

Mental health and COVID-19 : a systematic review in youth population

Camille DIEU, Anthony MAUROY, Mandy ROSSIGNOL, Justine GAUGUE
Department of Clinical Psychology, University of Mons (UMONS), Belgium

1. Introduction

On March 11 2020, the World Health Organization (WHO) declared **COVID-19** a global health pandemic^[1]. Numerous studies have assessed the psychological impact of the covid crisis on the population, especially children and young people ^{[2] [3]}.

Objective : To conduct a **systematic review** to determine how different facets of Covid-19 (e.g., social distancing, online learning, fear of Covid-19 infection...) have an impact on **youth mental health**.

2. Method

PRISMA method^[4]

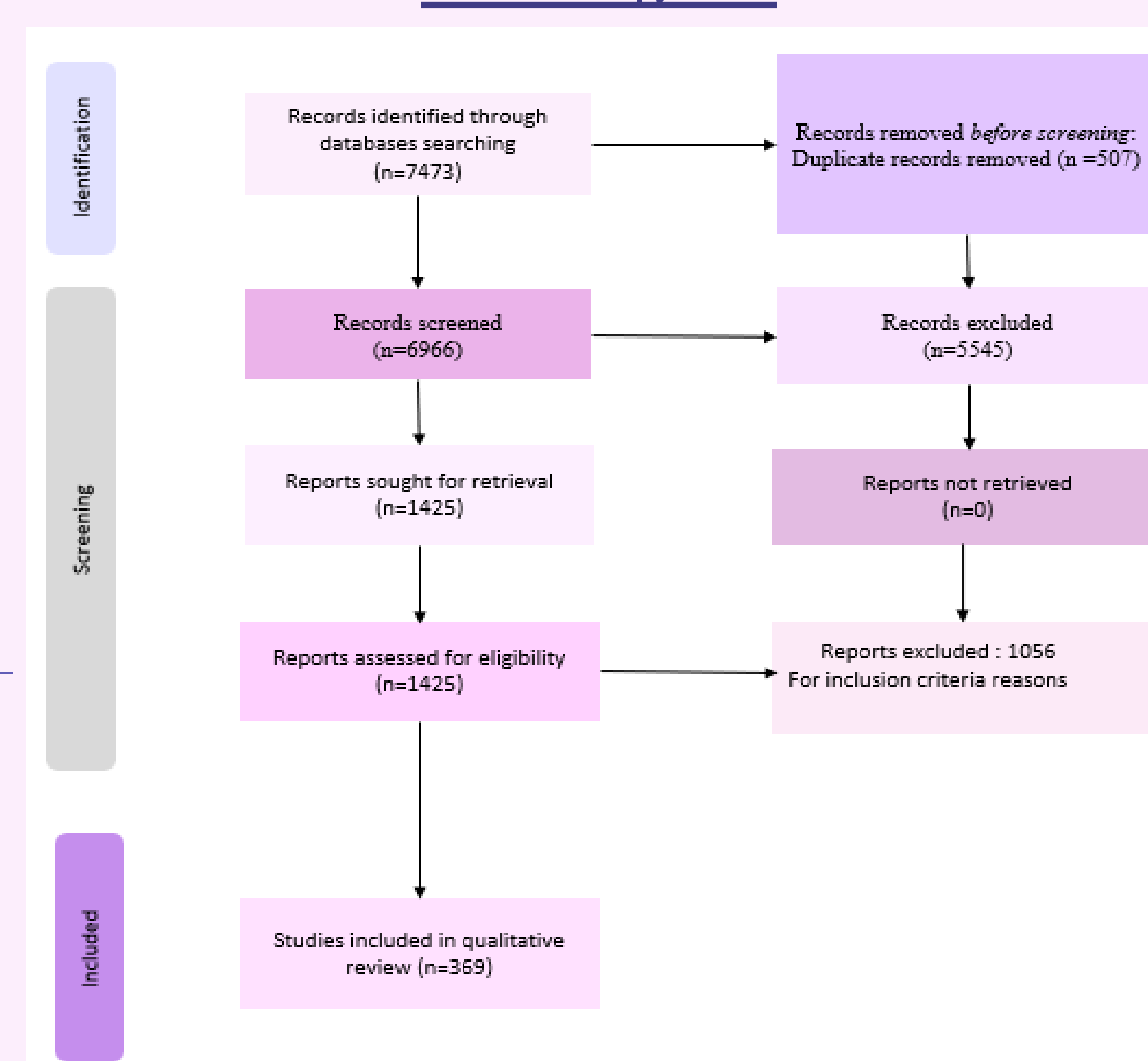
Databases : PsycInfo, PsychArticles, Science Direct, PubMed and Wiley Library

Inclusion criteria :

- Dependant variables : depression, anxiety, stress, PTSD, behavioural symptoms (internalizing and externalizing symptoms) & psychological distress
- Publication after December 2019
- Participants aged 0-25 years
- Original articles or publication in a peer-reviewed scientific journal

