Supplementary Materials
Since this is a very extensive supplemental material, the format and content have not been edited by JRM

Fig. S1. Forest plot showing pooled estimate of prevalence of different lung function abnormalities in coronavirus survivors up to 6 months (top) and over 6 months (bottom)
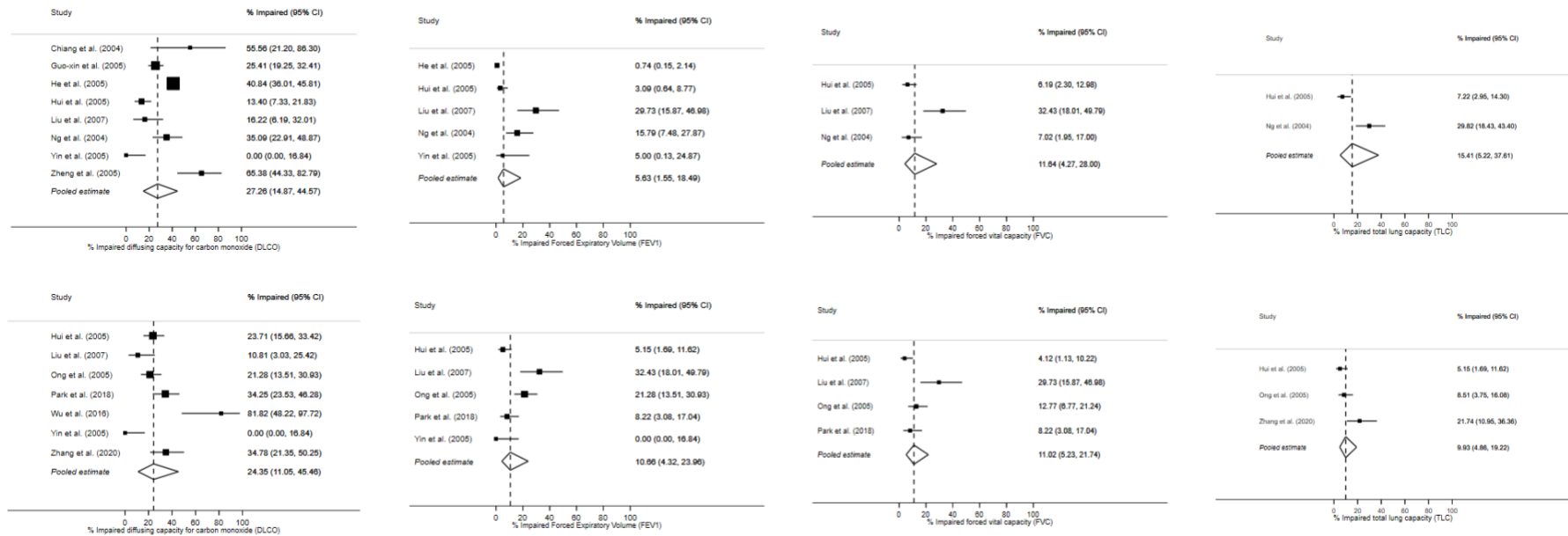
