

**Supplementary Table 1: Database search strategy**

Database	Search terms
<b>Pubmed</b>	((COVID-19[Title/Abstract] OR "Novel Coronavirus"[Title/Abstract] OR "2019 novel coronavirus"[Title/Abstract] OR 2019-nCoV[Title/Abstract] OR SARS-CoV-2[Title/Abstract]) AND (isolation[Title/Abstract] OR lock*[Title/Abstract] OR self-isolation[Title/Abstract])) AND ("Physical activity"[Title/Abstract] OR exercise[Title/Abstract] OR walking[Title/Abstract] OR running[Title/Abstract] OR cycling[Title/Abstract] OR swimming[Title/Abstract] OR sports[Title/Abstract] OR sedentary[Title/Abstract] OR "sedentary behaviour"[Title/Abstract] OR activity[Title/Abstract] OR "screen time"[Title/Abstract] OR sitting[Title/Abstract])
<b>CINAHL, PSYCInfo and SPORTdiscus (searched via EBSCOHOST)</b>	Title and abstract: ((COVID-19 OR "Novel Coronavirus" OR "2019 novel coronavirus" OR 2019-nCoV OR SARS-CoV-2) AND (isolation OR lock* OR self-isolation) AND ("Physical activity" OR exercise OR walking OR running OR cycling OR swimming OR sports OR sedentary OR "sedentary behaviour" OR activity OR "screen time" OR sitting))
<b>Embase (searched via OVID)</b>	Title and abstract: ((COVID-19 OR Novel Coronavirus OR 2019 novel coronavirus OR 2019-nCoV OR SARS-CoV-2) AND (isolation OR lock* OR self-isolation) AND (Physical activity OR exercise OR walking OR running OR cycling OR swimming OR sports OR sedentary OR sedentary behaviour OR activity OR screen time OR sitting))
<b>Social Sciences Citation Index</b>	Topic (title, abstract, keyword, and keyword plus) ((COVID-19 OR "Novel Coronavirus" OR "2019 novel coronavirus" OR 2019-nCoV OR SARS-CoV-2) AND (isolation OR lock* OR self-isolation) AND ("Physical activity" OR exercise OR walking OR running OR cycling OR swimming OR sports OR sedentary OR "sedentary behaviour" OR activity OR "screen time" OR sitting))
<b>Cochrane</b>	Title, abstract and keyword ((COVID-19 OR "Novel Coronavirus" OR "2019 novel coronavirus" OR 2019-nCoV OR SARS-CoV-2) AND (isolation OR lock* OR self-isolation) AND ("Physical activity" OR exercise OR walking OR running OR cycling OR swimming OR sports OR sedentary OR "sedentary behaviour" OR activity OR "screen time" OR sitting))
<b>Scopus</b>	Title, abstract and keyword ((COVID-19 OR "Novel Coronavirus" OR "2019 novel coronavirus" OR 2019-nCoV OR SARS-CoV-2) AND (isolation OR lock* OR self-isolation) AND ("Physical activity" OR exercise OR walking OR running OR cycling OR swimming OR sports OR sedentary OR "sedentary behaviour" OR activity OR "screen time" OR sitting))
<b>Opengrey</b>	((COVID-19 OR "Novel Coronavirus" OR "2019 novel coronavirus" OR 2019-nCoV OR SARS-CoV-2) AND (isolation OR lock* OR self-isolation) AND ("Physical activity" OR exercise OR walking OR running OR cycling OR swimming OR sports OR sedentary OR "sedentary behaviour" OR activity OR "screen time" OR sitting))

**Supplementary Table 2: Details of excluded studies based on ethical approval**

Author	Title	Study Location
Barchetta, et al. (2020)	Effects of work status changes and perceived stress on glycaemic control in individuals with type 1 diabetes during COVID-19 lockdown in Italy.	Italy
Barone et al. (2020)	The impact of COVID-19 on people with diabetes in Brazil	Brazil
Barrea et al (2020)	Does Sars-Cov-2 threaten our dreams? Effect of quarantine on sleep quality and body mass index	Italy
Brand, Timme, and Nosrat, Sanaz (2020)	When Pandemic Hits: Exercise Frequency and Subjective Well-Being During COVID-19 Pandemic	Global - Austria, Brazil, China, Finland, Germany, Greece, Iceland, Iran, Italy, Malaysia, Philippines, Russia, Spain, Switzerland, Taiwan, Turkey, UK, USA
Cacioppo et al (2020)	Emerging health challenges for children with physical disabilities and their parents during the COVID-19 pandemic: The ECHO French survey	France
Capaldo et al (2020)	Blood Glucose Control During Lockdown for COVID-19: CGM Metrics in Italian Adults With Type 1 Diabetes.	Italy
Chouchou et al (2020)	The importance of sleep and physical activity on well-being during COVID-19 lockdown: reunion island as a case study.	Reunion Island
Cransac-Miet et al (2020)	Impact of COVID-19 lockdown on lifestyle adherence in stay-at-home patients with chronic coronary syndromes: Towards a time bomb.	France
de Haas, Faber, and Hamersma (2020)	How COVID-19 and the Dutch 'intelligent lockdown' change activities, work and travel behaviour: Evidence from longitudinal data in the Netherlands	The Netherlands
Di Renzo et al (2020)	Eating habits and lifestyle changes during COVID-19 lockdown: an Italian survey	Italy
Jelaca et al (2020)	A REPORT ON THE IMPACTS OF THE CORONAVIRUS SARS-COV-2 SHELTER-IN-PLACE ORDER" ON FITNESS AND WELL-BEING.	USA
Gornicka et al (2020)	Dietary and Lifestyle Changes During COVID-19 and the Subsequent Lockdowns among Polish Adults: A Cross-Sectional Online Survey PLifeCOVID-19 Study.	Poland
Khader and Jabeen (2020)	A cross sectional study reveals severe disruption in glycemic control in people with diabetes during and after lockdown in India	India
Mutz and Gerke (2020)	Sport and exercise in times of self-quarantine: How Germans changed their behaviour at the beginning of the Covid-19 pandemic	Germany
Pepin et al (2020)	Wearable Activity Trackers for Monitoring Adherence to Home Confinement During the COVID-19 Pandemic Worldwide: Data Aggregation and Analysis.	Global - Australia, Canada, China, France, Germany, Ireland, Italy, Japan, Netherlands, Singapore, Spain, Sweden, Switzerland, UK, USA
Radtke et al (2020)	Recommended shielding against COVID-19 impacts physical activity levels in adults with cystic fibrosis	Switzerland

Rastogi and Hiteshi (2020)	Improved glyceimic control amongst people with long-standing diabetes during COVID-19 lockdown: a prospective, observational, nested cohort study	India
Sassone et al (2020)	Impact of COVID-19 Pandemic on Physical Activity in Patients With Implantable Cardioverter-Defibrillators	NR
Verma et al (2020)	Impact of lockdown in COVID 19 on glyceimic control in patients with type 1 Diabetes Mellitus	NR
Zhang et al (2020)	Emotional eating in pregnant women during the covid-19 pandemic and its association with dietary intake and gestational weight gain	China

Supplementary Table 3: Characteristics of included studies

Author	Study design	Country	Population	Total participants	Age Range	Age Mean (SD)	Sex % Female	Physical activity measurement tool	Sedentary behaviour measurement tool	Total NOS score	Description of lockdown*
Ammar et al (2020)	Cross-sectional	Global	Adults - general	1047	18+	NR	53.8	IPAQ	IPAQ	6	Unspecified 'confinement conditions'
Asiamah et al (2020)	Cross-sectional	Ghana	Adults - General	621	18-64	NR	35	Questionnaire - not validated	Questionnaire - not validated	5	'The enforcement of social distancing protocols in affected regions'
Assaloni et al (2020)	Observational	NR	Adults - Type 1 diabetes	154	NR	44.8 (12.5)	45.50	Godin-Leisure Time Exercise questionnaire	None	5	'National Quarantine'
Barwais (2020)	Cross-sectional	Saudi Arabia	Adults - General	244	18-50	33.8 (7.7)	36.90	IPAQ-SF	None	5	'Imposed a 24-hour curfew on the cities of Mecca and Medina, with limited exceptions for safety and life. All schools and universities were also closed, international and domestic flights were suspended, and attendance at workplaces in all government and private sector businesses was prohibited. In addition, all malls, markets, restaurants, and gatherings on beaches were forbidden [5]. The KSA also suspended sporting activities, events, and competitions, including those at private sports halls and centres'
Bivi-Roig et al (2020)	Cross-sectional	Spain	Adults - Pregnant women	90	NR	33.1 (4.6)	100	Questionnaire - not validated	Questionnaire - not validated	5	'Strict confinement'
Bourdas et al (2020a)	Cross-sectional	Greece	Adults - General	8495	NR	37.2 (0.2)	61.7	Active-Q	None	4	'Movement outside of the house was permitted only for specific reasons, that including moving to or from the workplace, shopping for food or medicine, visiting a doctor or assisting a person in need for

											help, and exercising outside individually or in pairs.'
Bourdas et al (2020b)	longitudinal observational	Greece	Adults - General	1015	NR	40.33 (0.41)	57.44	Active-Q	NR	6	NR
Bowes et al (2020)	Cross-sectional	Global - (UK94%)	Adults - Elite Sport	95	18-34	NR	100	Questionnaire - not validated	None	5	NR
Branley-Bell et al (2020)	Cross-sectional	UK	Over 16 years of age with experience of an eating disorder	129	16-65	29.27 (38.99)	93.8	Questionnaire - not validated	NR	3	NR
Buoite Stella et al (2020)	Cross-sectional	Italy	Adults - General	400	NR	35 (15)	69	IPAQ-SF and Smartphone accelerometer or consumer activity tracker	None	4	'The Italian government enacted a national lockdown restricting the movement of the population except for necessity, work, and health circumstances. Most of the population stayed at home for most of the time. In particular, outdoor physical activity (PA) was prohibited, while gym and sport clubs were closed as per governmental measures'
Callow et al (2020)	Cross-sectional	USA and Canada	Adults - General	1046	50+	NR	80	Questionnaire - not validated	None	5	NR
Cancello et al (2020)	Cross-sectional	Italy	Adults - General	492	18+	NR	84	Questionnaire - not validated	None	5	'The containment measures limited people leave the house only for urgent needs only such as shopping for foods and serious health reasons and most working subjects converted the habitual occupation into "at home" smart working.'
Caruso et al (2020)	Observational	Italy	Adults - Type 1 diabetes	48	NR	42.4 (15.9)	47.9	Questionnaire - not validated	None	4	'People were not allowed to leave their houses except for urgent necessity, and all non-essential businesses were forced to close with employees

