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Cognitive and Behavioural Therapies

1- 4 June 2023
COEX, Seoul, Korea
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Psychological treatments for the mental health symptoms associated with COVID-19: A preliminary report on a scoping review

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Introduction: Mental health symptoms such as depression, anxiety, and sleep problems are commonly observed in individuals suffering from acute coronavirus disease (COVID-19) infection to post-acute sequelae of covid-19 (PASC). According to a meta-analysis, the pooled prevalence was 45% for those meeting the diagnoses of depression, 47% for anxiety, and 34% for sleep disturbances patients (Deng et al., 2021). This study seeks to provide a synthesis of the published and ongoing research on treatments for the wide range of mental health symptoms associated with COVID-19. This scoping review has been registered with the Open Science Framework

 (https://doi.org/10.17605/OSF.IO/WVR5T).

Methods: This scoping review protocol was developed according to the PRISMA Extension for Scoping Reviews. Systematic searches were carried out on four scientific databases (PubMed, Web of Science, PsycINFO, and Scopus) and four clinical trial registries (ClinicalTrials.gov, WHO ICTRP, EU Clinical Trials Register, and Cochrane Central Register of Controlled Trials) to identify studies that have or will assess the efficacy or any aspects of psychological treatment for acute infection to PASC. The search was conducted on 14 October 2022. Six investigators independently carried out titles and abstract screening, full-text screening, and data charting.

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Results: One hundred eleven studies (45 published results and 66 registered trials and published research protocols) were identified. Seventy-eight studies adopted a randomised controlled study design while others included single-arm, non-randomised, quasi-experimental, and pre-post study designs. Treatments most studied patients with acute COVID-19 infection (81 studies) while a few focused on those who had recovered (n=13) or were suffering from PASC (n=8). Of the identified studies, 79 studies measured anxiety and 63 measured depression symptoms. Others such as trauma and stress (n=37), sleep (n=29), quality of life and functioning (n=34) were also found to be frequently investigated outcomes.

Cognitive and behavioural therapies were the most studied type of interventions (n=33), including cognitive behavioural therapy, acceptance and commitment therapy, compassion-focused therapy, mindfulness-based stress reduction, and progressive-muscle relaxation to name a few. This was followed by multidisciplinary interventions (n=19), mindfulness, meditation, and yoga techniques (excluding those incorporated as cognitive behavioural treatments) (n=17), programs designed for COVID-19 patients drawing from different orientations (n=10), music therapies (n=5), and eye movement desensitisation and reprocessing (n=4). These interventions were often delivered via telehealth (n=39) or in person (n=31), while others were self-administered (n=17) or used a mixture of the three (n=15).

Discussion: This scoping review was the first study to explore the full breadth of the literature on treatments for the ranging mental health symptoms associated with COVID-19 infection, including PASC. The results highlight that research has predominantly focused on the acute phase of the condition. As more recent studies have shown the mental health-related PASC, this finding calls for more emphasis on treatments for this stage of the disease. Additionally, despite being the most studied type of intervention, only a few individual sub-approaches within the family of cognitive and behavioural therapies were investigated in multiple studies due to their diversity. As the infectious virus remains present, interventions that are scalable, effective, and easy to implement in various contexts and regions with limited resources are still in need.

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A preliminary report on a scoping review

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COI disclosure

I declare that there are no conflicts of interest related to this presentation.

So Sugita

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To start off...

Total cumulative cases in the world:

765,222,932

As of May 10th, 2023

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Where we are today

The end to the public health emergency of international concern (PHEIC) was declared last month.

"Yesterday, the emergency committee met for the 15th time and recommended to me that I declare an end to the public health emergency of international concern. I have accepted that advice."

(WHO director Dr Tedros Adhanom Ghebreyesus, 5th May 2023)

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Global burden of mental health problems

Estimations from meta-analyses suggest that...

It is estimated that...
- Additional 53.2M cases of major depression due to COVID-19 (+27.6%).
- The total prevalence was 3153 cases per 100,000 population.

- Additional 76.2M cases of anxiety disorders (+25.6%).
- The total prevalence was 4802 cases per 100,000 population.
(Sartomauro et al, 2021)

Using very simple calculations, this would imply estimations that in Japan,
- 4M new cases of major depression
- 6M new cases of anxiety disorders

Furthermore, healthcare workers and patients are at even greater risk...

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Mental health problems among patients

Estimations from meta-analyses suggest that...

