



Coping in Persons with Multiple Sclerosis during the COVID-19

Pandemic: The Role of Self-Compassion

Nina L.J. Rose¹, Aviva Kohn¹, and Frederick W. Foley^{1,2}

¹Ferkauf Graduate School of Psychology, Yeshiva University, Bronx, NY; ²Holy Name Medical Center, MS Center, Teaneck, NJ



Abstract

Objectives: To describe the impact of COVID-19 on health-related behavior and to explore the relationship between self-compassion and perceived stress, health-related behavior, and coping strategies among a sample of persons with MS (PwMS) during the COVID-19 pandemic

Methods: A cross-sectional self-report survey of patients with MS (N=143) was performed via Qualtrics. Data collected included the self-compassion scale (SCS), Brief COPE, COVID-19 perceived stress scale (PSS), and patient determined disease steps (PDDS). Partial Pearson correlations were used to determine correlations among variables. Regression analysis was then performed to test a model in which self-compassion and self-coldness independently predict perceived stress

Results: 65 participants were excluded list-wise due to missing data. Self-compassion was correlated with problem-focused coping, more hours socializing, and less perceived stress, while self-coldness was correlated with avoidant coping and increased perceived stress.

Conclusions: In line with previous studies, Self-compassion was correlated with more adaptive coping strategies, and less perceived stress. Our findings support the literature suggesting that self-compassion and self-coldness are separate constructs.

Methods and Results

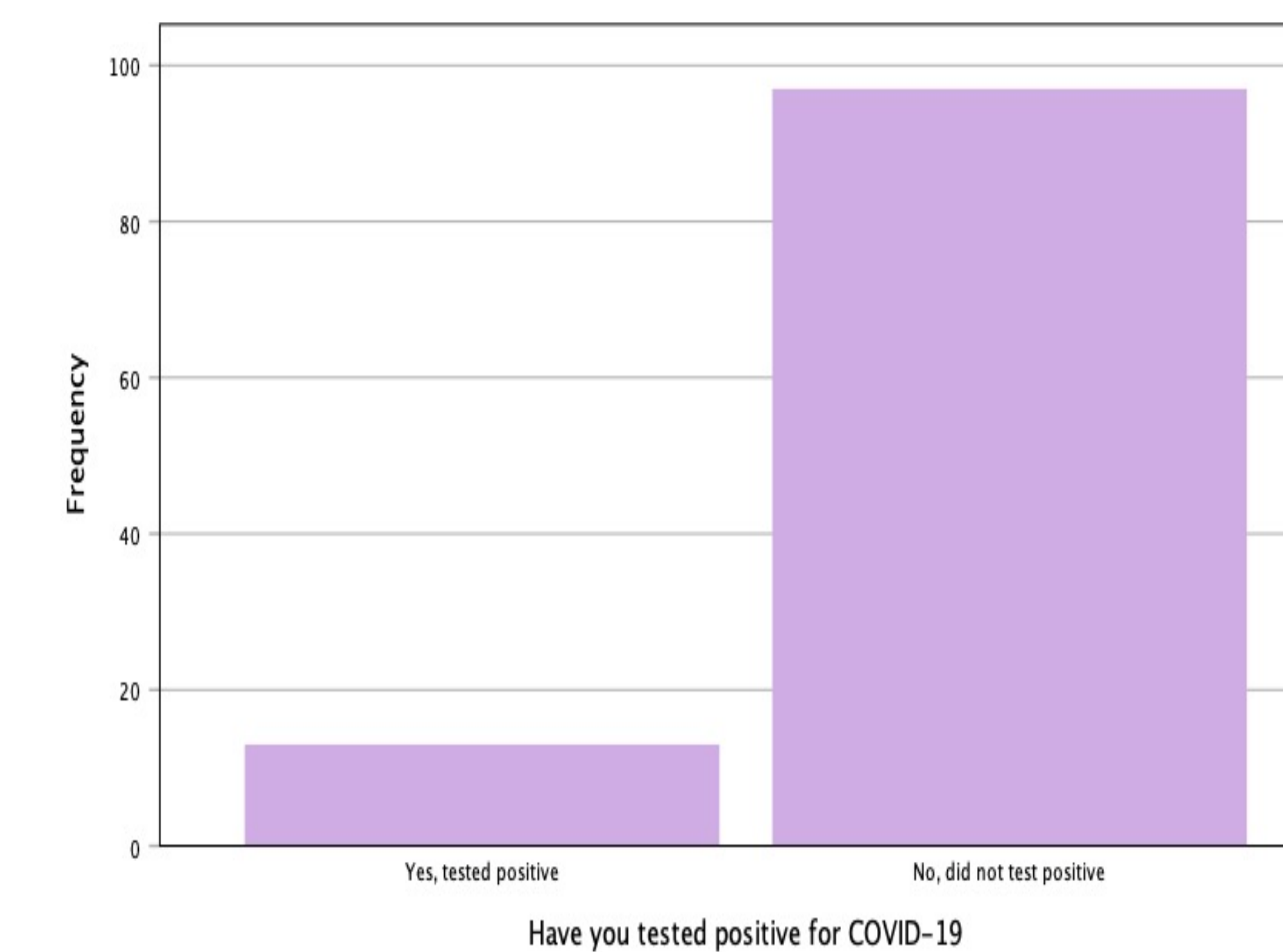
- 143 patients completed a cross-sectional online survey containing self-report measures. Only 78 participants were retained after excluding missing data
- Partial Spearman's Rank correlations, adjusted for the effects of gender, age, and race, were calculated between the positive and negative dimensions of self-compassion (self-compassion and self-coldness), coping strategies, perceived stress, and health-related behaviors.
- Measures Brief COPE¹⁷, Self-Compassion Scale¹⁸, Baseline COVID-19 Questionnaire, Patient Determined Disease Steps²⁰