											being either put on furlough or home working.'
Castaneda-Babarro Coca et al (2020)	Cross-sectional	Spain	Adults - General	3800	18-65	42.7 (10.4)	46	IPAQ-SF	IPAQ-SF	3	'a lockdown to restrict travel and cancel non-essential services in order to stop the spread of coronavirus disease'
Castellini et al (2020)	Longitudinal observational	Italy	Adults - FEMALE with Anorexia Nervosa (AN) and Bulimia Nervosa (BN)	171	NR	31.74 (12.76)	100	EDE-Q	None	5	'the national and regional governments imposed a progressively increasing level of isolation, with the final general lockdown on March ninth'
Constandt et al (2020a)	Cross-sectional	Belgium	Adults - General	11763	18-74	NR	47.4	Ordinal question: exercising more, exercising the same, exercising less	Questionnaire - not validated	6	'Schools were closed, and working from home became the new standard whenever possible. Furthermore, citizens were allowed and even encouraged by the government to exercise, but with considerable restrictions.'
Constant et al (2020b)	Cross-sectional	France	Adults - General	4005	NR	NR	55.4	Questionnaire - not validated	Questionnaire - not validated	7	'Nationwide confinement, the restriction of individuals to their homes, was one of the measures enforced in many countries, including France on March 17, 2020'
Di Corrado et al (2020)	Cross-sectional	Italy	Adults - General	367	17-73	33.35 (12.8)	49	Questionnaire - not validated	None	4	'Governments' immediate protective restrictions included full lockdowns of cities, travel, restricted social congregations, including sports events, concerts, restaurants, and the closing of schools and universities'
Di Stefano et al (2020)	Cross-sectional	Sicily	Adults - Neuromuscular Disease	149	NR	57.3 (13.7)	38	IPAQ-SF	None	3	'It is well-known that in this period, due to the restrictive measures adopted by the government, all sports facilities were closed and the practice of outdoor PA in public parks and gardens was forbidden'

Dogas et al (2020)	Cross-sectional	Croatia	Adults - General	3027	NR	Median (IQR) 40 (30-50)	79.7	Online survey - not validated	None	6	'Long-term home confinement and quarantine'
Dutta et al (2020)	Observational	India	Children - General	153	8-16	NR	NR	None	Questionnaire - not validated	4	'Restrictions on various social practices and behaviour. People had to spend time mostly confined at their homes. School, college, and offices were initially closed and later were partially or fully resumed in virtual platform with the help of electronic devices and Internet facility.'
Elran-Barak and Mozeikov (2020)	Cross-sectional	Israel	Adults - Chronic Medical Conditions	315	NR	NR	60	None	Questionnaire - not validated	3	'Israelis were not allowed to leave their homes unless absolutely necessary, putting a near-lockdown into effect. Essential services—including grocery stores, pharmacies, and banks—remained open, but people were prohibited from venturing more than 100m from their homes, apart from under certain circumstances (e.g., stocking up on food and medicine). Non-essential stores were required to close, and parks were to remain shut. People were required not to participate in any social gatherings and to limit face-to-face interactions with individuals outside the immediate household'
Endstrasser et al (2020)	Prospective cohort	Austria	Adults - with end stage osteo arthritis	63	26-86	62.4 (11.84)	44	Tegner activity scale	NR	4	NR
Ernstsen et al (2020)	Cross-sectional	Norway	Adults - General	1281	18-81	48.9 (11.4)	31	Questionnaire - not validated	None	5	'organized sports activities were to be discontinued and several businesses were closed, including stadiums, gyms and swimming pools'

Galle et al (2020a)	Cross-sectional	Italy	Adults - students	2125	NR	22.5 (0.08)	62.8	Questionnaire - not validated	NA	4	'limits the movement of individuals in the whole Italian national territory unless strictly motivated (in written form) by reasons of work or health. Shops must stay closed but those selling essentials, such as supermarkets or pharmacies need to ensure a distance of at least 1 m between customers. Schools, museums, cinemas, theatres, and any other social, recreational, or cultural centre must stay closed. Any gathering in public spaces is forbidden, including sporting events and funerals. At the same time, in order to minimize the possible side effects of the lockdown on health, the Italian Ministry of Health issued a series of recommendations targeted at four rules for maintaining a healthy lifestyle: correct diet, daily physical activity (PA), reduce alcohol consumption and no smoking'
Galle et al (2020b)	Cross-sectional	Italy	Adults - General	1430	NR	22.9 (3.5)	65.5	IPAQ	ASBQ	6	'People were allowed to move only for work or health reasons or to buy essentials. Therefore, the great part of the Italian population was forced to live in home-confinement for weeks'
Gallo et al (2020)	Longitudinal observational	Australia	Adults - undergraduate students	149	NR	NR	0	Active Australia survey	NR	6	'All but essential services were shut down and universities transitioned all undergraduate learning online. By 30 March 2020, people were only allowed to leave their homes for work (in an essential service), or to purchase food, receive or



											provide medical care, or exercise.'
Gilic et al (2020)	Prospective cohort	Bosnia and Herzegovina	Adolescents	688	15-18	17	46.8	PAQ-A	None	4	'measures of social distancing had been imposed, including the closing of schools, sports clubs, fitness centres, and shopping malls, and public gatherings were restricted.'
Giustino et al (2020)	Cross-sectional	Italy	Adults - General	802	NR	32.27 (12.81)	51	IPAQ	NR	4	NR
He et al (2020)	NR	China	Adults - General	339	NR	36.4 (11.9)	0	Questionnaire - not validated	None	5	'Chinese New Year celebrations were cancelled, collective activities, bus and railway service was suspended, and factories and restaurants were closed. Curfew and quarantine measures were implemented in many mainland cities. The flow of people was controlled by allowing only 1 person from each household to go out to buy necessities every 2-3 d.'
Husain and Ashkanani (2020)	Cross-sectional	Kuwait	Adults - General	415	18-73	38.47 (12.73)	68.7	Questionnaire - not validated	Questionnaire - not validated	5	Kuwait imposed a partial nationwide curfew on the 22nd of March 2020 until further notice. The government then imposed a total lockdown from the 10th to the 31st of May 2020.
Ingram et al (2020)	Cross-sectional	Scotland	Adults - General	399	18-72	32.4 (11.4)	56.4	Questionnaire - not validated	None	4	'Scotland was under strict lockdown conditions where leaving the house was allowed for necessary work, to shop for essentials, and for unrestricted exercise.'
Karuc et al (2020)	Cross-sectional	Croatia	Adults - General	59	NR	21.6 (0.4)	100	SHAPES	None	5	'the Croatian Government adopted measures to restrict gathering in public places and parks,

											suspend public transportation, and close institutions. Besides all social gatherings, work in retail and services including sports activities were prohibited'
Knell et al (2020)	Cross-sectional	USA	Adults - General	1809	NR	NR	67.4	IPAQ	None	4	'The specific of these initiatives varied by state, but they generally included advisories to stay home, bans on large gatherings, restricted access to parks and community resources, closure of schools and non-essential businesses, and quarantine orders'
Kriaucioniene et al (2020)	Cross-sectional	Lithuania	Adults - General	2447	NR	NR	87.8	Questionnaire - not validated	None	5	'the Lithuanian Government decided to declare quarantine from 16 to 30 March [2]. This was extended several times and ended on 16 June. All public indoor and outdoor gatherings were prohibited. Educational institutions began to work remotely. Shops excluding grocery shops and pharmacies were closed. Restaurants and bars were also closed, leaving the option for food takeaway'
Lopez-Bueno et al (2020a)	Cross-sectional	Spain	Adults - General	2042	NR	35.9(13.6)	54.1	PAVS short form	None	4	'Government-enacted national confinement - During the confinement period, the Spanish population had to stay at home'
Lopez-Bueno et al (2020b)	Cross-sectional	Spain	Adults - General	1591	NR	34.2 (13)	51.8	Questionnaire - not validated	Questionnaire - not validated	5	'Confinement measures to minimize the propagation of the virus'
Majumdar et al (2020)	Cross-sectional	India	Adults - office workers	203	NR	33.1 (7.11)	18.22	None	Questionnaire - not validated	4	

			Adults - undergraduate students	325	NR	22.1 (1.66)	60.92	None	Questionnaire - not validated		'Home confinement as a measure to mitigate disease outbreak'
Mandelkorn et al (2020)	Cross-sectional	Various (49 countries)	Adults - General	2562	NR	45.18 (14.46)	68.18	Questionnaire - not validated	None	4	NR
Maugeri et al (2020)	Cross-sectional	Italy	Adults - General	2524	NR	NR	56.4	IPAQ-SF	None	5	'movement of the population, schools, public places and businesses were shutdowns. Moreover, people can move away from their home only to do essential work (healthcare and social care sectors, police and armed forces, firefighting, water and electricity supply) or perform essential activities (health visits, purchasing medicines or food).'
			Young adults (<21yrs)	346	<21	NR	NR				
			Young adult (21-40)	1178	21-40	NR	NR				
			Adults aged 41-60	704	41-60	NR	NR				
			Adults aged 60+	296	60+	NR	NR				
Meyer et al (2020)	Cross-sectional	USA	Adults - General	3052	18-75+	NR	62	Questionnaire - not validated	Questionnaire - not validated	5	'Social isolation' and 'stay at home isolation'
Mitra et al (2020)	Retrospective cohort	Canada	Children 5-17	1472	5-17	NR	NR	Questionnaire - not validated	Questionnaire - not validated	4	'maintaining physical distance from others by two or more metres (except those living in the same household), prohibiting social gatherings, cancelling team sports and related events, and closing playgrounds and parks (in some jurisdictions) (Govt. of Canada, 2020; The Canadian Urban Institute, 2020). Most public schools and school grounds were closed across the country in response to the pandemic and classroom lessons were replaced by home-schooling and online learning.'
			Children 5-11	693	5-11	NR	NR				
			Youth 12-17	779	12-17	NR	NR				
Mon-Lopez et al (2020a)	Cross-sectional	Spain	Adults - professional handball players	187	NR	NR	35.3	Questionnaire - not validated	NR	6	'Specifically, in handball, the last matches in Spain were played on 7–8 March 2020, and all handball players had to remain in their respective

											houses at least until 4 May 2020 (almost eight weeks).'
Mon-Lopez et al (2020b)	Cross-sectional	Spain	Adults - General	120	NR	36.65 (13.61)	50	IPAQ	Questionnaire - not validated	5	'Home confinement as a measure to mitigate disease outbreak'
Munasinghe et al (2020)	Longitudinal observational	Australia	Adolescents	464	13-19	NR	NR	Questionnaire - not validated	Questionnaire - not validated	5	'One of the key strategies to reduce the rate of infection has been physical distancing and, for school- aged children, a move to the online delivery of schooling. Authorities requested that people remain in their homes wherever possible and limit their travel to obtaining essential goods and services.'
Muriel et al (2020)	Longitudinal observational	Spain	Adults - professional cyclists	18	NR	24.9 (2.8)	0	Objective data collection - specialist software	None	6	NR
Pellegrini et al (2020)	Retrospective observational	Italy	Adults - patients from obesity clinic	150	NR	47.9 (16)	77.3	Questionnaire - not validated		4	'People had to stay at home and were only allowed to go out to buy food or for health reasons; all working activities were suspended or turned into smart working at home, except for essential activities (health workers, food supply and sale, cleaning of cities, and police, etc.).'
Pietrobelli et al. (2020)	Cross-sectional	Italy	Children with obesity	41	Jun-18	13 (3.1)	46.3	Subjective answers from telephone interview	Subjective answers from telephone interview	7	'In Italy who by mandate had to remain in their homes during the "lockdown". Lockdown confinement'
Pillay, L et al (2020)	Cross-sectional	South Africa	Adults - elite athletes	692	NR	NR	33	Questionnaire - not validated	Questionnaire - not validated	6	'In South Africa, level 5 lockdown measures were enforced from 26 March to 30 April (5 weeks). Only essential services, travel and shopping were allowed and exercise outside individual property boundaries was not allowed'

