

A SYSTEMATIC REVIEW ON THE USE OF EQ-5D DURING THE COVID-19 PANDEMIC SITUATION

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I BACKGROUND

The EQ-5D is the most widely used generic preference-based instrument. The purpose of this systematic review was to provide a general overview of the available EQ-5D studies during COVID-19 pandemic.

II METHODS

Six electronic databases (PubMed, Scopus, Embase, the Cochrane, CINAHL and PsycINFO) were searched without publication date restrictions for the terms “COVID-19”, “coronavirus”, and “EQ-5D”, “EuroQoL”. The inclusion criteria of this review were on the original reports that used approved EQ-5D versions. Research papers and conference abstracts were included and summarized.

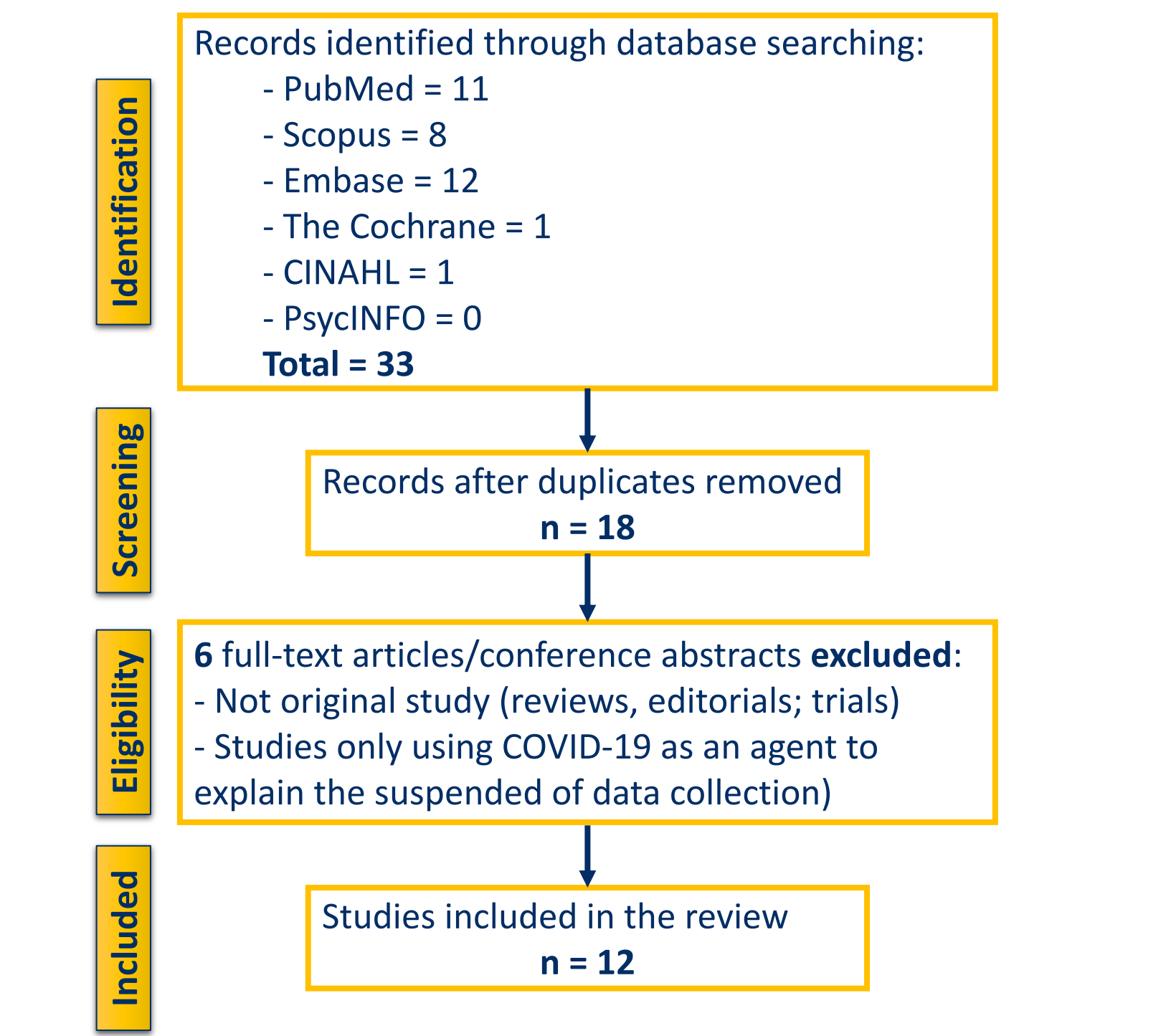


Figure 1. Flowchart of search, identification, and screening of studies for inclusion