	M (SD)	Self-Compassion		Self-Coldness	
		r _s	p	r _s	p
Coping					
Problem-Focused¹⁹	2.58, .72	.29	.02**	-.14	.27
Emotion-focused¹⁹	2.27, .58	.15	.25	.15	.25
Avoidant¹⁹	1.65, .344	-.09	.47	.36	<.004**
Acceptance		.40	.003**	.22	.11
Self-blame	3.14, 1.73	-.35	.01	.5	<.001**
Behavioral disengagement	2.95, 1.42	-2.5	.07	.51	<.001**
Stress					
COVID-19 Perceived Stress	26.52, 7.42	-.42	.002**	.62	<.001**
Health Behavior					
Sleep (hrs/night)		.14	.26	-.14	.24
Socializing (hrs/day)		.32	.02**	-.32	.02**
Exercise (mins or hrs /day)		-.04	.79	-.18	.21

*p < .05, **p < .01

Demographics

Demographic Value	Frequency	%	Demographic Value	Mean, SD	Demographic Value	N	%	
Gender	Female	63	81.8%	Disability	4.8, 2.45	Normal	5	6.5
	Male	14	18.2%		Mild Disability	7	9.1	
Race	White	66	85.7%		Moderate Disability	8	10.4	
	Black/African American	5	6.5%		Gait Disability	5	6.5	
	LatinX/Hispanic	4	5.2%		Early Cane	8	10.4	
	Other	2	2.6%		Late Cane	4	5.2	
					Bilateral Support	5	6.5	
Marital Status	Married	48	62.3%		Wheelchair	11	14.3	
	Single	12	15.6%		Bedridden	1	1.3	
	Divorced	8	10.4%		Missing	12	19.4	
	Widowed	3	3.9%	Processing Speed	48.51, SD =12.89	SDMT raw score	70	
	Domestic partnership	4	5.2%		Fatigue Severity Scale	5.6, SD = 3.0	FSS	70
	Separated	1	1.3%					
Level of Education	High School graduate	10	13%					
	Some College no degree	21	27.3%					
	Associates degree	4	5.2%					
	Bachelor's	22	28.6%					
	Master's	16	20.8%					
	PhD	4	5.2%					