Robinson et al (2020)	Cross-sectional	UK	Adults - General	2002	NR	34.74 (12.3)	61.7	Questionnaire - not validated	Questionnaire - not validated	4	'Formal social lockdown measures to restrict the spread of the virus.'
Rogers et al (2020)	Cross-sectional	UK	Adults - perceived 'at risk' of severe COVID outcomes	9190	35-69	NR	78	NR	NR	6	'Everyone must stay in their homes unless (i) shopping for essentials such as food and medicine, (ii) requiring medical assistance, (iii) caring for vulnerable people, (iv) traveling to and from work if absolutely necessary and (v) to carry out one form of exercise (e.g. walking, running, cycling) each day, either alone or with people who live together. Some adults aged 70 and over and those with specific underlying health conditions including asthma, heart disease, diabetes, and being seriously overweight were also advised to follow stricter social isolation recommendations.'
Romero-Blanco et al (2020)	Cross-sectional	Spain	Adults - undergraduate students	213	NR	20.5 (4.56)	80.8	IPAQ-SF	IPAQ-SF	5	'Being confined to their homes'
Ruiz-Roso et al (2020a)	Cross-sectional	Spain	Adults - T2D	102	45-77	63	51.4	IPAQ	IPAQ	6	NR
Ruiz-Roso et al (2020b)	Cross-sectional	Brazil, Chile, Columbia, Spain, Italy	Adolescents - General	726	16-19	NR	59.6	IPAQ	NR	5	NR
Sanchez-Sanchez et al (2020)	Cross-sectional	Spain	Adults - General	1065	NR	38.7 (12.4)	72.8	Questionnaire - not validated	NR	4	'Restrictive measures and house confinement'
Sankar et al (2020)	Cross-sectional	India	Adults - T2D	110	NR	58.67 (10.8)	61.8	Questionnaire - not validated	NR	3	'confined to remain indoors'
Sanudo et al (2020)	Cross-sectional	Spain	Adults - General	20	20-36	22.6 (3.4)	47	IPAQ and pedometer	IPAQ	6	'Social-distancing and home quarantine'
Savage et al (2020)	Longitudinal prospective	UK	Adults - students	214	NR	NR	72	Exercise Vital Sign (EVS) questionnaire	Questionnaire - not validated	6	'People were required to stay at home, except for essential activities'

											(i.e. to shop for necessities and exercise outside once per day).'
Schlichtiger et al (2020a)	Cross-sectional	Germany	Adults - students	1943	NR	23.3 (4.0)	70.7	Questionnaire - not validated	NR	4	'People were obliged to only leave their accommodations for essential occupational requirements or to ensure household supplies.'
Schlichtiger et al (2020b)	Cross-sectional	Germany	Adults - General	110	NR	66 (10)	71	PAQ 50+	NR	5	NR
Srivastav et al (2020)	Cross-sectional	India	Adults - General	143	NR	23.9	NR	IPAQ - SF	IPAQ - SF	6	NR
Vetrovsky et al (2020)	Longitudinal observational	NR	Adults - heart failure patients	26	NR	58.8 (9.8)	44.44	Accelerometry (Garmin wristwatch)	NR	4	'Prohibited movement in public spaces except under special circumstances, which included travelling to and from work and necessary journeys to procure food and supplies; notably, going outside for a walk in a park or the countryside was allowed.'
Wang et al (2020)	Cross-sectional	China	Adults - General	2289	NR	27.5 (12)	48.6	Questionnaire - not validated	Questionnaire - not validated	5	'community-wide lockdowns, home quarantines, working-from-home, social distancing, and the prohibition of social gatherings'
Yang et al (2020a)	Retrospective	China	Adolescents - high school students	2824	NR	17.5 (1.2)	76	IPAQ	IPAQ	5	NR
			Adults - undergraduate students	7024	NR	20.6 (1.8)	70				
			Adults - Graduate students	234	NR	24.6 (3.5)	70.9				
			Adults - general	10082	NR	19.8 (2.3)	NR				
Yang et al (2020b)	Longitudinal observational	USA	Adults - General	431	NR	39.1 (10.6)	49	IPAQ	IPAQ	5	'Stay-at-home policies; closure of gyms; reduced access to outdoor sport facilities; and home office regulation'
Zenic et al (2020)	Longitudinal prospective	Croatia	Adolescents	823	NR	NR	NR	Physical Activity	NR	5	NR

								Questionnaire for Adolescents			
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NR = Not Reported; IPAQ, International Physical Activity Questionnaire; IPAQ-SF = International Physical Activity Questionnaire Short-Form; EDE-Q = Eating Disorder Examination Questionnaire; PAQ-A = Physical Activity Questionnaire - Adolescents; SHAPES = School Health Action, Planning, and Evaluation Systems questionnaire; PAVS = Physical Activity Vital Sign; PAQ 50+ = Physical Activity Questionnaire for 50+ \*Description of lockdown as reported by respective study authors

**Supplementary Table 4: NOS Scores for all included studies (range: 0-10 stars, with higher scores indicating better quality research)**

Author	Representativeness of sample	Sample Size	Non-respondents	Ascertainment of the exposure	Comparability	Assessment of the outcome	Statistics	Total 'stars'
Ammar <i>et al</i> (2020)	1	1	0	2	0	1	1	6
Asiamah <i>et al</i> (2020)	1	1	0	1	0	1	1	5
Assaloni <i>et al</i> (2020)	1	0	0	2	0	1	1	5
Barwais (2020)	1	0	0	2	0	1	1	5
Bivi-Roig <i>et al</i> (2020)	1	0	0	1	0	1	1	4
Bourdas <i>et al</i> (2020a)	1	0	0	2	1	1	1	6
Bourdas <i>et al</i> (2020b)	1	0	0	2	0	1	1	5
Bowes <i>et al</i> (2020)	1	0	0	0	0	1	1	3
Branley-Bell <i>et al</i> (2020)	1	0	0	1	0	1	1	4
Buoite Stella <i>et al</i> (2020)	1	0	0	2	0	1	1	5
Callow <i>et al</i> (2020)	1	0	0	2	0	1	1	5
Canello <i>et al</i> (2020)	1	0	0	1	0	1	1	4
Caruso <i>et al</i> (2020)	1	0	0	0	0	1	1	3
Castaneda-Babarro Coca <i>et al</i> (2020)	1	0	0	2	0	1	1	5
Castellini <i>et al</i> (2020)	1	0	0	2	1	1	1	6
Constandt <i>et al</i> (2020a)	1	1	0	1	2	1	1	7
Constant <i>et al</i> (2020b)	1	0	0	1	0	1	1	4
Di Corrado <i>et al</i> (2020)	1	0	0	0	0	1	1	3
Di Stefano <i>et al</i> (2020)	1	0	0	2	1	1	1	6
Dogas <i>et al</i> (2020)	1	0	0	1	0	1	1	4
Dutta <i>et al</i> (2020)	1	0	0	0	0	1	1	3
Elran-Barak and Mozeikov (2020)	1	0	0	1	0	1	1	4
Endstrasser <i>et al</i> (2020)	1	1	0	1	0	1	1	5
Ernstsen <i>et al</i> (2020)	1	0	0	1	0	1	1	4
Galle <i>et al</i> (2020a)	1	1	0	2	0	1	1	6
Galle <i>et al</i> (2020b)	1	1	0	2	0	1	1	6
Gallo <i>et al</i> (2020)	1	0	0	1	0	1	1	4
Gilic <i>et al</i> (2020)	0	0	0	2	0	1	1	4



Giustino <i>et al</i> (2020)	1	1	0	1	0	1	1	5
He <i>et al</i> (2020)	1	0	0	1	0	2	1	5
Husain and Ashkanani (2020)	1	1	0	0	0	1	1	4
Ingram <i>et al</i> (2020)	1	1	0	1	0	1	1	5
Karuc <i>et al</i> (2020)	0	0	0	2	0	1	1	4
Knell <i>et al</i> (2020)	1	0	0	2	0	1	1	5
Kriaucioniene <i>et al</i> (2020)	1	0	0	1	0	1	1	4
Lopez-Bueno <i>et al</i> (2020a)	1	0	0	1	1	1	1	5
Lopez-Bueno <i>et al</i> (2020b)	1	0	0	1	0	1	1	4
Majumdar <i>et al</i> (2020)	1	0	0	1	0	1	1	4
Mandelkorn <i>et al</i> (2020)	1	0	1	1	0	1	1	5
Maugeri <i>et al</i> (2020)	1	0	0	2	0	1	1	5
Meyer <i>et al</i> (2020)	1	0	1	0	0	1	1	4
Mitra <i>et al</i> (2020)	1	1	1	1	0	1	1	6
Mon-Lopez <i>et al</i> (2020a)	1	0	0	1	1	1	1	5
Mon-Lopez <i>et al</i> (2020b)	1	0	0	2	0	1	1	5
Munasinghe <i>et al</i> (2020)	1	0	1	2	1	1	1	7
Muriel <i>et al</i> (2020)	1	0	0	2	1	1	1	6
Pellegrini <i>et al</i> (2020)	1	0	0	1	0	1	1	4
Pietrobelli <i>et al</i> (2020)	1	0	0	1	0	1	1	4
Pillay, L <i>et al</i> (2020)	1	1	0	2	0	2	1	7
Robinson <i>et al</i> (2020)	1	1	0	2	0	1	1	6
Rogers <i>et al</i> (2020)	1	0	0	0	1	1	1	4
Romero-Blanco <i>et al</i> (2020)	1	1	0	2	0	1	1	6
Ruiz-Roso <i>et al</i> (2020a)	1	0	0	2	0	1	1	5
Ruiz-Roso <i>et al</i> (2020b)	1	0	1	2	0	1	1	6
Sanchez-Sanchez <i>et al</i> (2020)	1	1	0	0	0	1	1	4
Sankar <i>et al</i> (2020)	1	0	0	0	0	1	1	3
Sanudo <i>et al</i> (2020)	1	0	0	2	0	2	1	6
Savage <i>et al</i> (2020)	1	0	1	2	0	1	1	6
Schlichtiger <i>et al</i> (2020a)	1	0	1	0	0	1	1	4