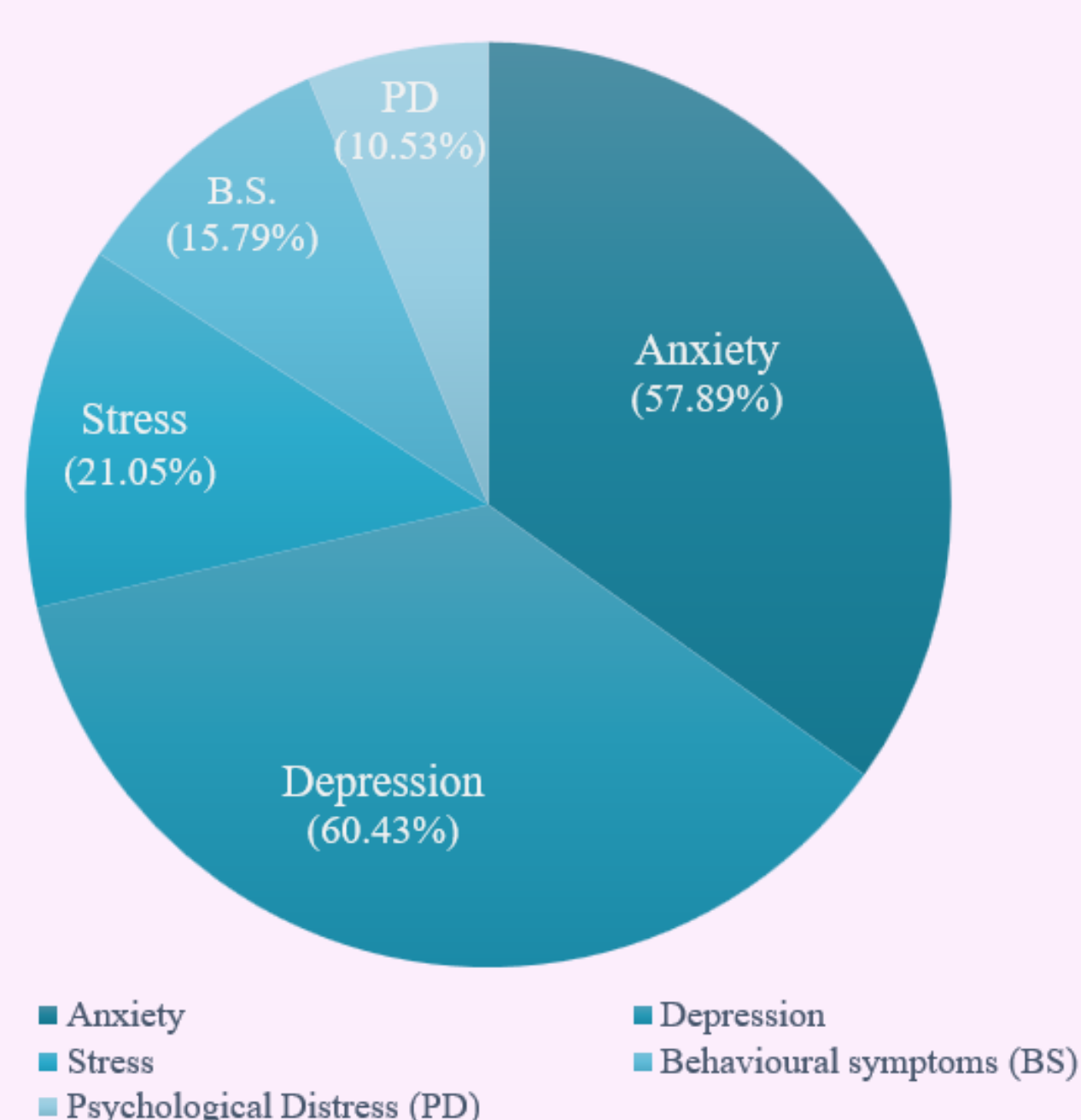
3. Results

3.1 Plot diagram^[4]



3.2 Preliminary results

Percentage of appearance of the dependent variables in studies:



Impact of Covid-19 pandemic on youth mental health by age groups:

N=38 (Total number of articles)	0-5 y (n=16)	5-12 y (n=7)	12-18 y (n=14)	18-25 y (n=13)
Depression (n=23)	+	++	+++	+++
Anxiety (n=22)		+	++	+++
Stress (n=8)	ND	ND	++	
Internalizing symptoms (n=6)	+	+	+++	ND
Externalizing disorders (n=6)	+++	++	++	ND
Psychological Distress (PD) (n=4)	ND	ND	ND	+++
PTSD (n=0)	ND	ND	ND	ND

+ : slight increase , ++ : moderate increase , +++ : high increase, ND : no data

- **Risk factors:** Low socio-economic level, being a student, being a girl, being financially impacted by Covid-19 & having a pre-existing mental disorder^[5]
- **Protective factors:** Establishing family routines & social support^[6]
- **Impact of economical pressure** generated by Covid-19 crisis on anxiety across all ages

- Except for preschoolers, **girls** report more psychological symptoms than boys
- Psychological symptoms appear to be mostly caused by uncertainty about **online assessment methods** in students, **social distancing** in adolescents and **concerns about Covid-19 infection** in school-aged children

4. Discussion

Results to be interpreted with caution :

- **Gender bias:** Higher scores among boys for hetero-reported techniques (preschoolers). Boys tend to "externalize" mental health issues that may be more directly observable whereas girls are more likely to "internalize" emotional symptoms of anxiety and depression^[1].
- **Developmental-age bias:** The results are consistent with the characteristic disorders found at different stages of development. Children develop many externalized symptoms at pre-school age to internalize their difficulties as they grow. Adolescents in particular need of social contact and interpersonal relationship on their development^[7].
- **Prolongation and tracks for the future:** To study the impact of PTSD in this kind of crisis involving insolation
To develop and to provide tools to increase stress resilience in families

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Contact : Camille.dieu@student.uclouvain.be