- In terms of exercise 20% reported 0 minutes, 51% reported 1-30 minutes, 24% 30mins-1hr, and 5% greater than one hour, which was decreased for 36%, increased for 12%, and unchanged for 52% of respondents.
- In terms of sleep, 5% reported 2-4 hrs, 34% reported 4-6 hrs, 49% reported 6-8 hrs, 11% indicated 8-10 hrs, and .9% reported 1—12 hrs, which was increased for 64%, decreased for 22%, and unchanged for 72% of participants.
- For socializing, 14% reported 0 hrs, 43% reported 1-30 mins, 21% reported 30mins-1 hr, and 22% reported greater than 1 hr. This was increased for 26%, decreased for 17%, and unchanged for 57% of participants.
- 13 participants (12%) reported that they tested positive for COVID-19 and 97 (88%) reported they did not test positive

Conclusions

- Our findings support previous research suggesting that self-compassion and self-coldness are separate constructs, with self-compassion related to protective factors like problem-focused coping strategies, less perceived stress, and more time spent socializing, and self-coldness associated with risk factors for psychopathology including an avoidant coping style, greater perceived stress, self-blame, behavioral disengagement, and social isolation.
- Our results, indicating decreased exercise for 36% of respondents, decreased sleep for 22%, and decreased socializing for 17%, as well as no time socializing for 14% has implications for the future health of PwMS in the aftermath of the pandemic as this could impact wellbeing and prognosis.

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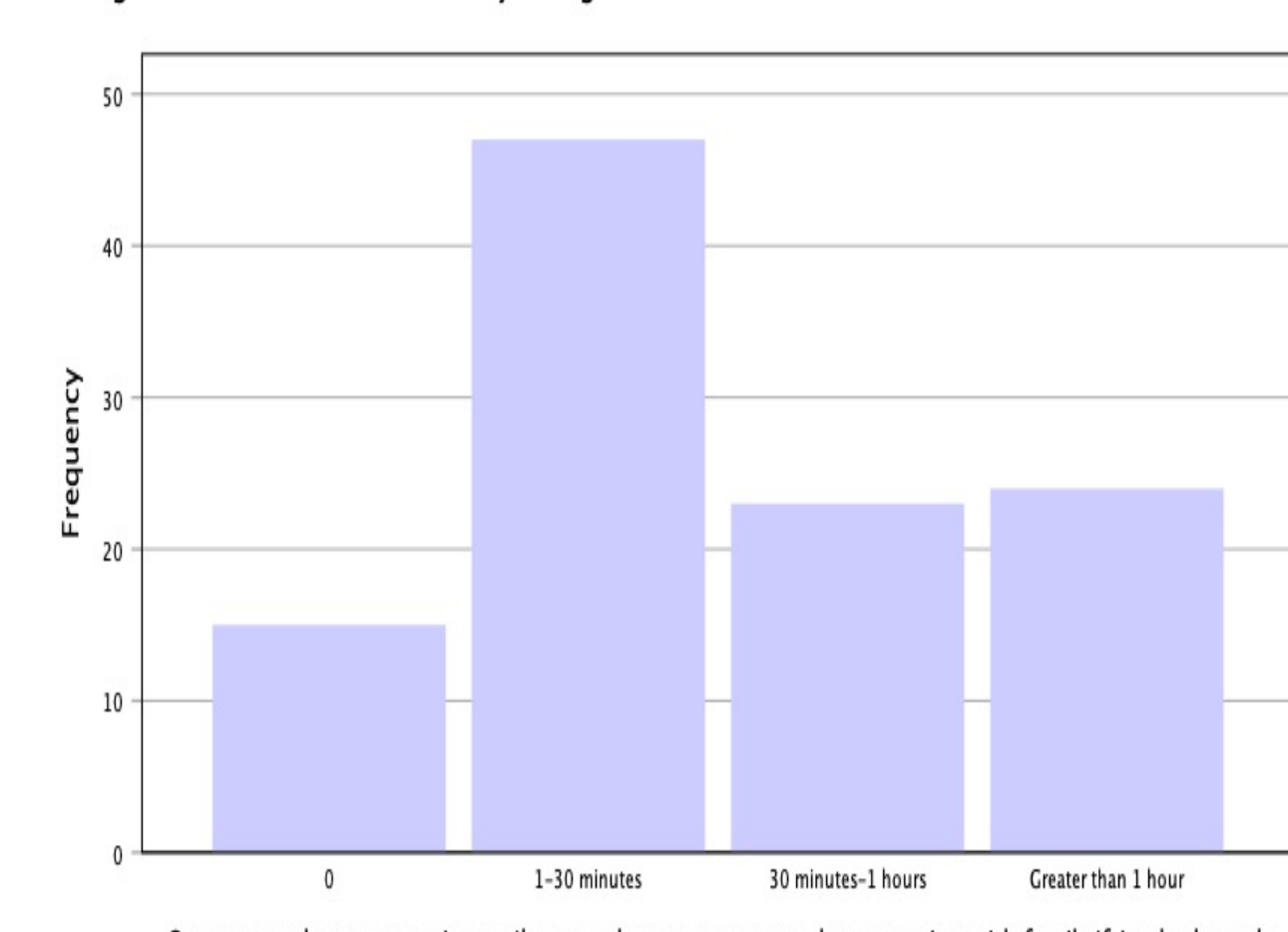
Background