Fig. S2. Forest plot showing pooled estimate of mean values of different lung function abnormalities in CoV survivors up to 6 months (top) and over 6 months (bottom).
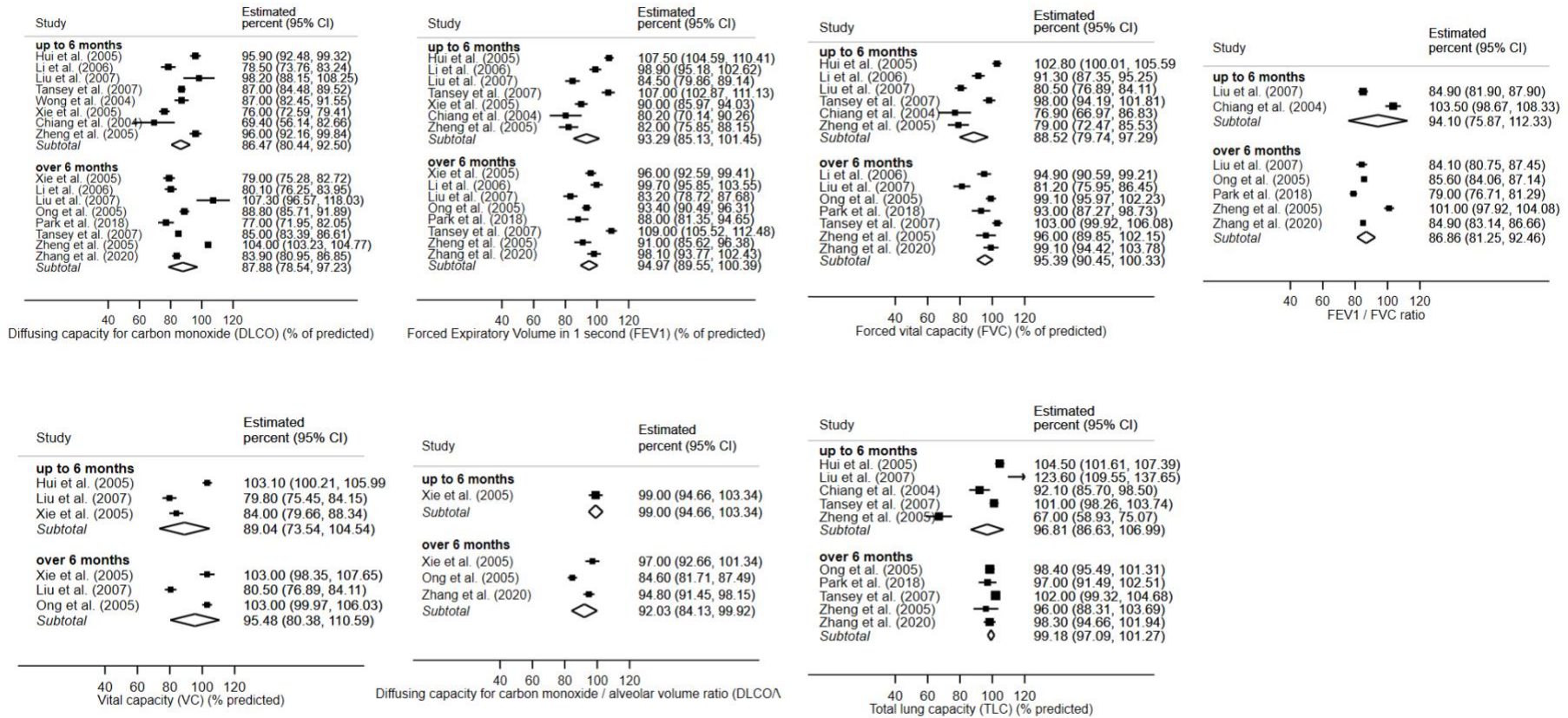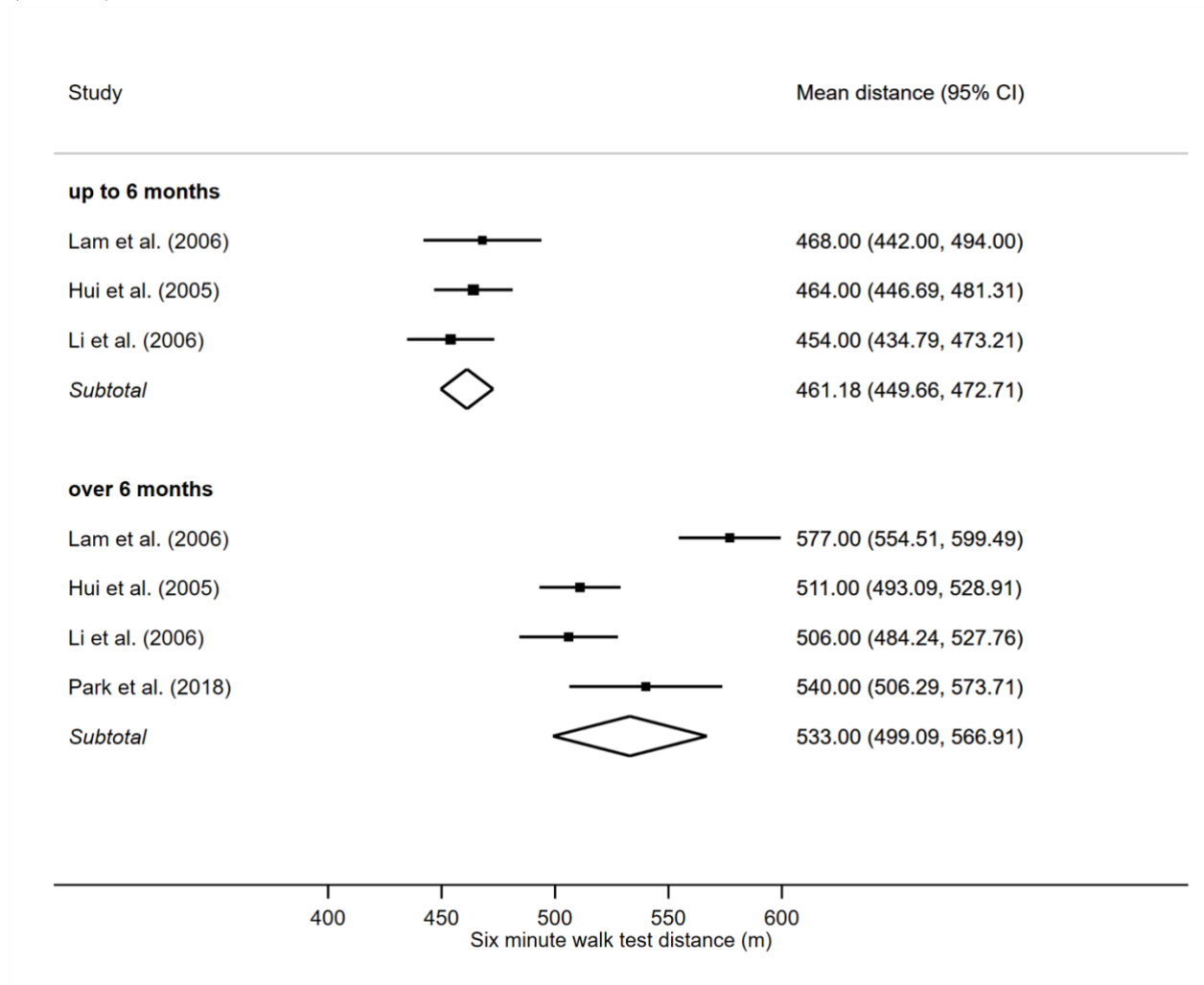
Fig. S3. Summary plot showing pooled estimate of 6-minute walking distance in CoV survivors up to 6 months (top) and over 6 months (bottom)