Meta-analytic findings report high pooled prevalence rates among acute COVID-19 patients.
- Depression: 42 to 45%
- Anxiety: 37 to 47%
- Sleep problems: 30 to 34%
(Deng et al, 2021; Krishnamoorthy et al, 2020)

Prevalence rates remain noticeably high at 6-12 months follow-up according to more meta-analytic reports.
- Depression: 12%
- Anxiety: 15%
- Sleep problems: 12%
(Zeng et al, 2023)

Reports of OCD (2%), PTSD (1%) too at 2 weeks-3.5 months follow-up.
(Lopez-Leon et al, 2022)

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Biopsychosocial factors
That relate to mental health problems

Immunological mechanisms

- Elevated levels of pro-inflammatory cytokines leading to neuroinflammation is associated with depression.
- Compromised blood-brain barrier allow greater spread of the inflammation.
- Duration of exposure to stress impacts neuroinflammation.
(Steardo Jr et al, 2020)

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Predictors for distress among COVID-19 patients

- Female gender
- Unemployment
- Poor perceived health status
- Low resilience
- Low frequency of contacts with relatives
- Low social contacts
(Beck et al, 2021)

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Complications from long COVID

- 80% of survivors report at least one symptom
- Fatigue (58%)
- Headache (44%)
- Attention disorder (27%)
- Shortness of breath (24%)
- Joint pain (19%)
(Lopez-Leon et al, 2021)

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Biopsychosocial factors
A bit more about long COVID

More complications

- Reinfection contribute additional risks to physical symptoms of long COVID and to mental health.
- Vaccine does not change this increase in probability.
(Benjamin Bowe et al, 2022)

Complications from long COVID

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What can we do?
What interventions can do as researchers/practitioners of psychological intervention?

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"Calls for actions"
Agenda for psychological intervention research

i. Delivery of healthcare with greater scale, accessibility, inclusiveness, and diversity

- ☐ Telehealth
- ☐ Brief and low-intensity interventions
- ☐ Lay-provider service delivery
- ☐ Prevention and public health

ii. Better research practice

- ☐ More investment for research
- ☐ High-quality RCTs
- ☐ Non-WEIRD sample
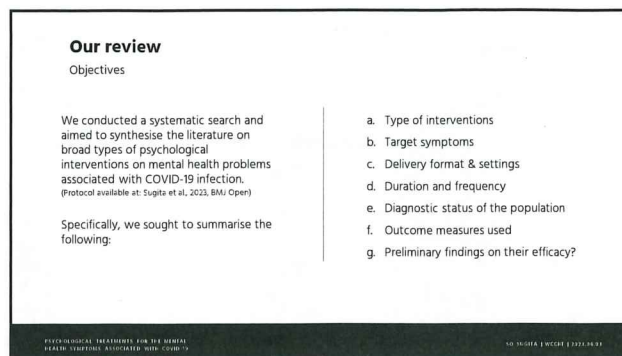- ☐ Research on health inequality

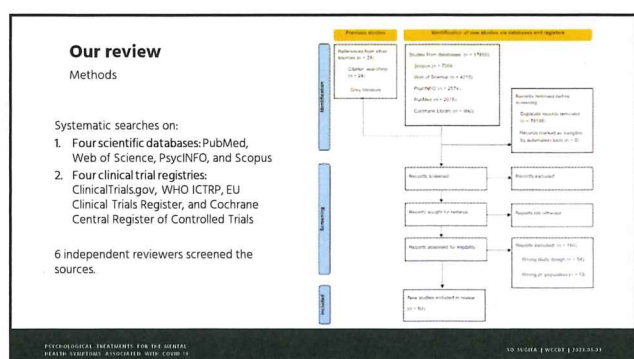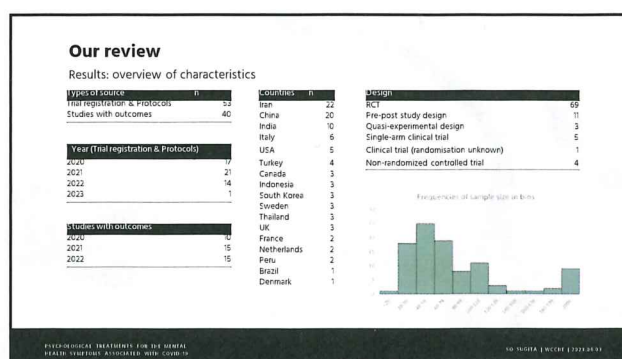PSYCHOLOGICAL TREATMENTS FOR THE MENTAL HEALTH SYMPTOMS ASSOCIATED WITH COVID-19 | SO SUGITA | WCCBT | 2023.06.03

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Our scoping review

Psychological treatments for the mental health symptoms associated with COVID-19

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Our review

Objectives

We conducted a systematic search and aimed to synthesise the literature on broad types of psychological interventions on mental health problems associated with COVID-19 infection.
(Protocol available at: Sugita et al, 2023, BMJ Open)

Specifically, we sought to summarise the following:

a. Type of interventions
b. Target symptoms
c. Delivery format & settings
d. Duration and frequency
e. Diagnostic status of the population
f. Outcome measures used
g. Preliminary findings on their efficacy?

