Vocational Rehabilitation for Patients with Post COVID-19
Improvement on Quality of Life, Physical Function and Return to Work

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Introduction

- Four out of five post COVID-19 patients were on parttime or fulltime sick leave as of March 2023. Evidence-based guidelines for post COVID-19 are lacking, especially for vocational rehabilitation.
- Purpose of this study was to assess if a Vocational Rehabilitation (VR) program improves quality of life, physical functioning, and return to work for post COVID-19 patients.

Methods

Participants

- A total of 91 post COVID-19 patients who were referred to Heliomare rehabilitation center and finished the VR program.

Outcome measures

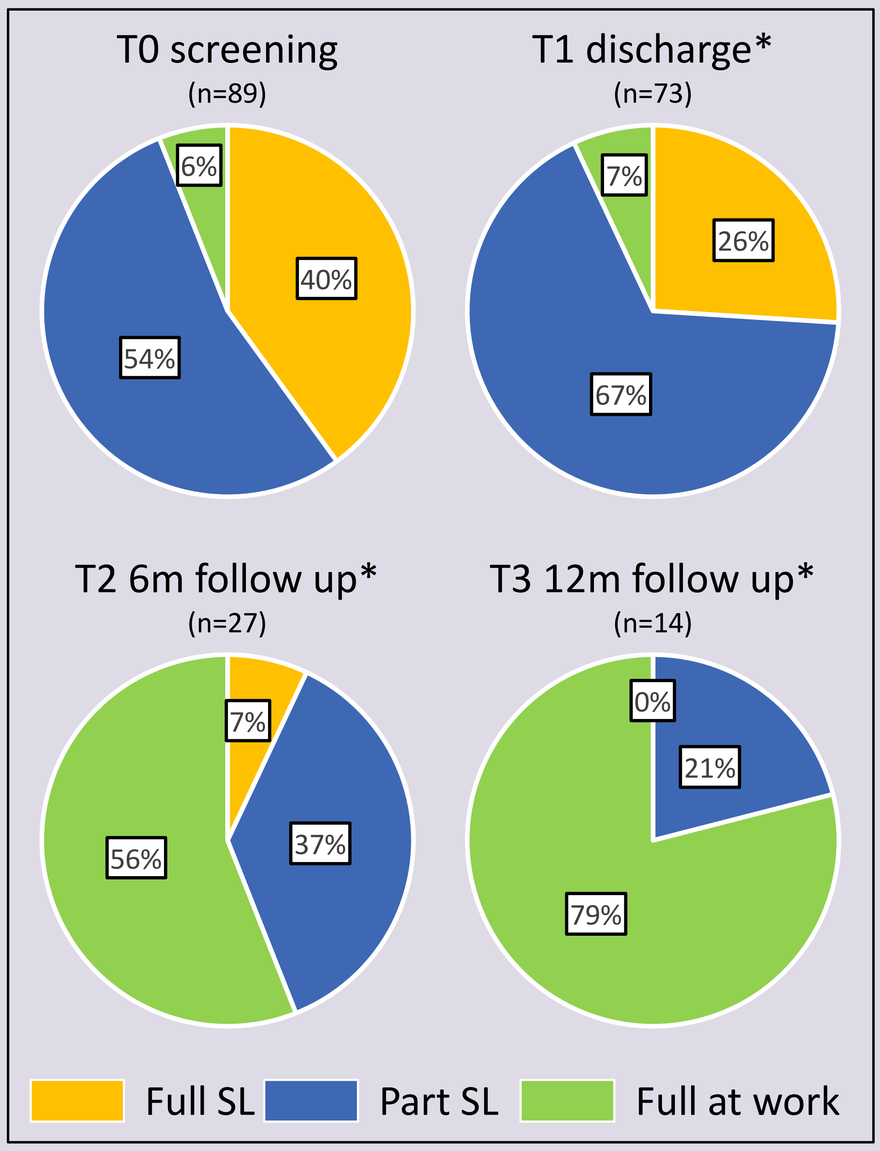
- Patient reported questionnaires were filled in at screening (T0), discharge (T1), 6 months follow-up (T2) and 12 months follow-up (T3).
- Outcomes: quality of life (EQ5D), pain (PDI & NRS), physical functioning (RAND-PF), perceived effect of treatment (GPE), health related productivity loss (iPCQ) & work ability (WAI).

Characteristics of participants

Characteristics	VR (n=91)
Age	48.7 (10.1)
Sex (female %)	64.8
BMI	27.9 (6.2)
Hospitalized (yes %)	14.3
ICU (yes %)	3.3
Work Sector (%)	
Health and wellbeing	31.5
Education	20.2
Commercial service	15.7
Public sector	14.6
Industry	11.2
Construction industry	2.2
Other	4.5

Values are presented as mean (SD) or number (%) of patients
BMI= body mass index; ICU= Intensive Care Unit

Results on work participation



SL: Sick leave,
*: Significant difference (*p<0.05*) between time point compared to screening (T0)

Results on quality of life, physical functioning & work ability

	T0	T1	T2	T3	
	mean (SD)	mean (SD)	mean (SD)	mean (SD)	*p* value
EQ5D (0-1)					
T0 vs T1 (n=61)	0.64 ± 0.23	0.76 ± 0.19*			<0.001
T0 vs T2 (n=22)	0.71 ± 0.18		0.82 ± 0.16*		0.032
T0 vs T3 (n=9)	0.61 ± 0.25			0.78 ± 0.16	0.069
RAND-PF (0-100)					
T0 vs T1 (n=71)	60.0 ± 19.6	71.5 ± 21.0*			<0.001
% hours working					
T0 vs T1 (n=68)	31.5 ± 31.0	35.5 ± 32.1			0.224
T0 vs T2 (n=26)	39.7 ± 37.0		79.6 ± 32.5*		<0.001
T0 vs T3 (n=14)	31.3 ± 36.0			91.1 ± 20.4*	<0.001
General WAI (0-10)					
T0 vs T1 (n=70)	3.2 ± 2.2	4.9 ± 2.5*			<0.001
T0 vs T2 (n=27)	3.5 ± 2.4		5.9 ± 2.4*		<0.001
T0 vs T3 (n=14)	3.1 ± 1.9			7.4 ± 1.2*	<0.001

WAI; Work Ability Index, T0: screening, T1: discharge, T2: 6 months follow-up, T3: 12 months follow-up
*: Significant difference (p<0.05) between time point compared to screening (T0)

Conclusions

The VR program improved QoL, physical functioning, and return to work for post COVID-19 patients for at least a period of 6-months follow-up. Due to insufficient data from the 12-months follow-up, conclusions regarding sustained recovery should be taken with precaution.

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