[3]

Fig. S4. Forest plot showing pooled estimate of prevalence of different psychological conditions in coronavirus survivors over 6 months
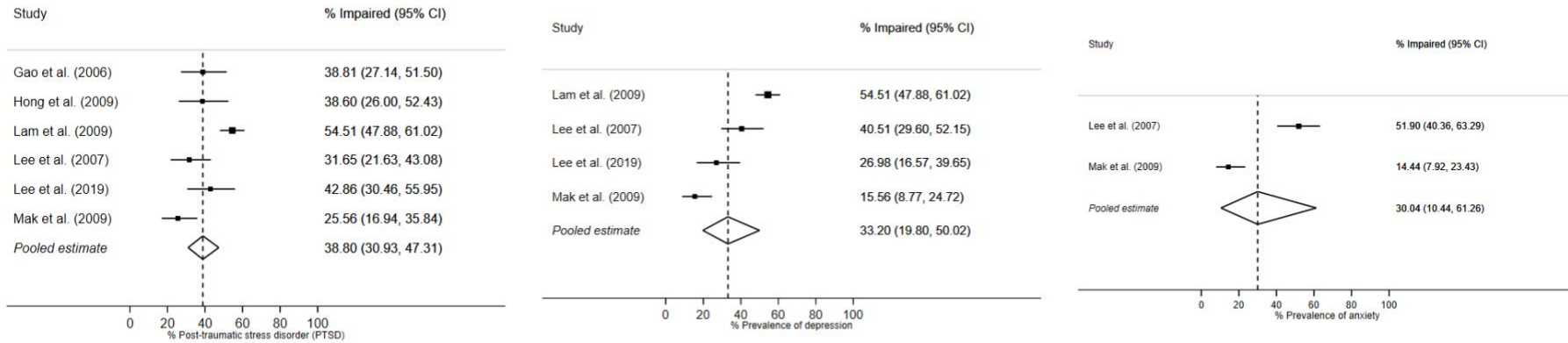
Fig. S5. Forest plot showing pooled estimate of mean score for different domains of SF-36 in CoV survivors up to 6 months (top) and over 6 months (bottom)