Schlichtiger <i>et al</i> (2020b)	1	0	0	2	0	1	1	5
Srivastav <i>et al</i> (2020)	1	1	0	2	0	1	1	6
Vetrovsky <i>et al</i> (2020)	1	0	0	0	0	2	1	4
Wang <i>et al</i> (2020)	1	0	0	2	0	1	1	5
Yang <i>et al</i> (2020a)	1	0	0	2	0	1	1	5
Yang <i>et al</i> (2020b)	1	0	0	2	0	1	1	5
Zenic <i>et al</i> (2020)	1	0	0	2	0	1	1	5

Supplementary Table 5. Physical activity pre and during lockdown

Author	PA type and units of measurement	PA Pre-Lockdown Mean (SD)	PA During Lockdown Mean (SD)	Change in PA	P value (if applicable)
Ammar et al (2020)	<i>All PA</i>				
	Days/Week	5.0 (2.5)	3.8 (2.8)	- 24.0%	< 0.001
	Min/Week	108.0 (114.2)	71.8 (88.2)	- 33.5%	< 0.001
	MET values	2192.6 (3300.7)	1360.2 (2545.2)	- 38.0%	< 0.001
	<i>Vigorous PA</i>				
	Days/Week	2.0 (2.1)	1.5 (2.0)	- 22.7%	< 0.001
	Min/Week	38.7 (57.1)	26.0 (47.8)	- 33.1%	< 0.001
	MET values	1168 (2468.7)	737.2 (1844.5)	- 36.9%	< 0.001
	<i>Moderate PA</i>				
	Days/Week	1.8 (2.1)	1.36 (2.0)	- 24.0%	< 0.001
	Min/Week	32.1 (49.0)	21.4 (37.3)	- 33.4%	< 0.001
	MET values	446.4 (920.2)	291.5 (772.7)	- 34.7%	< 0.001
	<i>Walking</i>				
	Days/Week	3.6 (2.6)	2.3 (2.5)	- 35.0%	< 0.001
	Min/Week	37.2 (46.8)	24.6 (34.1)	- 34.0%	< 0.001
MET values	578.3 (917.1)	331.4 (640.2)	- 42.7%	< 0.001	
Asiamah et al (2020)	<i>Moderate PA - % participants</i>	NR		NR	NR
	No time lost/week		20%		
	1-30 min lost/week		7.2%		
	30-59 min lost/week		11.8%		
	1-3hrs lost/week		28.0%		
	4-6hrs lost/week		12.1%		
	>6hrs lost/week		20.9%		
	<i>Vigorous PA - % participants</i>				
	No time lost/week		29.6%		
	1-30 min lost/week		10.5%		
	30-59 min lost/week		23.2%		
	1-3hrs lost/week		25.4%		
	4-6hrs lost/week		5.6%		
	>6hrs lost/week		5.6%		
	Assaloni et al (2020)	<i>Exercise</i>			
Godin Scale score		38.6 (1.7)	25.0 (1.7)	- 13.6	< 0.001
Minutes per day		66 (42)	38 (31)	- 28	< 0.001

	Steps	12606 (5026)	4760 (3145)	- 7846	< 0.001
	% participants				
	Exercise alone	36.4%	82.5%	+ 46.1%	NR
	No exercise	9.1%	17.5%	+ 8.4%	
Barwais (2020)	<i>Physical Activity – MET-min/week</i>				
	All participants	903 (755.6)	387 (397.8)	- 516	< 0.001
	Males	951 (740.5)	398 (413.1)	- 553	< 0.001
	Females	818 (77.5)	368 (369.9)	-450	< 0.01
Bivi-Roig et al (2020) <sup>b</sup>	<i>Vigorous PA</i>				
	Days/week	2 (3)	0 (2)	- 2	0.001
	Min/day	60 (70)	0 (30)	- 60	< 0.001
	<i>Moderate PA</i>				
	Days/week	3 (3)	3 (3.5)	0	0.009
	Min/day	60 (80)	60 (60)	0	< 0.001
	<i>Walking</i>				
	Days/week	7 (2)	3 (6)	- 4	< 0.001
	Min/day	90 (60)	30 (60)	- 60	< 0.001
Bourdass et al (2020a) <sup>c</sup>	<i>PA phase 1 lockdown – MET-min/week</i>				
	(All participants)				
	Daily occupation PA	4736.30 (124.08)	1945.34 (90.32)	- 2791	< 0.05
	Transportation PA	1309.86 (38.00)	714.21 (30.88)	- 595.65	< 0.05
	Leisure time activities PA	6241.27 (197.67)	7335.26 (196.68)	+ 1093.99	< 0.05
	Sporting activities PA	3511.92 (182.79)	2406.97 (184.54)	- 1105	< 0.05
	Overall PA	15,799.35 (345.60)	12,401.78 (304.26)	- 3397.6	< 0.05
	(Males)				
	Daily occupation PA	5389.69 (207.55)	2310.97 (157.29)	- 3078.7	< 0.05
	Transportation PA	1533.87 (63.91)	885.12 (56.04)	- 648.75	< 0.05
	Leisure time activities PA	5844.67 (291.60)	6962.63 (324.27)	+ 1117.96	< 0.05
	Sporting activities PA	4711.57 (347.93)	2759.22 (223.91)	- 1952.4	< 0.05
	Overall PA	17,479.80 (559.02)	12,917.95 (479.92)	- 4561.9	< 0.05
	(Females)				
	Daily occupation PA	4252.13 (148.71)	1674.41 (104.26)	- 2577.7	< 0.05
	Transportation PA	1143.87 (45.03)	587.56 (33.22)	- 556.31	< 0.05

	Leisure time activities PA	6535.15 (267.42)	7611.38 (243.56)	+ 1076.23	< 0.05
	Sporting activities PA	2622.99 (178.12)	2145.96 (274.78)	- 477.03	> 0.05
	Overall PA	14,554.14 (429.60)	12,019.31 (392.19)	- 2534.8	< 0.05
	<i>PA phase 2 lockdown – MET-min/week</i>				
	(All participants)	4215.07 (78.41)	1968.05 (58.68)	- 2247	< 0.05
	Daily occupation PA	1218.20 (23.71)	697.59 (19.92)	- 520.61	< 0.05
	Transportation PA	6097.88 (127.67)	7422.19 (132.92)	+ 1324.31	< 0.05
	Leisure time activities PA	2763.87 (151.89)	2215.42 (134.19)	- 548.45	< 0.05
	Sporting activities PA	14,295.02 (248.35)	12,303.25 (234.23)	- 1991.8	< 0.05
	Overall PA				
	(Males)				
	Daily occupation PA	5177.27 (182.93)	2711.06 (153.70)	- 2466.2	< 0.05
	Transportation PA	1314.24 (50.73)	841.68 (45.25)	- 472.56	< 0.05
	Leisure time activities PA	6062.08 (289.05)	7198.64 (282.94)	+ 1136.56	< 0.05
	Sporting activities PA	3849.72 (529.94)	2809.8 (509.74)	- 1039.9	< 0.05
	Overall PA	16,403.31 (695.56)	13,561.17 (722.59)	- 2842.1	< 0.05
	(Females)				
	Daily occupation PA	3933.68 (84.90)	1750.77 (60.11)	- 2182.9	< 0.05
	Transportation PA	1190.11 (26.79)	655.45 (21.99)	- 534.66	< 0.05
	Leisure time activities PA	6108.35 (141.75)	7487.56 (150.56)	+ 1379.21	< 0.05
	Sporting activities PA	2446.32 (119.58)	2041.59 (88.39)	- 404.73	< 0.05
	Overall PA	13,678.46 (246.46)	11,935.38 (216.14)	- 1743.1	< 0.05
	<i>PA phase 3 lockdown – MET-min/week</i>				
	(All participants)				
	Daily occupation PA	4284.91 (106.59)	2349.61 (92.47)	- 1935.3	< 0.05
	Transportation PA	1254.93 (34.68)	852.65 (31.60)	- 402.28	< 0.05
	Leisure time activities PA	7007.04 (212.80)	8133.13 (205.16)	+ 1126.09	< 0.05
	Sporting activities PA	2328.27 (144.66)	1901.51 (99.98)	- 426.76	< 0.05
	Overall PA	14,875.14 (328.38)	13,236.89 (284.78)	- 1638.3	< 0.05
	(Males)				
	Daily occupation PA	4806.32 (217.88)	2676.81 (181.48)	- 2129.5	< 0.05
	Transportation PA	1477.38 (77.31)	996.89 (70.51)	- 480.49	< 0.05
	Leisure time activities PA	7075.62 (458.93)	7247.03 (411.29)	+ 171.41	> 0.05
	Sporting activities PA	3404.49 (278.21)	2823.46 (248.08)	- 581.03	< 0.05
	Overall PA	16,763.82 (722.40)	13,744.19 (632.52)	- 3019.6	< 0.05

	(Females)				
	Daily occupation PA	4086.56 (120.91)	2225.13 (107.11)	-1861.4	< 0.05
	Transportation PA	1170.31 (37.37)	797.79 (34.23)	- 372.52	< 0.05
	Leisure time activities PA	6980.94 (236.44)	8470.21 (235.12)	+ 1489.27	< 0.05
	Sporting activities PA	1918.87 (167.14)	1550.79 (97.97)	- 368.08	< 0.05
	Overall PA	14,156.68 (357.50)	13,043.91 (310.87)	- 112.8	< 0.05
	<i>PA phase 4 lockdown – MET-min/week</i>				
	(All participants)				
	Daily occupation PA	4328.27 (123.68)	2174.39 (98.25)	- 2153.9	< 0.05
	Transportation PA	1149.50 (36.35)	812.57 (34.21)	- 336.93	< 0.05
	Leisure time activities PA	6767.79 (206.00)	8622.59 (212.36)	+ 1854.8	< 0.05
	Sporting activities PA	1820.42 (141.94)	1749.32 (171.66)	- 71.1	> 0.05
	Overall PA	14,065.98 (335.14)	13,358.87 (326.99)	- 707.11	< 0.05
	(Males)				
	Daily occupation PA	5477.33 (294.99)	2699.65 (227.52)	- 2777.7	< 0.05
	Transportation PA	1370.91 (84.69)	1008.81 (79.34)	- 362.1	< 0.05
	Leisure time activities PA	7248.37 (511.78)	8009.67 (479.28)	+ 761.3	> 0.05
	Sporting activities PA	2437.01 (350.79)	2561.05 (338.68)	+124.04	> 0.05
	Overall PA	16,533.62 (912.29)	14,279.18 (756.51)	- 2254.4	< 0.05
	(Females)				
	Daily occupation PA	3940.03 (128.76)	1996.91 (105.84)	- 1943.1	< 0.05
	Transportation PA	1074.70 (38.94)	746.27 (36.77)	- 328.43	< 0.05
	Leisure time activities PA	6605.41 (214.51)	8829.68 (233.13)	+ 2224.27	< 0.05
	Sporting activities PA	1612.08 (147.68)	1475.05 (198.13)	- 137.03	> 0.05
	Overall PA	13,232.22 (319.70)	13,047.91 (354.58)	- 184.31	> 0.05
Bourdas et al (2020b) <sup>c</sup>	<i>Daily occupational PA – MET-min/week</i>				
	All participants	4502.7 (41.5)	2119.4 (32.1)	- 2383.3	< 0.05
	Males	5232.3 (72.8)	2552.2 (58.8)	- 2680.1	< 0.05
	Females	4049.6 (48.9)	1850.6 (36.7)	- 2199.0	< 0.05
	<i>Transportation PA – MET-min/week</i>				
	All participants	1277.7 (12.7)	751.6 (10.7)	- 526.1	< 0.05
	Males	1442.3 (22.3)	888.3 (19.4)	- 554.0	< 0.05
	Females	1174.4 (15.1)	666.7 (12.5)	- 507.7	< 0.05
	<i>Leisure time PA – MET-min/week</i>				