Multiple Sclerosis (MS) is an immune-mediated demyelinating disease of the Central Nervous System (CNS) affecting 1.1 million people in the United States¹.

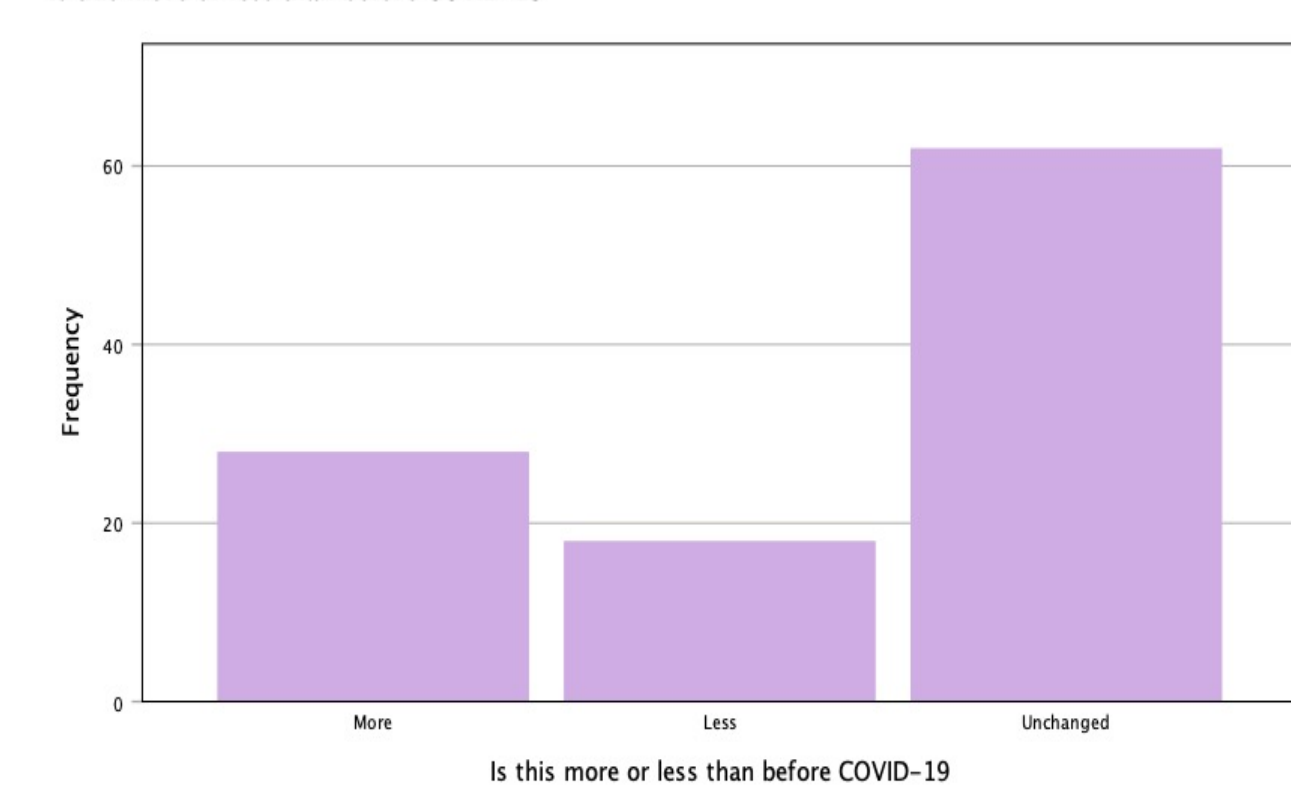
Since the COVID-19 pandemic crisis in March 2020, a handful of studies have reported significant increases in psychological symptoms (i.e., depression, anxiety, fatigue) among pwMS²⁻³. Recently, researchers have identified a two-factor structure of self-compassion (self-compassion vs. self-coldness)⁴⁻⁵. Research suggests that self-compassion promotes adaptive, flexible emotional responding to setbacks, and well-being by promoting cognitive processes like acceptance, positive cognitive reappraisal, and problem solving.⁶⁻⁹ While, self-coldness, the negative counterpart of SC, is associated with psychopathology (e.g., depression and anxiety).⁵ Although self-compassion has been linked to greater health related quality of life and MS resiliency in prior studies¹⁰, no research has yet examined the two-factor structure of SC in MS and its effect on perceived stress and coping.