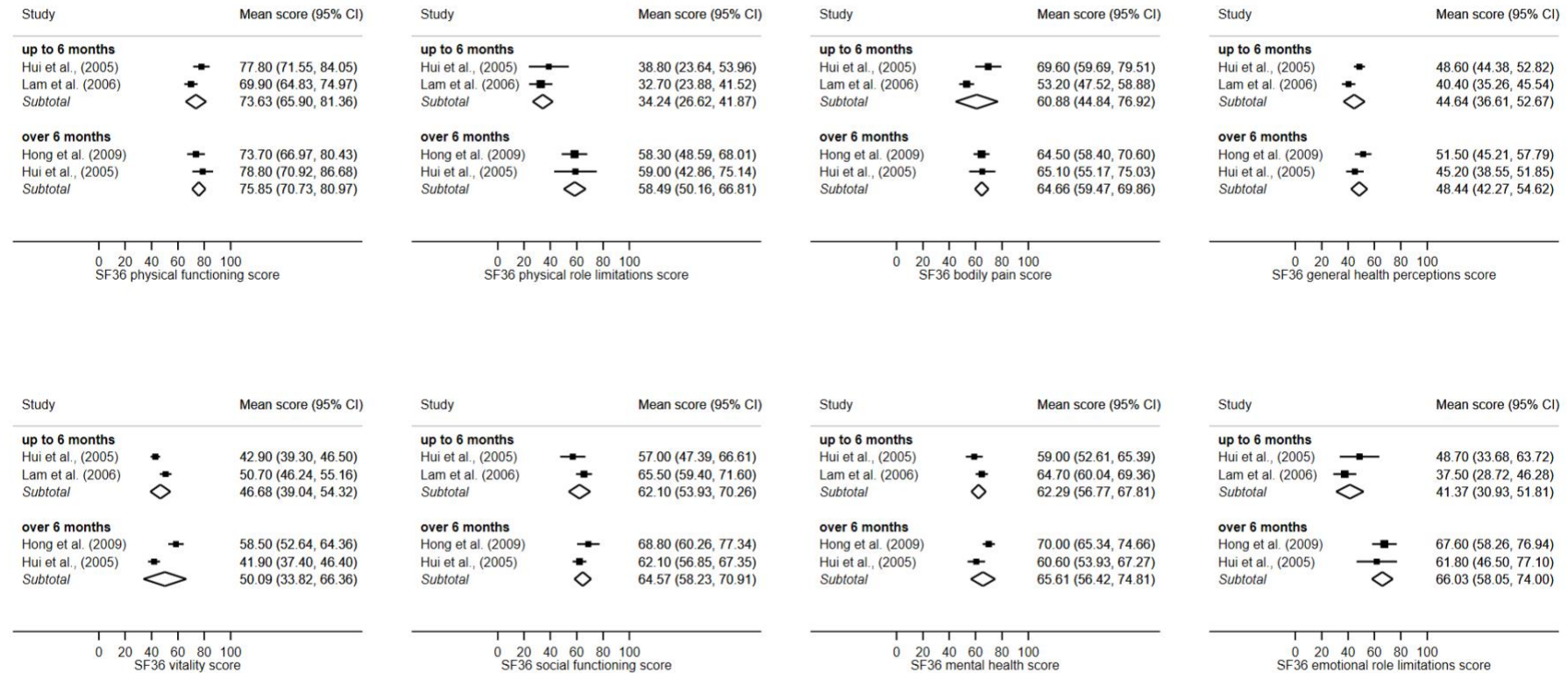
Fig. S6. Forest plot showing pooled estimate of mean score for different domains of SGRQ in CoV survivors up to 6 months (top) and over 6 months (bottom)
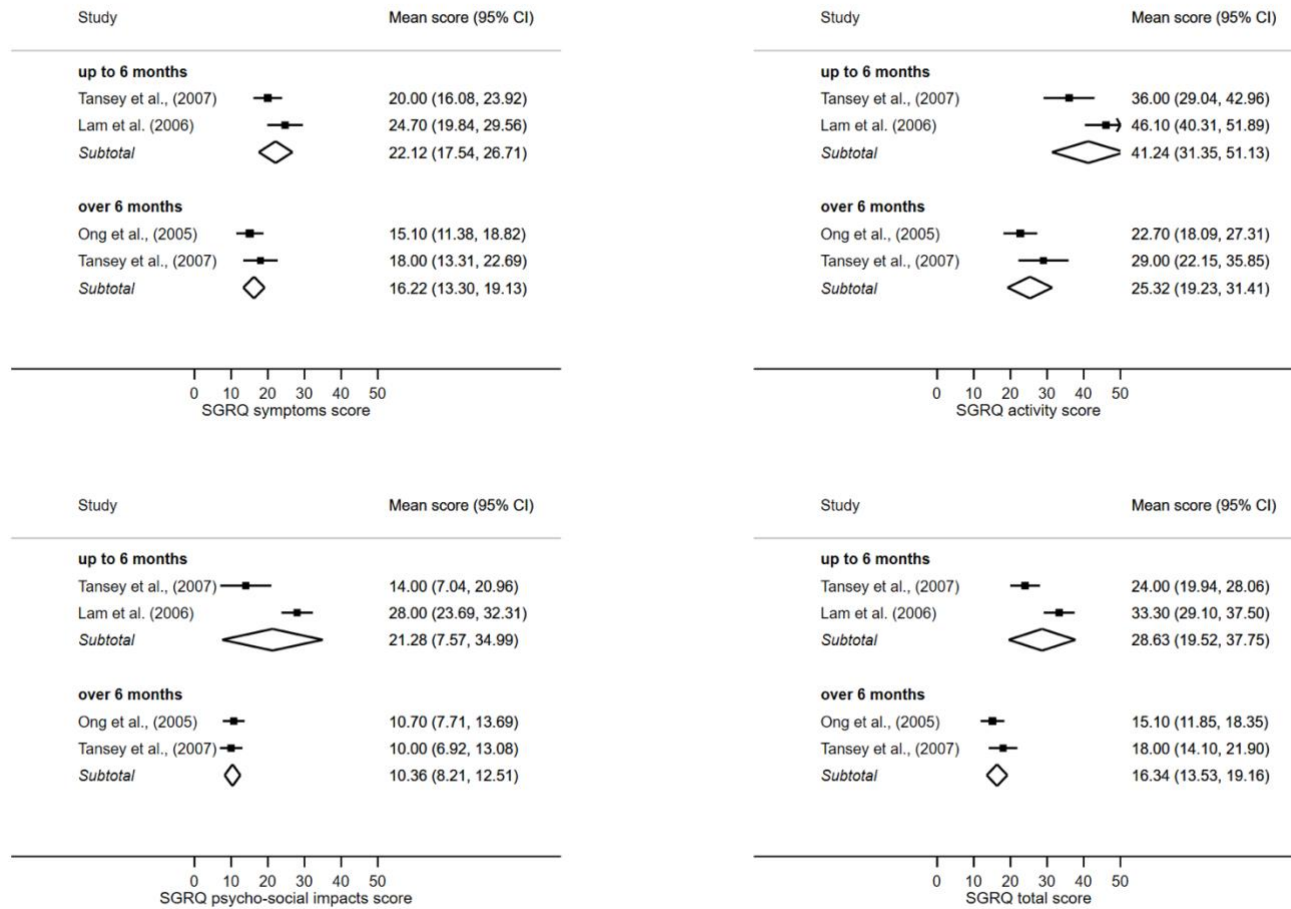
Table SI. OCEBM Levels of Evidence