Table 1. Characteristics of EQ-5D studies during COVID-19 pandemic

Reference	Population	Sample sizes	Collection method	Use of EQ-5D version	EQ-5D tariff used
Ping W. et al. 2020	general population	1,139	online survey	EQ-5D-3L	China
Lara B. et al. 2020	patients with MCI or mild AD**	40	telephone	n/a	n/a
Halpin SJ. et al. 2020	survivors discharged from COVID-19	100	telephone	EQ-5D-5L	The UK
Wong EL. et al. 2020	Employees**	1,048	online survey	EQ-5D-5L	Hong Kong
Bäuerle A. et al. 2020	general population**	15,037	online survey	EQ-5D-3L	n/a
Guo Y. et al. 2020	patients with skin diseases**	506	online survey	EQ-5D-3L	China
Azizi A. et al. 2020	home confinement residents**	537	online survey	EQ-5D-5L	France
Musche V. et al. 2020	cancer patients; healthy controls	300	online survey	EQ-5D-3L	n/a
Skoda EM. et al. 2020	Healthcare professionals; non-HPs	12,863	online survey	EQ-5D-3L	n/a
Nakayama A. et al. 2020	heart failure patients	236	telephone	EQ-5D-5L	n/a
Ramos-Goñi J.M. et al. 2020*	general population	500	online survey	EQ-5D-5L	n/a
Mao Z. et al. 2020*	general population	993	online survey	EQ-5D-5L	n/a

n/a: not applicable; * Conference abstract; ** studies tried to measure the effect of the quarantine.

III RESULTS

Our search strategy identified 33 studies. After removing 15 duplicates and excluding 6 publications (reviews, editorials; trials; studies only using COVID-19 as an agent to explain the suspended of data collection), 12 studies (10 research papers and 2 abstracts) were included in this review (Figure 1)

As table 1, overall, 33,299 participants were involved in the 12 studies; sample sizes varied between 40 and 15,037 participants. The first study was launched on March 3 2020. Most of the studies were conducted in Europe (n=6) or Asia (n=5) (Figure 2). Overall, 8 (66.7%) of the studies were cross-sectional, and there were 9 (75.0%) online surveys. Only one of 12 studies (8.3%) conducted on discharged (confirmed) COVID-19 patients, while the proportion of studies on patients with other diseases or general population were 33.3%, 58.3%, respectively. In 7 out of 12 studies (58.3%) which conducted during the quarantine period, 5 tried to measure the effect of the quarantine. Six studies (50.0%) used EQ-5D-5L, and 5 (41.7%) used EQ-5D-3L. Value sets were reported in only 5 research papers and they were based on China, Hong Kong, the United Kingdom or France tariff (2, 1, 1, 1 study, respectively). Regarding EQ-5D results in the view, 7 (58.3%) research papers reported index scores; 3 (25.0%) only reported EQ VAS, and 2 (16.7%) abstracts reported no result. The mean EQ-5D index score for the general population during the lockdown ranged from 0.860 to 0.949; the anxiety/depression dimension of the EQ-5D descriptive system was the most impacted. Among participants treated for COVID-19, lower mean EQ-5D scores were reported in Intensive Care Unit (ICU)-survivors compared to ward-patients (ranging from 0.538-0.693, 0.663-0.724, respectively), and the mobility dimension was greatly impacted.