	All participants	6266.6 (69.3)	7445.7 (70.2)	+ 1179.1	< 0.05
	Males	6186.7 (117.3)	7125.8 (118.0)	+ 939.1	< 0.05
	Females	6316.2 (85.5)	7644.3 (87.0)	+1328.1	< 0.05
	<i>Sporting PA – MET-min/week</i>				
	All participants	3114.3 (75.5)	2369.0 (68.8)	- 745.3	< 0.05
	Males	4227.1 (166.4)	2874.4 (149.2)	- 1352.7	< 0.05
	Females	2423.0 (63.8)	2055.1 (61.7)	- 367.9	< 0.05
	<i>Total PA – MET-min/week</i>				
	All participants	15160.6 (128.6)	12685.7 (120.0)	- 2474.9	< 0.05
	Males	17088.2 (244.6)	13440.6 (237.4)	- 3647.6	< 0.05
	Females	13963.2 (140.2)	12216.7 (126.6)	- 1746.5	< 0.05
	(Age class)				
	18-29 years old	14406 (212.3)	12230.7 (226.3)	- 2175.3	< 0.05
	30-49 years old	15668.9 (209.7)	12894.9 (168.0)	- 2774.0	< 0.05
	50-59 years old	15833.7 (284.0)	13449.1 (248.4)	- 2384.6	< 0.05
	60-69 years old	14402.3 (547.4)	11682.2 (596.0)	- 2720.1	< 0.05
	70 + years old	12364.3 (1535.2)	8472.6 (949.4)	- 3891.7	< 0.05
	(BMI class)				
	Underweight (BMI <18.5)	16626.9 (946.2)	14106.3 (1053.3)	- 2520.6	< 0.05
	Acceptable weight (BMI = 18.5-24.9)	15288.2 (174.0)	12720.7 (165.5)	- 2567.5	< 0.05
	Overweight (BMI = 25.0-29.9)	15022.1 (208.9)	12552.6 (196.4)	- 2469.5	< 0.05
	Obese (BMI ≥ 30.0)	14389.2 (412.7)	12381.8 (284.9)	- 2607.4	< 0.05
	(Baseline PA level)				
	Inactive (0 MET-min/week)	10792.0 (170.7)	10477.3 (175.6)	- 314.7	> 0.05
	Low PA (0-499 MET-min/week)	10204.5 (179.0)	10446.0 (224.8)	+ 241.5	> 0.05
	Moderate PA (500-1000 MET-min/week)	10993.4 (184.2)	10691.1 (203.8)	- 302.3	> 0.05
	High PA (>1000 MET-min/week)	18876.3 (202.9)	14472.9 (193.3)	- 4403.4	< 0.05
Bowes et al (2020)	<i>Quantity of training - % participants</i>	NR		NR	NR
	Increased volume		5.7%		
	Decreased volume		75.7%		
	Same volume		17.1%		
	Other		1.4%		
Branley-Bell et al (2020)	<i>Change in PA - % participants</i>	NR		NR	NR
	Much less PA		27.9%		
	Moderately less PA		11.6%		
	Slightly less PA		10.1%		

	No change Slightly more PA Moderately more PA Much more PA		10.1% 12.4% 10.1% 14.0%		
Buoite Stella et al (2020)	<i>Daily step count</i> All participants People working as usual People at home People involved in structured PA People not involved in structured PA  <i>IPAQ-SF (MET)</i> All participants People working as usual People at home People involved in structured PA People not involved in structured PA	8284 (4390) 11045 (5710) 7700 (3832) 8520 (4565) 7961 (4147)  3101 (3815) 2763 (2906) 3170 (3975) 3478 (3661) 2674 (3949)	3294 (3994) 5043 (3289) 2924 (4040) 3139 (3237) 3505 (4854)  1839 (2254) 1732 (2099) 1861 (2287) 1767 (2041) 1920 (2477)	- 4990 - 6002 - 4776 - 5381 - 4456  - 1262 - 1031 - 1309 - 1711 -754	< 0.001 < 0.001 < 0.001 < 0.001 < 0.001  < 0.001 0.001 < 0.001 < 0.001 0.004
Callow et al (2020)	<i>PA - % participants</i> Much lower Somewhat lower About the same Somewhat greater Much greater	NR	14.2% 23.4% 35.7% 15.3% 9.0%	NR	NR
Cancello et al (2020)	<i>PA - % participants</i> Unchanged More than usual No activity Less than usual  (Active before lockdown) Increased Decreased Unchanged Sedentary  (Inactive before lockdown) Increased Decreased Unchanged	NR	15.0% 22.0% 28.0% 35.0%  18.0% 50.0% 14.0% 18.0%  27.0% 0% 73.0%	NR	NR



	Sedentary		0%		
Caruso et al (2020)	PA - % participants Increased Unchanged Decreased	NR	18.7% 16.6% 64.6%	NR	NR

Castaneda-Babarro Coca et al (2020)	<i>Vigorous PA – time (min/day)</i>				
	All participants	219 (196)	182 (184)	- 37	< 0.001
	Women	175 (176)	159 (174)	- 16	< 0.001
	Men	256 (204)	202 (190)	- 54	< 0.001
	Workers	212.1 (189.9)	177.3 (179.4)	- 34.8	< 0.001
	Students	295.5 (221.0)	223.7 (199.1)	- 71.8	< 0.001
	Study-work	223.6 (196.8)	193.2 (195.2)	- 30.4	< 0.001
	Nothing	213.9 (228.4)	179.6 (201.1)	- 34.3	0.013
	(age categories)				
	18-24 years old	300 (206.6)	246 (189.1)	- 54	< 0.001
	25-34 years old	244 (197.9)	201 (193.6)	- 43	< 0.001
	35-44 years old	209 (189.9)	175 (174.5)	- 34	< 0.001
	45-54 years old	202 (184.4)	171 (183.3)	- 31	< 0.001
	55-65 years old	199 (126)	155 (186.1)	- 44	< 0.001
	(Moderate PA categories)				
	0-150 min/week	187 (176.6)	160 (168.3)	- 27	< 0.001
	150-300 min/week	234 (178.8)	196 (182.3)	- 38	< 0.001
	300-450 min/week	299 (220)	243 (210.8)	- 56	< 0.001
	>450 min/week	409 (267.1)	292 (243.5)	- 117	< 0.001
	(Vigorous PA categories)				
	0-75 min/week	16 (23.7)	71 (124.7)	+ 55	< 0.001
	75-150 min/week	115 (21.6)	125 (116.2)	+ 10	< 0.05
	150-225 min/week	188 (16.4)	172 (134.2)	- 16	< 0.01
	>225 min/week	400 (170.7)	278 (203)	- 122	< 0.001
	<i>Moderate PA – time (min/day)</i>				
	All participants	149 (174)	145 (170)	- 4	0.102
	Women	133 (160)	144 (159)	+ 11	< 0.05
	Men	163 (185)	145 (179)	- 18	< 0.001
	Workers	143 (169.2)	142.2 (170.6)	- 0.8	0.811
	Students	171.1 (191.8)	143.5 (157.1)	- 27.6	< 0.05
	Study-work	157.4 (177.1)	144 (160.6)	- 13.4	0.141
	Nothing	198 (208.8)	184.6 (190.4)	- 13.4	0.316
(age categories)					
18-24 years old	180 (197.3)	149 (154.6)	- 31	< 0.05	
25-34 years old	139 (150.3)	145 (159.4)	+ 6	0.345	
35-44 years old	141 (176.6)	140 (173.5)	- 1	0.830	

	45-54 years old	150 (172.7)	142 (170.7)	- 8	0.121
	55-65 years old	169 (191.7)	162 (184.3)	- 7	0.405
	(Moderate PA categories)				
	0-150 min/week	49 (50.5)	91 (199.6)	+ 42	< 0.001
	150-300 min/week	225 (45.2)	197 (156.4)	- 28	< 0.001
	300-450 min/week	286 (39)	278 (204.7)	- 8	0.709
	>450 min/week	643 (146.2)	370 (266.1)	- 273	0.010
	(Vigorous PA categories)				
	0-75 min/week	101 (138.1)	127 (153.9)	+ 26	< 0.001
	75-150 min/week	119 (120.9)	121 (132.8)	+ 2	0.596
	150-225 min/week	136 (146)	128 (156.6)	- 8	0.231
	>225 min/week	196 (208)	171 (193.7)	- 25	< 0.001
	<i>Walking – time (min/day)</i>				
	All participants	282 (253)	116 (189.3)	- 166	< 0.001
	Women	302 (260)	122 (199.3)	- 180	< 0.001
	Men	265 (247)	110 (180.1)	- 155	< 0.001
	Workers	269.3 (246.2)	113.7 (182.7)	- 155.6	< 0.001
	Students	298.8 (246.1)	98.8 (189.7)	- 200	< 0.001
	Study-work	301.3 (249.5)	106.1 (179.6)	- 195.2	< 0.001
	Nothing	403.3 (326.3)	186.6 (267.2)	- 216.6	< 0.001
	(age categories)				
	18-24 years old	321 (281.8)	94 (182.6)	- 227	< 0.001
	25-34 years old	280 (244.2)	97 (161.1)	- 183	< 0.001
	35-44 years old	253 (235.8)	108 (186.8)	- 145	< 0.001
	45-54 years old	285 (256.1)	125 (197.8)	- 160	< 0.001
	55-65 years old	354 (284.1)	160 (213.2)	- 194	< 0.001
	(Moderate PA categories)				
	0-150 min/week	254 (239.6)	102 (180)	- 152	< 0.001
	150-300 min/week	309 (252.3)	121 (181.9)	- 188	< 0.001
	300-450 min/week	340 (272.8)	167 (234.5)	- 173	< 0.001
	>450 min/week	407 (308)	179 (227)	- 228	< 0.001
	(Vigorous PA categories)				
	0-75 min/week	291 (269.1)	127 (211.8)	- 164	< 0.001
	75-150 min/week	248 (219.5)	93 (155.7)	- 155	< 0.001
	150-225 min/week	256 (226.2)	93 (153.8)	- 163	< 0.001