Level of Evidence	Type of Study
Level 1a	Systematic review of prospective cohort studies
Level 1b	Prospective cohort study with good follow-up (>80%)
Level 1c	All or none case-series
Level 2a	Systematic review of retrospective cohort study
Level 2b	Prospective cohort study with follow-up (<80%) or Retrospective cohort study
Level 2c	Ecological studies
Level 3a	Systematic Review of Non-consecutive cohort study or very limited population
Level 3b	Non-consecutive cohort study
Level 4	Case-series
Level 5	Expert opinion without explicit critical appraisal, or based on physiology, bench research or "first principles"

Table SII:. Lung function outcomes in coronavirus survivors.

SUPPLEMENTARY TABLE 2 · LUNG FUNCTION OUTCOMES

	PATIENT DEMOGRAPHICS								PREVALENCE OF LUNG FUNCTION ABNORMALITIES									MEAN MEASUREMENTS OF LUNG FUNCTION PARAMETRES								
Study (Year)	Coronavirus outbreak	Country	Level of Evidence	Sample Size [n]	Setting	Follow-up Period	PA or PD	Patients followed-up [% (n/totall)]	Prevalence of ↓DLCO [%(n/totall)]	Prevalence of ↓FEV1 [%(n/totall)]	Prevalence of ↓FVC [%(n/totall)]	Prevalence of Abnormal TLC [%(n/totall)]	Prevalence of Abnormal FEV1/FVC [%(n/totall)]	Prevalence of Abnormal VC [%(n/totall)]	Prevalence of Obstructive [%(n/totall)]	Prevalence of Restrictive [%(n/totall)]	Any lung abnormality [%(n/totall)]	DLCO [Mean % predicted (SD)]	FEV1 [Mean % predicted (SD)]	FVC [Mean % predicted (SD)]	FEV1/FVC [Mean % predicted (SD)]	VC [Mean % predicted (SD)]	DLCO/VA [Mean % predicted (SD)]	TLC [Mean % predicted (SD)]	FEF25-75 [Mean % predicted (SD)]	Symptoms [n(%)]
He et al. (2005)[2]	SARS	Beijing	1b	406	Hospital	6 mon	PD	99 (404/406)	41 (165 / 404)	1 (3 / 406)	–	–	–	7 (28 / 406)	1 (3 / 406)	7 (28 / 406)	–	–	–	–	–	–	–	–	–	–
Chen et al. (2006)[1]	SARS	Beijing	1b	124	Hospital	3 mon	PD	89 (111/124)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Chest Rightness & Dyspnoea –33, palpitations - 12; fatigue - 19; arthralgia - 35
						18 mon	PD	89 (111/124)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Chest Rightness & Dyspnoea –13, palpitations - 8; fatigue - 10; arthralgia - 25
Tansey et al. (2007)[3]	SARS	Toronto	1b	117	Hospital	3 mon	PD	100 (84/84)	–	–	–	–	–	–	–	–	–	87 (11·8)	107 (19·3)	98 (17·8)	–	–	–	98 (23)	–	–
						6 mon	PD	100 (100/100)	–	–	–	–	–	–	–	–	–	86 (9·6)	110 (16·3)	103 (17·8)	–	–	–	101 (14·0)	–	–
						12 mon	PD	100 (117/117)	–	–	–	–	–	–	–	–	–	85 (8·9)	109 (19·2)	103 (17·0)	–	–	–	102 (14·8)	–	–
Hui et al. (2005)[4]	SARS	Hong Kong	1b	110	Hospital and ICU	3 mon	PA	88 (97/110)	13·5 (13 / 97)	3 (3 / 97)	6 (6 / 97)	7 (7 / 97)	–	6 (6 / 97)	–	–	–	95·9 (17·2)	107·5 (14·6)	102·8 (14·0)	–	103·1 (14·5)	104·5 (18·0)	96·0 (25·6)	–
						6 mon	PA	88 (97/110)	16 (15 / 97)	4 (4 / 97)	4 (4 / 97)	8 (8 / 97)	–	5 (5 / 97)	–	–	–	95·5 (19·4)	106·8 (14·9)	103·6 (14·5)	–	103·5 (14·9)	106·0 (16·7)	90·0 (27·7)	–
						12 mon	PA	88 (97/110)	24 (23 / 97)	5 (5 / 97)	4 (4 / 97)	5 (5 / 97)	–	5 (5 / 97)	–	–	–	91·8 (17·7)	106·5 (14·7)	104·15 (14·7)	–	103·7 (15·3)	105·8 (16·1)	87·5 (26·4)	–
Zheng-Yu et al. (2003)[5]	SARS	Beijing	1b	100	Hospital	2 mon	PD	91 (91 / 100)	–	–	–	–	–	–	–	–	–	80	93	96	83	–	–	–	–	–
Ong et al. (2005)[7]	SARS	Singapore	1b	94	Hospital and ICU	12 mon	PD	100 (94/94)	21·3 (20 / 94)	21·3 (20 / 94)	12·8 (12 / 94)	8·5 (8 / 94)	6·4 (6·4 / 94)	–	–	–	37·2 (35 / 94)	88·8 (15·3)	93·4 (14·4)	99·1 (15·5)	85·6 (7·6)	103·0 (15·0)	84·6 (14·3)	98·4 (14·4)	–	Cough – 28 (30); increased sputum - 19(20) ; dyspnoea - 28 (30); wheeze - 7 (7)
Park et al. (2018)[8]	MERS	Korea	1b	73	Nation-wide	12 mon	PD	100 (73/73)	34 (25 / 73)	8 (6 / 73)	8 (6 / 73)	–	–	–	–	–	–	77 (22)	88 (29)	93 (25)	79 (10)	–	–	97 (24)	–	–
