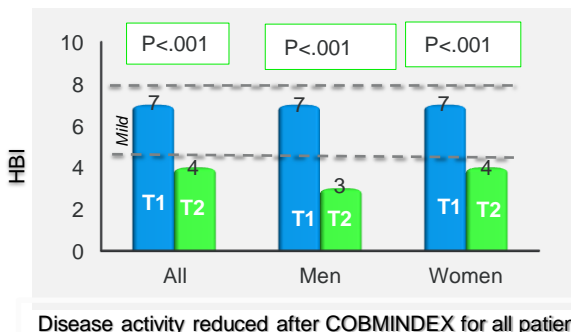
To determine the effect of COBMINDEX intervention on the use of disease-coping strategies by CD patients. Clinical social workers taught COBMINDEX to patients in seven one-on-one 60-minute internet sessions over three months, using a written manual for uniformity. Patients provided clinical and psychological questionnaires (including Carver's Brief COPE Questionnaire, and Diener's Satisfaction with Life Scale) at study commencement and end, and biological samples. Non-parametric statistics and regression analysis were performed in the analysis.

Table 1: Baseline characteristics

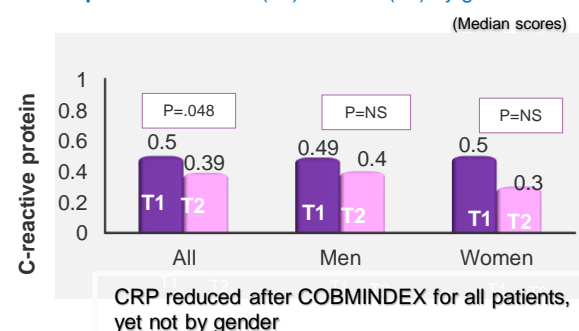
	Participants Number (% or IQR)		
	Men n = 45 (37.5)	Women n = 75 (62.5)	All n = 120 (100)
Age, median [IQR], years	30 [26-39] 22 (49)	31 [26-43.25] 36 (48)	31 [26-42] 58 (48)
Married/paired, n [%]	22 (49)	36 (48)	58 (48)
Religiosity, n [%]			
Secular	24 (53)	51 (68)	75 (63)
Religious	21 (47)	24 (32)	45 (38)
Education level, n [%]			
High school / vocational studies	11 (24)	16 (21)	27 (23)
College or university	34 (76)	59 (79)	93 (78)
Education, median [IQR], years	14 [12-16]	15 [12-16]	15 [12-16]
Economic status, n [%]			
Low	16 (36)	14 (19)	30 (25)
Middle-high	29 (64) *	61 (81)	90 (75)
Current employment, n [%]	35 (78)	53 (71)	88 (73)
Current smoker, n [%]	4 (9)	9 (12)	13 (11)
Length of illness, median [IQR], yr	7.1 [4-13.8] *	4.9 [2.4-12.3]	6 [3.1-12.6]
BMI, median [IQR]	21.8 [20.4-24.8]	22.3 [19.5-25.5]	22 [19.8-25.2]
Current medication, n [%]			
Steroids	3 (7)	3 (4)	6 (5)
Immunomodulators	13 (29) *	7 (9)	20 (17)
Biologics	26 (58) *	27 (36)	53 (44)
Extraintestinal manifestations, n [%]	28 (62)	51 (68)	79 (66)

At baseline, no significant differences between the study groups in demographic, clinical and psychological characters between men and women

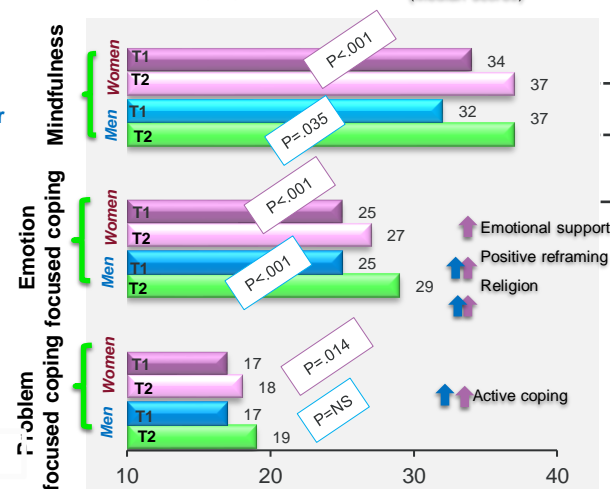
Graph 1: Disease activity (HBI) before (T1) vs. after (T2) by gender



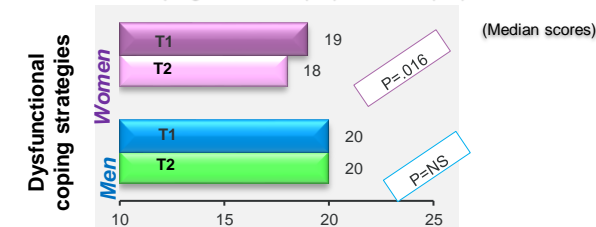
Graph 2: CRP before (T1) vs. after (T2) by gender



Graph 3a: Adaptive coping skills Pre (T1) vs. Post (T2) COBMINDEX



Graph 3b: Maladaptive coping skills Pre (T1) vs. Post (T2) COBMINDEX



Women decreased their use of maladaptive coping more than men

Graph 4: Change in dysfunctional coping is correlated with the change of Satisfaction with life

	Regression Coefficient (P)				
	10%	25%	50%	75%	90%
Emotion-focused coping	.26*	.10	.07	-.20	.06
Problem-focused coping	.16	.11	.22	.39	.10
Dysfunctional coping	-.42***	-.34*	-.47**	-.81**	-1.03**

Change in dysfunctional coping is negatively correlated to change in satisfaction with life

Conclusions

- COBMINDEX reduces HBI and CRP
- COBMINDEX increases adaptive coping skills such as mindfulness, emotional- and problem- focused strategies and decreases the use of dysfunctional strategies
- Women tend to improve their use of stress reduction techniques more than men
- It is recommended to add stress reduction techniques to the medical treatment of Crohn's disease patients.