

An hospital-based integrated Healthy Life Program among PLWH: ongoing data from an outpatients clinic including Infectious Disease specialist, nutritionist, personal trainer and psychologist at “D. Cotugno” hospital, Naples, Italy

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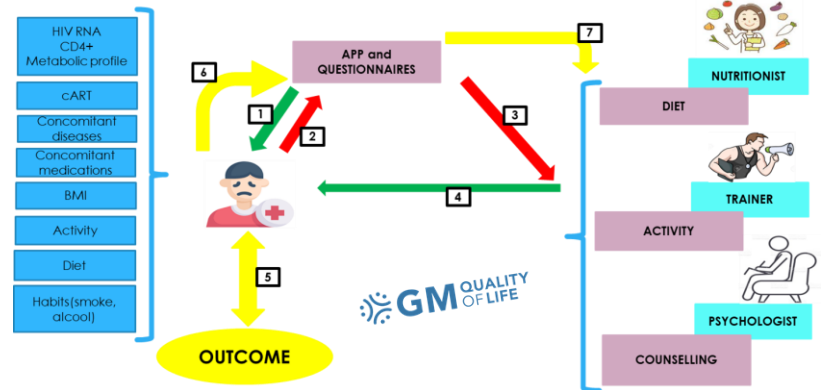
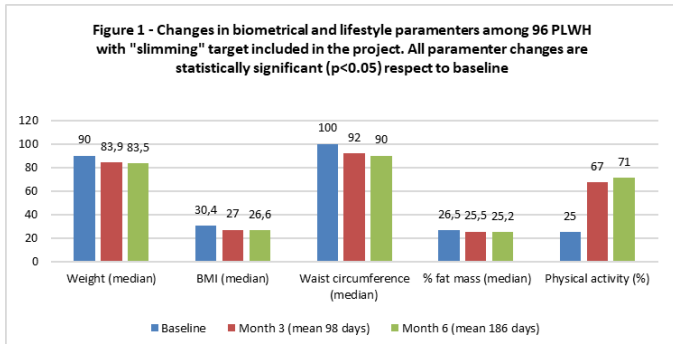
PURPOSE

Well-being (“the 4th 90”) is an achievable goal among People Living With HIV (PLWH). Healthy lifestyle and stable psychological profile are important parts of well-being. Indeed, even among viro-suppressed PLWH, having unhealthy lifestyle and being anxious and/or depressed may contribute to metabolic disorders and poor retention in care. At “D. Cotugno” hospital in Naples, Italy, a multidisciplinary program, integrating Infectious Disease (ID) specialist, nutritionist, trainer and psychologist has been implemented for improving healthy lifestyle and good psychological attitude in selected PLWH. We present mid-term results of this project.

	All patients	Target: Slimming	Target: Maintenance/Increase of weight
N° patients	122	96	26
Age (median; IQR)	44; 15	46; 13,3	41,5; 16,5
Gender: male (n;%)	96; 79	72; 75	24; 86
Sexual orientation (n;%)			
Heterosexual	48; 39	42; 44	6; 23
Homosexual	65; 53	45; 47	20; 77
Other/Not known	11; 8	11; 9	0; 0
Origin: italian (n;%)	107; 88	81; 84	26; 100
Initial weight (median; IQR)	84,3; 26,2	90,0; 20,5	67,7; 11,2
Initial BMI (median; IQR)	28,1; 8,7	30,4; 8,0	22,7; 1,8
Initial waist circumference (median; IQR)	95,5; 19,5	100; 19,0	84; 5
% fat mass (median; IQR)	24,2; 11,9	26,5; 9,6	16; 5,6
% free fat mass (median; IQR)	75,7; 11,7	73,4; 9,3	83,2; 6,4
% total body water (median; IQR)	55,7; 8,6	54; 6,8	61,8; 4
% extracellular body water (median; IQR)	45,3; 3,4	45,2; 2,8	45,7; 4,3
Physical activity at baseline: yes (n,%)	40; 33	24; 25	15; 58
On ART (n;%)	122; 100	96; 100	26; 100
Triple ART (n;%)	88; 72	66; 69	20; 78
INI-based ART (n;%)	90; 74	69; 72	20; 78
Psychological assessment (HADS)*:			
Anxiety, normal (n; %)	34; 40,0	25; 36,2	8; 50,0
Anxiety, borderline (n; %)	26; 30,6	22; 33,3	3; 18,7
Anxiety, clinical (n; %)	25; 29,4	19; 28,8	5; 31,3
Depression, normal (n; %)	52; 61,2	41; 62,1	10; 62,5
Depression, borderline (n; %)	20; 23,5	15; 22,7	4; 25
Depression, clinical (n; %)	13; 15,3	10; 15,2	2; 12,5