Li et al. (2006)[9]	SARS	Hong Kong	1b	45	ICU	3 mon	PA	80 (36/45)	–	–	–	–	–	–	–	–	–	78·5 (14·5)	98·9 (11·4)	91·3 (12·1)	–	–	–	92·6 (13·8)	–	–
						6 mon	PA	80 (36/45)	–	–	–	–	–	–	–	–	–	84·3 (18·3)	100·2 (14·8)	95·8 (14·0)	–	–	–	108·1 (17·3)	–	–
						12 mon	PA	80 (36/45)	–	–	–	–	–	–	–	–	–	80·1 (17·5)	99·7 (11·8)	94·9 (13·2)	–	–	–	87·8 (13·9)	–	–
Liu et al. (2007)[10]	SARS	Beijing	1b	37	Hospital	1 mon	PD	100 (37/37)	32·4 (12 / 37)	24·3 (9 / 37)	27 (12 / 37)	–	8·1 (3 / 57)	–	–	–	–	80·9 (37·5)	81·5 (15·7)	78·2 (13·7)	84·7 (11·5)	78·4 (16·1)	–	120·1 (51·4)	60·7 (25·3)	–
						3 mon	PD	100 (37/37)	16·2 (6 / 37)	29·7 (11 / 37)	32·4 (12 / 37)	–	5·4 (2 / 37)	–	–	–	–	98·2 (31·2)	84·5 (14·4)	80·5 (11·2)	84·9 (9·3)	79·8 (13·5)	–	123·6 (43·6)	64·5 (21·4)	–
						12 mon	PD	100 (37/37)	10·8 (4 / 37)	32·4 (12 / 37)	29·75 (11 / 37)	–	5·4 (2 / 37)	–	–	–	–	107·3 (33·3)	83·2 (13·9)	81·2 (16·3)	84·1 (10·4)	80·5 (11·2)	–	120·8 (40·3)	63·8 (24·9)	–
						3 yrs·	PD	100 (37/37)	5·4 (2 / 37)	32·4 (12 / 37)	32·4 (12 / 37)	–	5·4 (2 / 37)	–	–	–	–	122·4 (32·9)	85·1 (15·8)	83·1 (15·4)	86·0 (6·8)	81·1 (15·6)	–	130·5 (38·8)	65·6 (25·9)	–
Ng et al. (2004)[11]	SARS	Hong Kong	2b	93	Hospital	6 mon	PA	59 (57 / 97)	35 (20 / 57)	16 (9 / 57)	7 (4 / 57)	30 (17 / 57)	–	–	2 (1 / 57)	28 (16 / 57)	75 (43/57)	–	–	–	–	–	–	–	–	–
Zheng et al. (2005)[12]	SARS	Guangzhou (China)	2b	80	Hospital	6 mon	PD	33 (26 / 80)	65 (17 / 26)	–	–	–	–	–	–	–	–	96 (10)	82 (16)	79 (17)	103 (10)	–	69 (15)	67 (21)	93 (27)	–
						9 mon	PD	33 (26 / 80)	–	–	–	–	–	–	–	–	–	96 (16)	91 (12)	92 (13)	105 (6)	–	85 (9)	86 (15)	83 (17)	–
						9-12 mon	PD	33 (26 / 80)	–	–	–	–	–	–	–	–	–	104 (2)	91 (14)	96 (16)	101 (8)	–	102 (18)	96 (20)	76 (23)	–
						12-15 mon	PD	33 (26 / 80)	–	–	–	–	–	–	–	–	–	93 (21)	94 (18)	93 (17)	106 (4)	–	81 (20)	97 (20)	86 (22)	–
						15-18 mon	PD	33 (26 / 80)	–	–	–	–	–	–	–	–	–	111 (7)	104 (1)	106 (10)	103 (9)	–	118 (21)	114 (33)	83 (33)	–
Zhang et al. (2020)[13]	SARS	Beijing	2b	71	Hospital	2 yrs·	PD	65 (46/71)	35 (16 / 46)	–	–	22 (10 / 46)	2 (1 / 52)	–	–	22 (10 / 46)	–	83·9 (10·2)	98·1 (15)	99·1 (16·2)	84·9 (6·1)	–	94·8 (11·6)	98·3 (12·6)	85·3 (21·5)	–
						15 yrs·	PD	73 (52/71)	38 (18 / 52)	–	–	0 (0 / 52)	2 (1 / 52)	–	2 (1 / 52)	0 (0 / 52)	–	88·4 (14·9)	100·2 (13·4)	103·3 (14·8)	81·8 (5·0)	–	92·4 (16·6)	102·6 (12·6)	79·2 (22·8)	–
Chiang et al. (2004)[14]	SARS	Taiwan	2b	14	Hospital	6 mon	PA	64 (9/14)	50 (5 / 9)	–	–	–	–	–	–	–	–	69·4 (20·3)	80·2 (15·6)	76·9 (15·2)	103·5 (7·4)	–	–	92·1 (9·8)	–	–
Xie et al. (2005)[15]	SARS	Beijing	3b	311	Hospital	2 mon	PD	13 (40/311)	–	–	–	–	–	–	–	–	–	69 (9)	83 (13)	–	–	87 (15)	95 (14)	–	–	–
						4 mon	PD	13 (40/311)	–	–	–	–	–	–	–	–	–	76 (11)	90 (13)	–	–	94 (14)	99 (14)	–	–	–
						6 mon	PD	13 (40/311)	–	–	–	–	–	–	–	–	–	76 (11)	93 (12)	–	–	100 (15)	99 (14)	–	–	–
						11 mon	PD	13 (40/311)	–	–	–	–	–	–	–	–	23·7 (85 / 311)	79 (12)	96 (11)	–	–	103 (15)	97 (14)	–	–	–
Guo-xin et al. (2005)[16]	SARS	Beijing	3b	181	Hospital	6 mon	PD	100 (181/181)	25 (46 / 181)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Wong et al. (2004)[17]	SARS	Hong Kong	3b	99	Hospital	3 mon	PA	54 (53/99)	–	–	–	–	–	–	–	–	–	87·0 (16·9)	–	–	–	–	–	–	–	–
						6 mon	PA	37 (37/99)	–	–	–	–	–	–	–	–	–	88·0 (20·9)	–	–	–	–	–	–	–	–
Yin et al. (2005)[18]	SARS	Beijing	4	–	Hospital	1 mon	PD	20	5 (1 / 20)	15 (3 / 20)	–	–	–	–	–	–	–	83·9 (0·0)	61·3 (4·1)	–	–	–	–	–	–	–
						3 mon	PD	21	0 (0 / 20)	5 (1 / 20)	–	–	–	–	–	–	–	0·0 (0·0)	67·0 (0·0)	–	–	–	–	–	–	–
						6 mon	PD	22	0 (0 / 20)	5 (1 / 20)	–	–	–	–	–	–	–	0·0 (0·0)	72 (0·0)	–	–	–	–	–	–	–
						12 mon	PD	23	0 (0 / 20)	0 (0 / 20)	–	–	–	–	–	–	–	0·0 (0·0)	0·0 (0·0)	–	–	–	–	–	–	–
Wu et al. (2016)[19]	SARS	Beijing	4	–	Hospital	7 years	PD	11	82 (9 / 11)	–	–	–	–	–	–	–	82 (9 / 11)	–	–	–	–	–	–	–	–	–