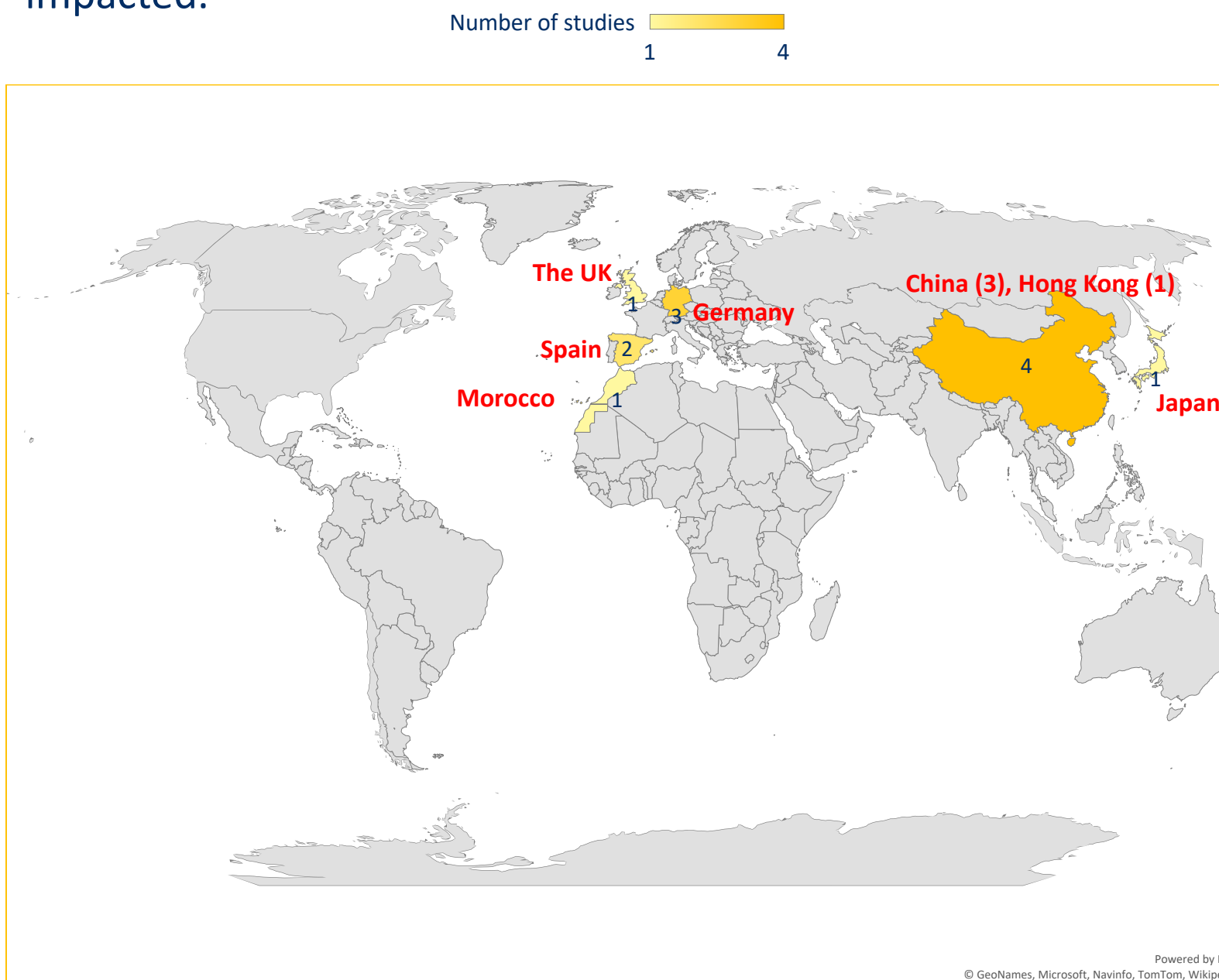


Figure 2. Study site/countries of EQ-5D studies during COVID-19 pandemic

IV CONCLUSIONS

Our results summarized the characteristics of EQ-5D studies in the short period since the start of the COVID-19 pandemic. There is a low number of studies with heterogeneous designs. Lockdowns during COVID-19 pandemic seemed to adversely affect anxiety or depression in the general population. After COVID-19 infection, decreasing EQ-5D index scores reflect the impact of the illness on health-related quality of life and the considerable health burden on the economy.