HADS: Hospital Anxiety and Depression Scale, available for 85 PLWH only

Haemato-chemical parameters (median; IQR):	Baseline	Last follow-up*	Significance p <0.05 (Test t Student)
CD4 (cell/mL)	853; 421	803; 421	0,298
Creatinine (mg/dL)	1,0; 0	1,0; 0	0,326
AST (UI/mL)	24,9; 11	23,6; 8	0,334
ALT (UI/mL)	30,1; 13	33; 40	0,710
Triglycerides (mg/dL)	118,6; 63	100,1; 40	0,015
Total cholesterol (mg/dL)	183; 39	178,9; 39	0,391
HDL cholesterol (mg/dL)	47,5; 15	45,5; 13	0,347
LDL cholesterol (mg/dL)	108,9; 32	110,3; 32	0,783



METHODS

Participating PLWH were addressed to this outpatients clinic on the basis of clinical evaluation by ID specialists during periodical visits. At first visit, patients underwent to an anamnesis about lifestyle, biometrical evaluation including bio-impedencemetry and psychological interview, with completion of SF-36 (Short Form Health Survey) and HADS (Hospital Anxiety and Depression Scores) questionnaires. A personalized diet and physical activity plan were proposed to each patient. A web-app was available to contact specialists during the project. On-site follow-up visits were scheduled at months 3, 6, 12. The program started in July 2022. For this mid-term evaluation, we present data of all PLWH who reached at least the 3-months follow-up. We defined as goal: ≤ 2 BMI points for those with “slimming” target; BMI within ± 2 points for “maintenance” target; BMI ≥ 2 points for “increase” target.

RESULTS

122 PLWH performed initial visit (tab1). 69 patients (56%) abandoned the project, mostly after the initial assessment. Among remaining, 53, 27 and 19 patients were respectively followed-up, at least a 3-months, 6-months and 12-months. Among 53 patients who completed at least one follow-up visits, 44 had “slimming” target, the remaining 9 “maintenance/increase” target. Among those with “slimming” target, the target was reached by 39%, 68% and 78% of patients respectively at 3-months, 6-months and 12-months of follow-up. Among those with “maintenance/increase” target, the goal was reached by 66%, 80% and 100% of patients at different follow-up time. All biometrical parameters significantly improved among those with “slimming” target at 3-months and 6-months (figure 1), while it was stable among those with “maintenance/increase” target. Selected haemato-chemical parameters are available for 53 patients only: all showed no significant changes, but triglycerides, that significantly decreased (table 2). Follow-up SF-36 and HADS questionnaires are available respectively for 18 and 27 PLWH (table 3): all scores about health improved while anxiety and depression significantly decreased.

	Baseline	Last follow-up*	Significance p <0.05
SF 36 questionnaire			
General Health (median; IQR)	65; 35	70; 25	0.003
Physical functioning (median; IQR)	95; 22	100; 10	0.003
Limitation due to physical health (median; IQR)	75; 44	94; 19	0.001
Limitation due to emotional health (median; IQR)	75; 45	100; 17	0.000
Vitality (median; IQR)	65; 35	70; 35	0.023
Mental health (median; IQR)	60; 31	80; 24	0.002
Social functioning (median; IQR)	62; 37	87; 38	0.000
Pain (median; IQR)	77; 55	100; 10	0.000
HADS questionnaire			
HADS for anxiety:			
Normal (n; %)	12; 44	16; 59	0.011
Borderline (n; %)	9; 33	8; 30	
Clinical (n; %)	6; 22	3; 11	
HADS for depression:			
Normal (n; %)	18; 66	21; 77	0.000
Borderline (n; %)	7; 26	6; 23	
Clinical (n; %)	2; 8	0; 0	

* for the low number of follow-up evaluations, the last available follow-up have been included, independently by time-points. 18 follow-up evaluations are available for SF36 and 27 per HADS.

CONCLUSIONS

These preliminary data suggests that such an integrated approach has a potential high impact in improving quality of life of PLWH.

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