DLCO = Diffusing capacity for carbon monoxide; FEV1 = Forced Expiratory Volume in 1 second; FVC = Forced Vital Capacity; TLC = Total Lung Capacity; SARS = Severe acute respiratory syndrome; MERS = Middle east respiratory syndrome; PA/D = post-admission/discharge;

Table SIII. Mental health outcomes in coronavirus survivors.

SUPPLEMENTARY TABLE 3· MENTAL HEALTH OUTCOMES

	PATIENT DEMOGRAPHICS										PREVALENCE OF MENTAL HEALTH OUTCOMES					MEAN SCORES FOR MENTAL HEALTH OUTCOMES			
Study (Year)	Coronavirus outbreak	Country	Level of Evidence	Sample Size [n]	Age [Mean(SD)]	Sex [% male (n/total)]	Setting	Follow-up Period	PA or PD	Patients followed-up [% (n/total)]	Prevalence of PTSD [%(n/total)]	Prevalence of Depression [%(n/total)]	Prevalence of Anxiety [%(n/total)]	Prevalence of Chronic Fatigue [%(n/total)]	Prevalence of Pain Disorder [%(n)]	Mean PTSD score [Mean (SD)]	Mean Depression Score [mean (SD)]	Mean Anxiety Score [mean (SD)]	Mean Fatigue Score [mean (SD)]
Lee et al. (2007)[20]	SARS	Hong Kong	1b	120	..	36 (35/96)	Hospital	12 mon	PD	80% (96/120)	32·2 (25 / 79)	40·7 (32 / 79)	51·5 (41 / 79)	..	..	1·4 (0·9)	11·1 (9·1)	10·4 (8·0)	..
											(IES-R)	(DASS)	(DASS)	..	..	IES-R	DASS	DASS	..
Mak et al. (2009)[21]	SARS	Hong Kong	1b	93	41 (12)	38 (34/90)	Hospital	2·5 yrs	PA	96·8(90 / 93)	25·6 (23 / 90)	15·6 (14 / 90)	15·2 (13 / 90)	..	..	..	..	..	..
											(IES-R)	(HADS)	(HADS)	..	..	..	..	..	..
Gao et al. (2006)[22]	SARS	Beijing	1b	76	25 (9)	31 (21/67)	Hospital	3 mon	PD	88 (67 / 76)	46·2 (31 / 67)	..	..	..	..	..	..	..	..
								12 mon	PD	88 (67 / 76)	38·8 (26 / 67)	..	..	..	..	..	..	..	..
											(PTSD-SS)	..	..	..	..	..	..	..	..
Hong et al. (2009)[23]	SARS	Beijing	1b	70	39 (12)	33 (23/70)	Hospital	2 mon	PD	100 (70 / 70)	40·0 (28 / 70)	..	..	..	..	32·0 (18·3)	39·5 (12,5)	33·3(15·9)	..
								7 mon	PD	86 (60 / 70)	41·0 (25 / 60)	..	..	..	..	25·5 (16·5)	38·9 (13·0)	30·5 (12·9)	..
								10 mon	PD	81 (57 / 70)	38·6 (22 / 57)	..	..	..	..	27·9 (19·9)	37·5 (13·1)	30·1 (12·6)	..
								20 mon	PD	83 (58 / 70)	39·7 (23 / 58)	..	..	..	..	22·3 (20·1)	33·1 (12·8)	29·0 (13·4)	..
								4 yrs	PD	83 (57 / 70)	42·1 (24 / 58)	..	..	..	..	22·1 (21·2)	32·4 (15·0)	28·8 (16·3)	..
											(CCMD-III)	..	..	..	..	IES-R	SDS	SAS	..
Lee et al. (2019)[24]	MERS	Korea	1b	72	50 (12)	62 (32/52)	Hospital	12 mon	PD	88 (63 / 72)	42·3 (27 / 63)	26·9 (17 / 63)	..	48·1 (30 / 63)	..	25·8 (20·0)	6·5 (5·7)	..	3·5 (1·9)
								18 mon	PD	75 (54 / 72)	26·9 (15 / 54)	17·3 (9 / 54)	..	32·7 (18 / 54)	..	19·3 (21·0)	5·4 (5·7)	..	2·8 (1·9)
											(IES-R)	(PHQ-9)	..	(FSS)	..	IES-R	PHQ-9	..	FSS
Lam et al. (2009)[25]	SARS	Hong Kong	2b	233	43 (14)	30 (69/233)	Hospital	3·5 yrs	PD	78 (181 / 233)	54·5 (127/233)	39 (91/233)	..	40·3 (94 / 233)	36·4 (85 / 233)	1·6 (1·0)	7·4 (4·5)	7·6 (4·4)	..
											(IES-R)	(HADS)	..	(CFQ)		IES-R	HADS	HADS	..