	>225 min/week	299 (264.1)	126 (197.5)	- 173	< 0.001
Castellini et al (2020)	<i>Compensatory physical exercise score</i> Females with eating disorders Females without eating disorders	0.69 (1.84) 0.58 (3.33)	3.55 (7.72) 0.84 (3.47)	+ 2.86 + 0.26	< 0.05 > 0.05
Constandt et al (2020a)	<i>Exercise - % participants</i> Decreased Unchanged Increased  <i>Walking - % participants</i> Decreased Unchanged Increased	NR	45.4% 43.3% 11.3%  60% 32.2% 7.8%	NR	NR
Constant et al (2020b)	<i>Exercise - % of population (active group)</i> More As much Less  <i>Exercise - % population (inactive group)</i> More As much Less No exercise	NR	36% 23% 46%  58% 5% 7% 40%	NR	NR
Di Corrado et al (2020)	<i>Active before lockdown - % participants</i> Active at home during lockdown Not active at home during lockdown  <i>Not active before lockdown - % participants</i> Active at home during lockdown Not active at home during lockdown	100% 100%  0% 0%	85.29% 14.71%  49.36% 50.64%	- 14.71% - 85.29%  + 49.36% + 50.64%	NR
Di Stefano et al (2020)	<i>Vigorous PA - MET-min/week</i> Neuromuscular disease participants Carers or partners  <i>Moderate PA - MET-min/week</i> Neuromuscular disease participants Carers or partners	70.1 (361.9) 2081.8 (4945.3)  263.2 (606.9) 1153.3 (2424.6)	37.1 (303.9) 861.9 (1662.9)  146.9 (450.6) 925.4 (3675.6)	- 227.9 - 696.6  - 33 - 116.3	NR

	<i>Walking – MET-min/week</i> Neuromuscular disease participants Carers or partners	547.7 (733.2) 1271.5 (2703.6)	211.9 (534) 2703.6 (574.9)	- 2144.2 - 1448.4	
	<i>Total PA – MET-min/week</i> Neuromuscular disease participants Carers or partners	901.3 (1299.6) 4506.5 (7600.1)	400.6 (1088.5) 2362.3 (4498.9)	- 149.3 - 1219.9	
	<i>MVPA – MET-min/week</i> Neuromuscular disease participants Carers or partners	333.3 (483.8) 3235.7 (3684.7)	184 (440.3) 1787.3 (2669.3)	- 335.8 - 500.7	
Dogas et al (2020)	<i>Exercise frequency – per week</i> All participants Males Females	2.8 (1.1) 2.8 (1.1) 2.8 (1.0)	2.6 (1.2) 2.7 (1.2) 2.7 (1.2)	- 0.2 - 0.1 - 0.1	< 0.001 0.453 0.001
	<i>Exercise duration – minutes</i> All participants Males Females	57.9 (34.5) 61.2 (40.1) 55.6 (29.8)	51.1 (37.7) 59.2 (55.9) 49.2 (32.5)	- 6.8 - 2 - 6.4	< 0.001 > 0.999 < 0.001
Elran-Barak and Mozeikov (2020)	<i>PA – times/week</i>	3.5 (2.4)	2.8 (2.4)	- 0.7	< 0.001
Endstrasser et al (2020)	<i>Tegner Activity Score</i>	3	2	- 1	p = 0.046
Ernstsen et al (2020)	<i>Change in PA - % participants</i>  <i>(All participants)</i> Reduced Unchanged Increased  <i>(Participants with anxiety disorder)</i> Reduced Unchanged Increased  <i>(Participants without anxiety disorder)</i> Reduced Unchanged Increased	NR	  13.8% 64.3% 21.9%  25.2% 57.4% 17.4%  12.7% 65.0% 22.3%	NR	NR

	(Participants with depressive disorder) Reduced Unchanged Increased  (Participants without depressive disorder) Reduced Unchanged Increased		33.3% 62.7% 13.7%  13.0% 64.4% 22.2%		
Galle et al (2020a)	Physical activity - % population Decreased Increased Active as before Inactive as before	NR	48.6% 21.3% 16.0% 14.1%	NR	NR
Galle et al (2020b)	PA – min/day Total PA <sup>b</sup> Vigorous PA Moderate PA Walking	520 (820) 138.6 199.3 480.0	270 (340) 108.3 148.1 144.5	- 250 - 30.3 - 51.2 - 365.5	NR < 0.05 < 0.05 < 0.05
Gallo et al (2020)	Walking – min/day All participants (compared with 2019) All participants (compared with 2018) Females (compared with 2019) Females (compared with 2018)  Vigorous PA – min/day Males (compared with 2019) Males (compared with 2018)	NR	NR	- 52.5 - 87.5 - 30 - 30  - 60.0 - 150	< 0.05 < 0.001 < 0.05 0.068  < 0.05 < 0.001
Gilic et al (2020)	PA – PAQ-A score All participants Boys Girls	2.98 (0.71) 3.12 (0.56) 2.69 (0.49)	2.31 (0.68) 2.50 (0.44) 1.95 (0.56)	- 0.67 - 0.62 - 0.74	< 0.001 < 0.001 < 0.001
Giustino et al (2020)	Physical Activity MET-min/week  Number participants	3458.0	1994.3	- 1463.5	p < 0.001

	Low Active Moderately Active High Active	49 352 401	200 409 193	+ 19% + 7% - 26%	NR
He et al (2020)	Steps – per day Males Females	8321 (3000) 7038 (1923)	3728 (1726) 3741 (1042)	- 4593 - 3297	< 0.001 < 0.001
Husain and Ashkanani (2020)	PA hours per week - % participants < 1h or none 1-2h per week 3-4h per week >4h per week	48.9% 20.2% 14.7% 16.1%	61.9% 18.1% 11.8% 8.2%	+ 13% - 2.1% - 2.9% - 7.9%	NR
Ingram et al (2020)	Change in PA - % participants A lot less A little less Same A little more A lot more	NR	NR	24.8% 22.6% 16.8% 23.6% 12.3%	NR
Karuc et al (2020)	MVPA – min/day <sup>b</sup> Females Males  Change in PA - % participants (Females) No change Increase Decrease  (Males) No change Increase Decrease	120 (227.1) 135 (127.5)  NR  NR	64.3 (75) 85.7 (56.8)  NR  NR	- 55.7 - 49.3  25% 19% 56%  31% 19% 50%	NR
Knell et al (2020)	Change in PA - % participants Increase Decrease Stay the same	NR	25.2% 39.0% 35.8%	NR	NR
Kriaucioniene et al (2020)	Change in PA - % participants Increase Decrease	NR	14.3% 60.6%	NR	NR

	Stay the same		19.3%		
Lopez-Bueno et al (2020a)	<i>PA – min/week</i> All participants Males Females Age < 43 years old Age > 43 years old Married Not married Without University degree With University degree Employed Unemployed	221.9 (193.6) 268.8 (207.1) 182.0 (171.7) 238.4 (201.4) 182.4 (167.3) 210.1 (187.6) 233.2 (198.8) 217.2 (180.7) 221.9 (180.7) 205.0 (180.0) 251.0 (212.0)	176.7 (178.9) 196.0 (185.0) 160.4 (171.2) 196.4 (181.9) 129.6 (162.4) 161.4 (170.6) 191.4 (185.5) 181.3 (174.4) 168.8 (186.4) 165.6 (168.7) 195.6 (193.7)	- 45.2 - 72.8 - 21.6 - 42.0 - 52.8 - 48.7 - 41.8 - 35.9 - 53.1 - 39.4 - 55.4	< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001
Lopez-Bueno et al (2020b)	<i>PA &lt; 150min/week - % participants</i> 1 week of lockdown 2 weeks of lockdown 3 weeks of lockdown	35.1% 35.1% 35.1%	52.2% 40.3% 26.2%	+ 17.1% + 5.2% - 8.9%	< 0.001*
Mandelkorn et al (2020)	<i>Change in PA - % population</i>  (All Countries) No Change More Less  (USA only) No change More Less	NR	20.41% 17.84% 61.75%  29.76% 22.55% 47.68%	NR	NR
Maugeri et al (2020)	<i>PA – MET-min/week</i> Total PA Vigorous PA Moderate PA Walking  <i>Total PA – MET-min/week</i> Males Female Young (< 21 years old)	2429 1109 574 746  2998 1994 2726	- 852 - 342.4 - 50.7 - 458.4  - 1244 - 551 - 874	NR	< 0.001 < 0.001 0.0188 < 0.001  < 0.001 < 0.001 < 0.001



	Young adults (21-40 years old)	2535	- 871		< 0.001
	Adults (41-60 years old)	2150	- 811		< 0.001
	Adults (≥ 60 years old)	2316	- 843		< 0.001
Meyer et al (2020)	<i>Weekly physical activity - % population</i> <i>Previously active</i> <i>Previously inactive</i>	NR	-32.3% +2.3%	NR	NR
Mitra et al (2020)	<i>Walk or bike - % participants</i> (All participants) Decrease Same Increase  (Children aged 5-11) Decrease Same Increase  (Youth aged 12-17) Decrease Same Increase  <i>PA or sport inside - % participants</i> (All participants) Decrease Same Increase  (Children aged 5-11) Decrease Same Increase  (Youth aged 12-17) Decrease Same Increase  <i>PA or sport outside - % participants</i> (All participants) Decrease	NR	53.2% 26.3% 20.5%  47.3% 25.0% 27.7%  58.4% 27.6% 14.0%  34.0% 40.5% 25.5%  27.1% 41.7% 31.2%  40.1% 39.4% 20.5%  63.8%	NR	NR

	Same		22.2%		
	Increase		14.0%		
	(Children aged 5-11)				
	Decrease		29.0%		
	Same		22.7%		
	Increase		18.3%		
	(Youth aged 12-17)				
	Decrease		68.0%		
	Same		21.8%		
	Increase		10.1%		
	<i>Playing outside - % participants</i>				
	(All participants)				
	Decrease		51.2%		
	Same		30.9%		
	Increase		17.9%		
	(Children aged 5-11)				
	Decrease		47.5%		
	Same		26.3%		
	Increase		26.3%		
	(Youth aged 12-17)				
	Decrease		54.6%		
	Same		35.0%		
	Increase		10.4%		
	<i>Household chores - % participants</i>				
	(All participants)				
	Decrease		8.2%		
	Same		53.9%		
	Increase		37.9%		
	(Children aged 5-11)				
	Decrease		7.2%		
	Same		53.2%		
	Increase		39.5%		
	(Youth aged 12-17)				
	Decrease		9.1%		