Studies suggest that SC is adaptive in crises. SC is associated with reduced symptoms of post-traumatic stress¹²⁻¹⁴, and posttraumatic growth¹⁵. In a study of SC in a Chinese sample, Lau, Chan & Ng (2020)¹⁶ found that SC buffered the impact of COVID-19-Related Threats on psychological stress, while self-coldness, the negative counterpart of self-compassion, amplified this relationship. The researchers also found that self-compassion buffered the impact of perceived COVID-19 threats on perceived benefits of the pandemic.

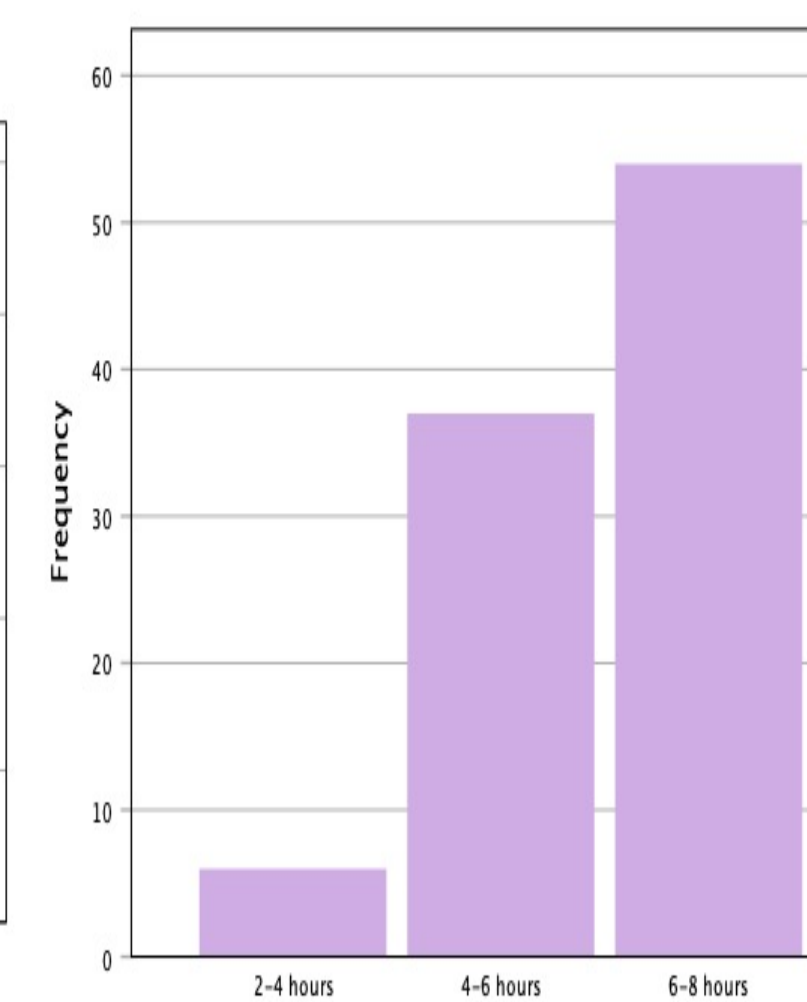
On average, how many minutes/hours a day are you currently connecting with family/friends through telecommunication or virtually during COVID-19?