PTSD = Post-traumatic stress disorder; DASS = Depression and Anxiety Stress Scale; IES-R = Impact of Events- Revised; HADS = Hospital Anxiety and Depression Scale; PTSD-SS = PTSD self-rating scale; CCMD-III = Chinese classification of mental disorders; CFQ = Chalder Fatigue Questionnaire; PHQ = Patient Health Questionnaire; FSS = Fatigue Severity Scale; CDC = Centres for Disease Control; SARS = Severe acute respiratory syndrome; MERS = Middle east respiratory syndrome; PA/D = post-admission/discharge;

Table SIV. Quality of life outcomes in coronavirus survivors.

SUPPLEMENTARY TABLE 4· QUALITY OF LIFE OUTCOMES

Study (Year)	Coronavirus outbreak	Country	Level	Sample Size [n]	Age [Mean (SD)]	Sex [% male (n/total)]	Setting	Follow-up Period	PA or PD	Patients followed-up [% (n/total)]	Physical Functioning [Mean (SD)]	Role limitations (Physical) [Mean (SD)]	Body Pain [Mean (SD)]	General Health [Mean (SD)]	Vitality [Mean (SD)]	Social Functioning [Mean (SD)]	Mental Health [Mean (SD)]	Role limitation (Emotional) [Mean (SD)]	Symptoms [Mean (SD)]	Activity [Mean (SD)]	Impacts [Mean (SD)]	Total [Mean (SD)]
Tansey et al. (2007)[4]	SARS	Toronto	1b	117	42 (13)	33 (39/117)	Hospital	3 mon	PD	72 (84/117)	35·8	42	45·2	42·2	38·8	35·4	43·2	40·2	20 (20)	36 (35·5)	14 (35·5)	24 (20·7)
								6 mon	PD	85 (100/117)	42	45·6	46·6	42·2	41·6	41	46	43·2	15 (23·7)	31 (40)	9 (17)	17 (20·7)
								12 mon	PD	100 (117/117)	41	45·4	47	42·8	42·8	42	47·8	43·2	18 (25·9)	29 (37·8)	10 (17·0)	18 (21·5)
Hui et al. (2005)[5]	SARS	Hong Kong	1b	110	37 (10)	40 (39 / 97)	Hospital	3 mon	PA	88 (97/110)	77·8 (31·4)	38·8 (76·2)	69·6 (49·8)	48·6 (21·2)	42·9 (18·1)	57·0 (48·3)	59·0 (32·1)	48·7 (75·5)	..	..	..	..
								6 mon	PA	88 (97/110)	79·6 (36·1)	61·7 (80·7)	68·0 (50·3)	47·5 (32·4)	43·9 (19·8)	65·0 (39·3)	60·1 (29·7)	64·1 (67·4)	..	..	..	..
								12 mon	PA	88 (97/110)	78·8 (39·6)	59·0 (81·1)	65·1 (49·9)	45·2 (33·4)	41·9 (22·6)	62·1 (26·4)	60·6 (33·5)	61·8 (76·9)	..	..	..	..
Ong et al. (2005)[1]	SARS	Singapore	1b	94	37 (12)	26 (24/94)	Hospital	12 mon	PD	100 (94/94)	..	..	..	..	..	..	..	..	15·1 (18·4)	22·7 (22·8)	10·7 (14·8)	15·1 (16·1)
Hong et al. (2009)[23]	SARS	Beijing	1b	70	39 (12)	33 (23/70)	Hospital	10 mon	PD	81 (57/70)	73·7 (30·9)	58·3 (44·6)	64·5 (28·0)	51·5 (28·9)	58·5 (26·9)	68·8 (31·2)	70·0 (21·4)	67·6 (42·9)				
Lam et al. (2006)[26]	SARS	Hong Kong	2b	116	46 (15)	44 (51 / 81)	Hospital	6 mon	PA	70 (81 / 116)	69·9 (23·3)	32·7 (40·5)	53·2 (26·1)	40·4 (23·6)	50·7 (20·5)	65·5 (28·0)	64·7 (21·4)	37·5 (40·3)	24·7 (22·3)	46·1 (26·6)	28·0 (19·8)	33·3 (19·3)

SF-36 = Short form 36 health survey; SGRQ = St George's Respiratory Questionnaire; SARS = Severe acute respiratory syndrome; MERS = Middle east respiratory syndrome;

PA/D = post-admission/discharge