	Same Increase		54.4% 36.5%		
Mon-Lopez et al (2020a)	<i>Training days per week – frequency</i> All participants Males Females  <i>Training – hours/week</i> All participants Males Females	4.84 (1.15) 4.69 (1.2) 5.12 (1.0)  9.99 (3.8) 9.34 (3.63) 11.18 (3.83)	4.23 (1.69) 3.98 (1.69) 4.68 (1.61)  5.27 (3.26) 4.89 (3.15) 5.97 (3.36)	- 0.61 - 0.71 - 0.44  - 4.72 - 4.45 - 5.21	< 0.001 < 0.001 < 0.001  < 0.001 < 0.001 < 0.003
Mon-Lopez et al (2020b)	<i>PA – METs</i> High intensity PA Moderate intensity PA Low intensity PA Total PA	1660 (2714.55) 683.67 (130.95) 1427.53 (1852.27) 3771.19 (400.53)	884.67 (1200.3) 464.33 (602.03) 1852.27 (274.73) 1623.73 (1658.85)	- 775.33 - 219.34 - 1152.8 - 2147.46	0.001 0.042 < 0.001 < 0.001
Munasinghe et al (2020)	<i>PA - (Yes-no)</i> Yes	51.4%	43.6%	-7.8%	NR
Muriel et al (2020)	<i>PA – hours/week</i> Total training Z1. Recovery Z2. Endurance Z3. Tempo Z4. Threshold Z5. VO2 max Z6. Anaerobic	17.7 (3.6) 5.0 (1.9) 3.1 (1.0) 3.1 (1.0) 2.5 (0.7) 1.7 (0.6) 2.3 (1.1)	11.7 (3.9) 2.4 (1.7) 3.5 (1.9) 2.3 (1.1) 1.4 (0.7) 1.0 (0.5) 1.1 (0.8)	- 6.0 - 2.6 + 0.4 - 0.8 - 1.1 - 0.7 - 1.2	< 0.001 < 0.001 0.378 < 0.001 < 0.001 < 0.001 < 0.001
Pellegrini et al (2020)	<i>Exercise - % participants</i> I never practice exercise Exercise is less than before quarantine Exercise is the same as before quarantine Exercise is more than before quarantine	NR	32.6% 46.7% 10.0% 10.7%	NR	NR
Pietrobelli et al. (2020)	<i>Sports time</i> <i>Hours/week</i>	3.6 (4.3)	1.3 (1.4)	- 2.30	0.003
Pillay, L et al (2020)	<i>Training load and intensity decreased - % sample</i> Yes No	NR	75% 25%	NR	NR

Robinson et al (2020)	<p><i>Exercise - % participants</i></p> <p>A lot less Less A little less Same A little more More A lot more</p> <p><i>PA (e.g. gardening) - % participants</i></p> <p>A lot less Less A little less Same A little more More A lot more</p>	NR	<p>11.0% 14.0% 15.0% 15.0% 20.0% 15.0% 10.0%</p> <p>10.0% 12.0% 12.0% 21.0% 24.0% 16.0% 6.0%</p>	NR	NR
Rogers et al (2020)	<p>PA Change during lockdown - % participants</p> <p>Same Less More</p>	NR	<p>63.9% 25.05% 11.06%</p>	NR	<0.001
Romero-Blanco et al (2020)	<p><i>PA – days/week</i></p> <p>Vigorous PA Moderate</p> <p><i>PA – min/week</i></p> <p>Vigorous PA Moderate PA Total PA</p>	<p>0.98 (1.33) 1.74 (1.56)</p> <p>28.47 (54.16) 42.81 (48.44) 223.3 (305.47)</p>	<p>1.33 (2.19) 3.15 (2.05)</p> <p>30.66 (30.94) 47.74 (50.8) 383.17 (438.9)</p>	<p>+ 1.12 + 1.41</p> <p>+ 2.19 + 4.93 + 159.87</p>	<p>&lt; 0.001 &lt; 0.001</p> <p>0.45 0.19 &lt; 0.001</p>
Ruiz-Ruso et al (2020a)	<p><i>Change in weekly PA</i></p>	NR	<p>In text - 'During the COVID-19 lockdown, we noticed a significant increase in the daily hours that the participants of the study were sitting without doing any physical activity at all (Figure 5). Regarding the average minutes per week spent</p>	NR	<p>Mean walking time p=&lt;0.0001</p> <p>Mean time spent in moderate activity p=&lt;0.05</p>

			walking, we observed a significant decrease during lockdown compared to the period before.'		
Ruiz-Ruso et al (2020b)	<i>Change in PA levels - % participants</i> Active	27.0%	20.5%	-6.5%	NR
Sanchez-Sanchez et al (2020)	<i>Change in weekly PA - % participants</i> 1-3 times/week 4-5 times/week ≥ 6 times/week No PA	35.4% 27.9% 7.9% 28.8%	32.3% 23.7% 14.5% 29.4%	- 3.1 - 4.2 + 6.6 + 0.6	NR
Sankar et al (2020)	<i>Change in PA - % participants</i> Increased Decreased Same	NR	2.7% 14.5% 82.7%	NR	NR
Sanudo et al (2020)	<i>PA – min/week</i> Walking Moderate PA Vigorous PA MVPA  <i>Steps – per day</i>	362 (262) 411 (487) 256 (381) 797 (822)  8525 (3597)	27 (47) 178 (155) 168 (228) 346 (341)  2754 (1724)	- 335 - 263 - 88 - 451  - 5771	< 0.01 0.028 0.006 0.006  < 0.001
Savage et al (2020)	<i>Moderate and vigorous PA</i>	NR	In text - PA decreased significantly over time (p<.010, however the effect size was trivial (d=0.12).	NR	< 0.01
Schlichtiger et al (2020a)	<i>Change in PA - % participants</i> Reduced PA Constant PA Increased PA	NR	44.1% 22.6% 19.8%	NR	NR
Schlichtiger et al (2020b)	<i>PA – MET hours/week</i> Total PA Household PA Yard work Leisure activities Sports Work/volunteering	168.8 (91.0) 52.2 (33.6) 14.5 (20.4) 20.0 (16.4) 40.6 (54.7) 41.6 (53.0)	144.1 (84.8) 50.5 (31.8) 16.4 (22.3) 16.4 (15.9) 27.6 (35.7) 33.1 (52.1)	- 24.7 - 1.7 + 1.9 - 3.6 - 13 - 8.5	< 0.01 0.102 0.038 0.014 0.001 < 0.001

Srivastav et al (2020)	<i>PA – MET-min/week</i>				
	Vigorous PA	2727.3	1165.2	- 1562.1	< 0.001
	Moderate PA	1994.3	728.2	- 1266.1	< 0.001
	Walking	3088.3	2242.3	- 845.9	< 0.001
	Total PA	8142.7	5390.9	- 2751.8	< 0.001
	Total PA without sitting	7809.7	4135.7	- 3674.0	< 0.001
Vetrovsky et al (2020)	<i>Changes in steps - % participants</i>	NR	NR	- 16.2%	< 0.001
Wang et al (2020)	<i>Exercise - % participants</i>	NR		NR	NR
	Reduced		52%		
	Increased		17%		
	<i>Daily PA - % participants</i>				
	Reduced		44%		
	Increased		19%		
Yang et al (2020a) <sup>b</sup>	<i>Active transport – hours/day</i>				
	High School Students (< 18 years old)	1.5	1.0	- 0.5	< 0.05
	Undergraduate Students	1.3	1.0	- 0.3	< 0.001
	Graduate students	1.0	0.5	- 0.5	< 0.05
	All participants	1.3	1.0	- 0.3	< 0.05
	<i>Housework activity – hours/day</i>				
	High School Students (< 18 years old)	2.0	2.3	+ 0.3	< 0.001
	Undergraduate Students	1.5	2.0	+ 0.5	< 0.001
	Graduate students	1.0	1.1	+ 0.1	> 0.05
	All participants	2.0	2.0	0	< 0.05
	<i>MVPA – hours/day</i>				
	High School Students (< 18 years old)	1.5	1.5	0	< 0.05
	Undergraduate Students	1.1	1.0	-0.1	< 0.05
	Graduate students	1.0	1.0	0	> 0.05
	All participants	1.3	1.2	-0.1	< 0.001
	<i>Walking for leisure – hours/day</i>				
	High School Students (< 18 years old)	1.0	1.0	0	< 0.01
	Undergraduate Students	1.0	0.8	- 0.2	< 0.001
Graduate students	1.0	1.0	0	> 0.05	
All participants	1.0	1.0	0	< 0.001	
Yang et al (2020b)	<i>PA – MET-min/week</i>				

	Total PA	3323 (2451)	2718 (2205)	- 605	< 0.001
	<i>PA – min/day</i>				
	Moderate PA	57.15 (42.67)	46.77 (41.37)	- 10.38	< 0.01
	Vigorous PA	47.94 (41.91)	39.47 (40.0)	- 8.47	< 0.001
	Active PA	157.8 (92.73)	134.45 (90.89)	- 23.35	0.003
	Walking	52.71 (47.7)	48.21 (44.41)	- 4.5	0.067
Zenic et al (2020)	<i>Change in PA – PAQ-A Score</i>				
	All participants	2.97 (0.61)	2.63 (0.68)	- 0.34	< 0.01

NR, Not reported; MVPA, moderate-to-vigorous physical activity; METs, Metabolic Equivalent Tasks

<sup>a</sup> Numeric data provided by authors via email, from figure 2 in original manuscript.

<sup>b</sup> Data reported as median (interquartile range)

<sup>c</sup> Data reported as mean (standard error)

\* between groups

Supplementary Table 6. Sedentary behaviour pre- and during lockdown

Author	SB type and units of measurement	SB Pre-lockdown Mean (SD)	SB During lockdown Mean (SD)	Change	P value (if applicable)
Ammar et al. (2020)	<i>Sitting time</i> Hours/Day	5.3 (3.65)	8.41 (5.11)	+ 28.6%	p < 0.001
Asiamah et al (2020)	<i>Sedentary behaviour - % participants</i> No time added/week 1-30 min added/week 30-59 min added/week 1-3hrs added/week 4-6hrs added/week >6hrs added/week	NR	18.4% 5.6% 7.9% 24.6% 24.2% 19.3%	NR	NR
Bivi-Roig et al (2020) <sup>b</sup>	<i>Sitting time</i> Hours/Day	4 (4)	8 (5)	+ 4	p < 0.001
Castaneda-Babarro Coca et al (2020)	<i>Sitting time (hours/day)</i> All participants Women Men Workers Students Study-work Nothing  (age categories) 18-24 years old 25-34 years old 35-44 years old 45-54 years old 55-65 years old  (Moderate PA categories) 0-150 min/week	6.1 (3.6) 6.3 (3.9) 6.0 (3.1) 6.2 (3.5) 6.4 (2.4) 6.3 (4.1) 4.4 (2.4)  6.6 (4.2) 6.4 (3.1) 6.0 (3.9) 6.1 (3.1) 5.7 (3.0)  6.4 (3.6) 5.7 (3) 5.7 (4.4)	8 (5.1) 7.9 (3.9) 8.1 (5.9) 8.0 (5.4) 8.8 (3.2) 8.3 (3.4) 6.5 (3.5)  9 (3.5) 8.6 (3.6) 7.7 (3.9) 7.9 (7.2) 7.5 (3.5)  8.2 (4.3) 8.1 (7.3) 7.6 (3.3)	+ 1.9 + 1.6 + 2.1 +1.8 +2.4 +2.0 +2.1  + 2.4 + 2.2 + 1.7 + 1.8 + 1.8  + 1.8 + 2.4 + 1.9	< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001  < 0.001 < 0.001 < 0.001 < 0.001 < 0.001  < 0.001 < 0.001 < 0.001