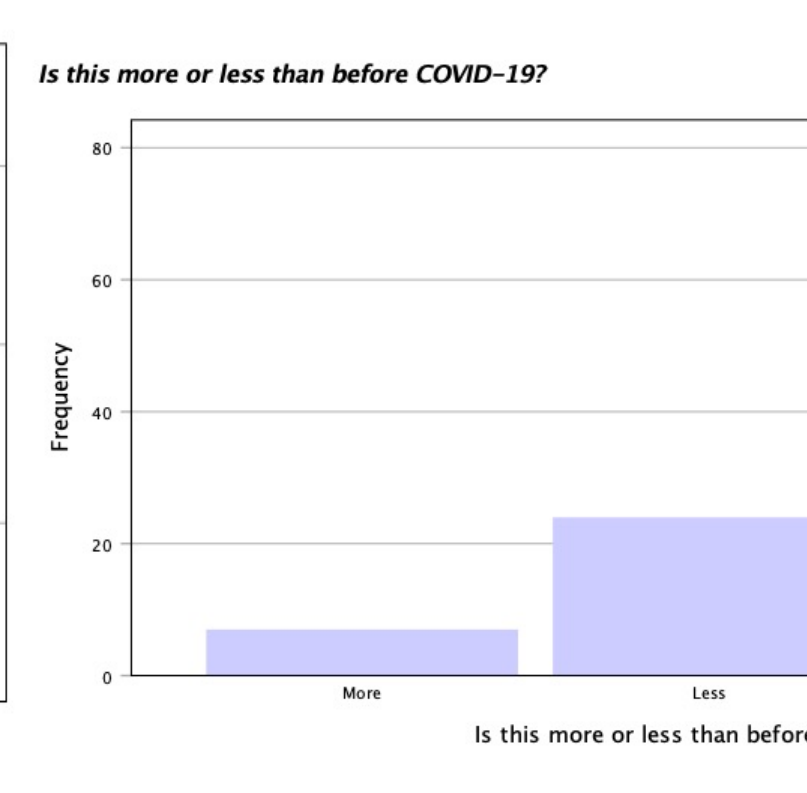
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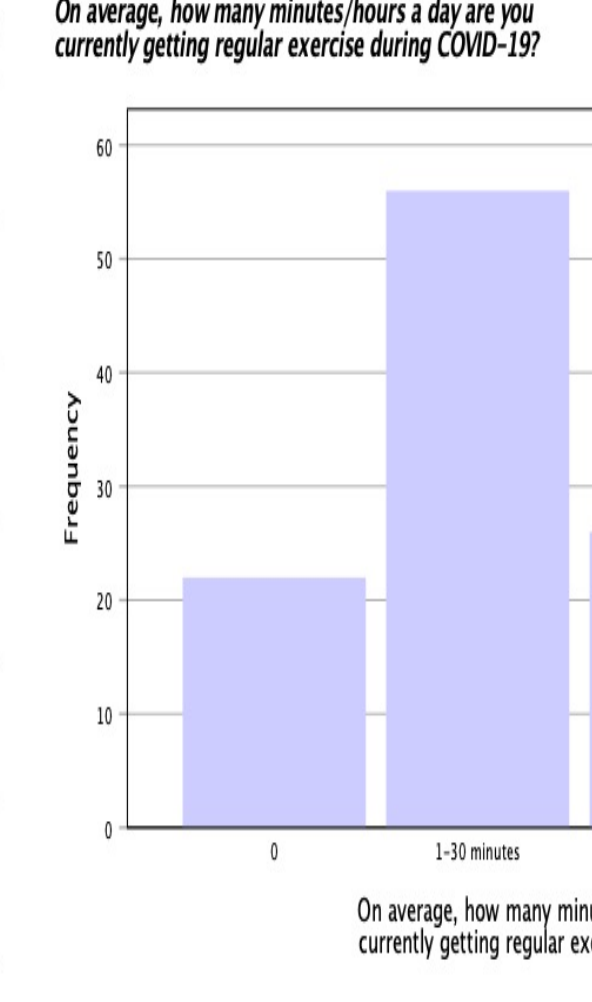
How much sleep are you getting each night during COVID-19?



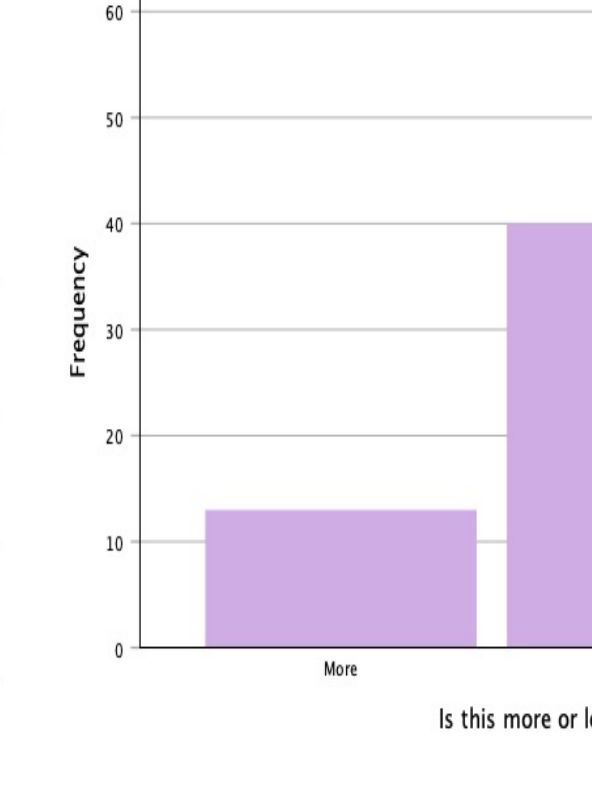
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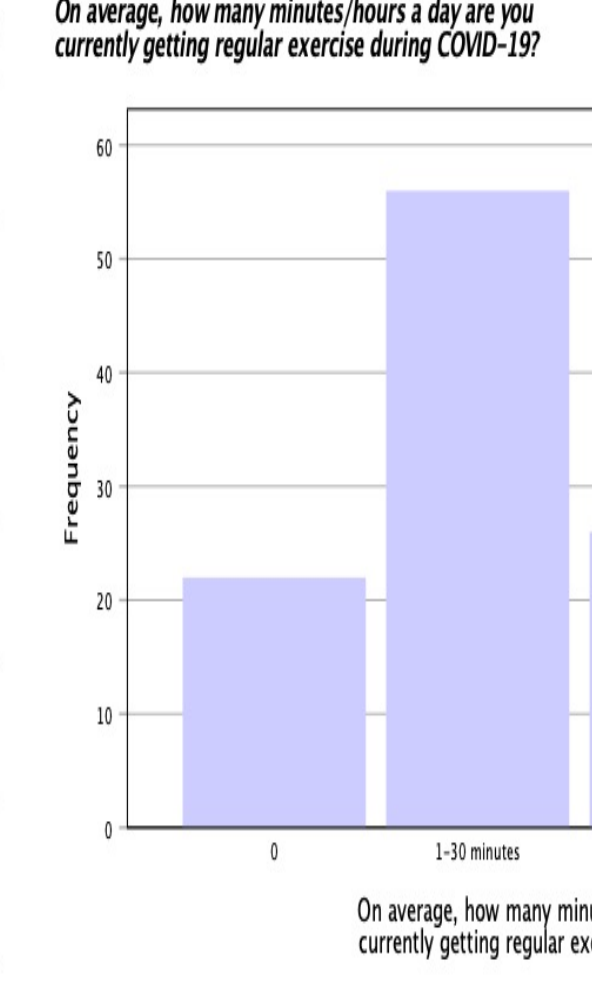
On average, how many minutes/hours a day are you currently getting regular exercise during COVID-19?



On average, how many minutes/hours a day are you currently getting regular exercise during COVID-19?



Is this more or less than before COVID-19?



Is this more or less than before COVID-19?