	150-300 min/week 300-450 min/week >450 min/week  (Vigorous PA categories) 0-75 min/week 75-150 min/week 150-225 min/week >225 min/week	4.8 (2.9)  6.4 (3.2) 6.5 (4.3) 6.2 (3.1) 5.7 (3.3)	6.5 (3.3)  7.9 (3.5) 8.0 (3.5) 8.2 (4.1) 8.0 (6.5)	+ 1.7  + 1.5 + 1.5 + 2.0 +2.3	< 0.001  < 0.001 < 0.001 < 0.001 < 0.001
Constandt et al (2020a)	Screen watching - % participants Decreased Unchanged Increased	NR	NR	3.6% 37% 59.0%	NR
Constandt et al. (2020b)	Sitting time - % of participants (active group) Increased Stayed the same Decreased  Sitting time - % of participants (inactive group) Increased Stayed the same Decreased	NR	NR	46% 39% 15%  40% 36% 24%	NR
Dutta et al (2020)	Phone screen time weekday - % participants < 1 hour per day 1-2 hours per day 2-4 hours per day 4-8 hours per day Not applicable  Phone screen time weekend day - % participants < 1 hour per day 1-2 hours per day 2-4 hours per day 4-8 hours per day Not applicable  Laptop screen time weekday - % participants < 1 hour per day	28.6% 25.7% 11.4% 5.7% 28.6%  31.4% 20.0% 17.1% 2.9% 28.6%	28.6% 22.9% 11.4% 14.3% 22.9%  28.6% 22.9% 11.4% 14.3% 22.9%	0 - 2.8 0 + 8.6 - 5.7  - 2.8 + 2.9 - 5.7 + 11.4 - 5.7	NR

	1-2 hours per day	8.6%	17.1%	+ 8.5	
	2-4 hours per day	5.7%	8.6%	+ 2.9	
	4-8 hours per day	5.8%	8.6%	+ 2.8	
	Not applicable	54.3%	48.6%		
	<i>Laptop screen time weekend day - % participants</i>				
	< 1 hour per day	17.1%	17.1%	0	
	1-2 hours per day	14.3%	17.1%	+ 2.8	
	2-4 hours per day	2.9%	8.6%	+ 5.7	
	4-8 hours per day	2.9%	8.6%	+ 5.7	
	Not applicable	62.9%	48.6%	- 14.3	
	<i>TV screen time weekday - % participants</i>				
	< 1 hour per day	34.3%	20.0%	- 14.3	
	1-2 hours per day	31.4%	25.8%	- 5.3	
	2-4 hours per day	0%	20.0%	+ 20	
	4-8 hours per day	2.9%	8.6%	+ 5.7	
	Not applicable	31.4%	25.7%	- 5.7	
	<i>TV screen time weekend day - % participants</i>				
	< 1 hour per day	22.9%	20.0%	- 2.9	
	1-2 hours per day	40.0%	25.8%	- 14.2	
	2-4 hours per day	5.7%	20.0%	+ 14.3	
	4-8 hours per day	2.9%	8.6%	+ 5.7	
	Not applicable	28.6%	25.7%	- 2.9	
	<i>Tablet screen time weekday - % participants</i>				
	< 1 hour per day	25.7%	22.9%	- 2.8	
	1-2 hours per day	0%	2.9%	+ 2.9	
	2-4 hours per day	0%	0%	0	
	4-8 hours per day	2.9%	2.9%	0	
	Not applicable	71.4%	71.4%	0	
	<i>Tablet screen time weekend day - % participants</i>				
	< 1 hour per day	20.0%	22.9%	+ 2.9	
	1-2 hours per day	5.7%	2.9%	- 2.8	
	2-4 hours per day	0%	0%	0	
	4-8 hours per day	0%	2.9%	+ 2.9	
	Not applicable	74.3%	71.4%	- 2.9	

Elran-Barak and Mozeikov (2020)	<i>Social media – hours/day</i>	3.2 (1.1)	3.9 (1.2)	+ 0.7	< 0.001
	<i>Online health communities – hours/day</i>	2 (0.7)	2.2 (0.9)	+ 0.2	< 0.001
Galle et al (2020b)	<i>Sedentary time – min/day</i>				
	Total <sup>b</sup>	240 (240)	480 (300)	+ 240	NR
	Sedentary leisure activities	38.7	66.6	+ 27.9	< 0.05
	Using electronic devices	65.3	177.7	+ 52.4	< 0.05
	Watching TV/DVD	71.7	119.3	+ 47.6	< 0.05
	Eating	82.3	106.5	+ 24.2	< 0.05
Studying/working	173.9	210.7	+ 36.8	< 0.05	
Husain and Ashkanani (2020)	<i>Hours per day spent on computer/TV/mobile - % participants</i>				NR
	1-2h per day	30.4%	12.0%	- 18.4%	
	3-4h per day	33.3%	19.0%	- 14.3%	
	5-6h per day	30.2%	25.3%	+ 5.1%	
	>6h per day	16.1%	43.6%	+ 27.5%	
Lopez-Bueno et al (2020b)	<i>Screen time ≥2h/day - % participants</i>				
	1 week of lockdown	83.3%	97.7%	+ 14.7%	< 0.001*
	2 weeks of lockdown	83.3%	96.9%	+ 13.9%	
	3 weeks of lockdown	83.3%	98.7%	+ 15.7%	
Majumdar et al (2020)	<i>Change in screen time on cell phone – hours/day</i>				NR
	Office workers	3 (1.59)	4 (2.24)	+ 1.0	
	Students	3 (1.36)	5.2 (1.73)	+ 2.2	
	<i>Change in screen time on computer – hours/day</i>				
	Office workers				
	Students				
	<i>Change in screen time TV – hours/day</i>				
	Office workers	6.4 (2.9)	8.2 (3.36)	+ 1.8	
Students	1.3 (0.95)	1.6 (1.75)	+ 0.3		
Meyer et al. (2020)	<i>Sitting time - % of population</i>				
	Previously active	NR	NR	+26.4%	NR
	Previously inactive			+16.0%	
	<i>Screen time - % of population</i>				

	Previously active Previously inactive			+37.8% +25.3%	
Mitra et al (2020)	<p>Screen time - % participants</p> <p>(All participants)</p> <p>Decrease Same Increase</p> <p>(Children aged 5-11)</p> <p>Decrease Same Increase</p> <p>(Youth aged 12-17)</p> <p>Decrease Same Increase</p> <p>Non-screen sedentary time - % participants</p> <p>(All participants)</p> <p>Decrease Same Increase</p> <p>(Children aged 5-11)</p> <p>Decrease Same Increase</p> <p>(Youth aged 12-17)</p> <p>Decrease Same Increase</p>	NR	NR	3.7% 17.5% 78.8%	NR
				3.8% 18.3% 77.9%	
				3.6% 16.9% 79.5%	
				7.2% 44.2% 48.6%	
				6.8% 35.5% 57.7%	
				7.6% 51.9% 40.6%	
Mon-Lopez et al (2020b)	Screen time – min/day				
	TV time	79.54 (69.11)	152.88 (126.98)	+ 73.34	< 0.001
	PC time	206.69 (170.33)	265.97 (197.84)	+ 59.28	< 0.001
	Phone time	149.41 (123.29)	205.92 (162.18)	+ 56.51	< 0.001
	Total screen time	433.29 (225.66)	326.97 (319.79)	+ 190.68	< 0.001

Munasinghe et al (2020)	Watching TV - Yes/No Watched TV	55.4%	52.1%	- 3.3%	NR
Pietrobelli et al. (2020)	Screen time Hours/day	2.76 (1.64)	7.61 (2.13)	+ 4.85 (2.40)	p < 0.001
Robinson et al (2020)	Time spent sitting down - % participants A lot less Less A little less Same A little more More A lot more	NR	NR	1.0% 2.0% 5.0% 20.0% 20.0% 28.0% 25.0%	NR
Romero-Blanco et al (2020)	Daily sitting time Min/day	418.59 (201.58)	525.35 (194.57)	+ 106.76	< 0.001
Ruiz-Roso et al (2020a)	Sitting time	NR	In text - 'During the COVID-19 lockdown, we noticed a significant increase in the daily hours that the participants of the study were sitting without doing any physical activity at all (Figure 5). Regarding the average minutes per week spent walking, we observed a significant decrease during lockdown compared to the period before.'	NR	<0.0001
Sanudo et al (2020)	Sitting time Hours/day	6.4 (2.6)	9.7 (2.9)	+ 3.3	0.002

Savage et al (2020)	<i>Sedentary behaviour</i>	NR	In text - 'Sedentary behaviour was greater at T4 compared to T1, T2 and T3 (Bonferroni post hoc test, P < .0001), and was greater at T3 compared to T1 (P < .0001).'	NR	NR
Srivastav et al (2020)	<i>SB – MET-min/week</i> Sitting	332.9	1255.3	+ 922.4	< 0.001
Yang et al (2020a) <sup>b</sup>	<i>Screen time – hours/day</i> High School Students (< 18 years old) Undergraduate Students Graduate students All participants  <i>Sedentary time on weekdays – hours/day</i> High School Students (< 18 years old) Undergraduate Students Graduate students All participants  <i>Sedentary time on weekend days – hours/day</i> High School Students (< 18 years old) Undergraduate Students Graduate students All participants	4.0 4.0 5.0 4.0  3.3 4.0 6.0 4.0  3.4 4.0 5.0 4.0	5.0 5.0 5.0 5.0  4.0 5.0 6.0 4.5  4.0 5.0 6.0 4.5	+ 1 + 1 0 + 1  + 0.7 + 1 0 + 0.5  + 0.6 + 1.0 + 1.0 + 0.5	< 0.001 < 0.001 < 0.001 < 0.001  < 0.001 < 0.001 < 0.01 < 0.001  < 0.001 < 0.001 < 0.001 < 0.001
Yang et al (2020b)	<i>Sedentary time</i> Min/day	367.99 (167.01)	369.55 (152.85)	+ 1.56	0.85
Wang et al (2020)	<i>Sitting time increased</i> % participants  <i>Lying down time increased</i> % participants	NR	NR	67%  61%	NR

NR, Not reported; TV, television; DVD, digital video disc;

<sup>b</sup>Data reported as median (interquartile range)

\* between groups