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Our review

Methods

Systematic searches on:
1. Four scientific databases: PubMed, Web of Science, PsycINFO, and Scopus
2. Four clinical trial registries: ClinicalTrials.gov, WHO ICTRP, EU Clinical Trials Register, and Cochrane Central Register of Controlled Trials

6 independent reviewers screened the sources.

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Our review

Results: overview of characteristics

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Canada: 3
U.S.: 6
The Netherlands: 2
U.K.: 6
France: 2
Italy: 6
Sweden: 3
Denmark : 1
Germany: 1
Turkey: 4
Iran: 24
India: 15
South Korea: 3
China: 22
Peru: 2
Brazil : 1
Thailand: 3
Indonesia: 7

Global distribution of identified sources

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Our review

Results: intervention approaches

- Cognitive & Behavioural techniques
- Multidisciplinary program
- Mindfulness/meditation techniques
- Mixed techniques
- Music therapy
- EMDR
- Yoga
- Unknown
- Breathing techniques
- Guided imagery
- Narrative Exposure Therapy
- Psychoeducation
- Aromatherapy

Aromatherapy, 1
Crisis intervention, 1
Psychoeducation, 2
Narrative Exposure Therapy, 2
Guided imagery, 2
Breathing techniques, 2
Unknown, 3
Yoga, 4
EMDR, 4
Music therapy, 5
Mixed techniques, 6
Other, 11
Cognitive & Behavioural techniques, 30
Multidisciplinary program, 20
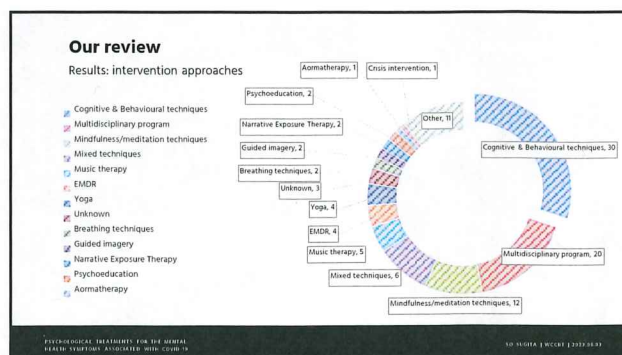Mindfulness/meditation techniques, 12

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Our review

Results: Cognitive and behavioural therapies

Types of CBT	n
Eclectic	9
Cognitive behavioral therapy (CBT)	8
Progressive muscle relaxation (PMR)	5
Mindfulness based stress reduction (MBSR)	4
Acceptance and commitment therapy (ACT)	2
Narrative exposure therapy (NET)	1
Compassion focused therapy (CFT)	1

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Our review

A summary and some discussion

- There is much research on psychological interventions for the mental health symptoms among those infected with COVID-19.
- We would like to particularly applaud those who took early initiative in the 2020.
- These interventions are highly heterogeneous and evidence for each intervention programs remains few.

- Cognitive and behavioural approaches may have advantage due to greater evidence base.
- Many of these approaches has been applied to ranging contexts and problems including other respiratory diseases and chronic conditions.
- We hope to see more RCTs with greater methodological rigour in the future.

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Reflection & Future Perspectives

How well have we responded to this global emergency and where should we be heading?

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"Calls for actions"

Coming back to our agenda

i. Delivery of healthcare with greater scale, accessibility, inclusiveness, and diversity
- ☐ Telehealth .... Many studies on telehealth (46 out of 111)
- ☐ Brief and low-intensity interventions ....
- ☐ Lay-provider service delivery .... None identified
- ☐ Prevention and public health .... n/a

ii. Better research practice
- ☐ More investment for research .... Few trials per intervention types
- ☐ High-quality RCTs .... Not likely
- ☐ Non-WEIRD sample .... Yes
- ☐ Research on health inequality .... None explicitly targeting marginalised group

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Agenda still:

Key points to consider for future research

a. Effective (i.e. research supported)
b. Scalable and accessible
c. Affordable
d. Ease of training
e. Addressing health inequalities

f. Understanding of mechanisms and factors of COVID-19 and mental health problems
g. Prevention efforts in diverse settings

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Key takeaways

- Despite the end of PHIEC, challenges and opportunities for research remains for mental health.
- Many research efforts have been made and are undergoing including intervention research.
- Evidence-based interventions that are effective and can be delivered with greater scale, accessibility, inclusiveness, and diversity is key to healing the global mental health impact caused by COVID-19

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Keep in touch:

If you wish to get notified on the release of our preprint, please send us an email to sajita@takamatsu.jp or use this QR code.

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発表概要報告書

【大会概要】

2023年6月1日から2023年6月4日に韓国のソウルで開催された、10th World Congress of Cognitive and Behavioral Therapies に参加した。今回の大会テーマは "Global CBT Dissemination, Accessibility and New Technology" であった。本大会は3年に1回の大規模なものであったため、多くの大変著名な先生方が集まっており、貴重なワークショップや基調講演に参加することができた。

【発表内容の概要】

"Psychological treatments for the mental health symptoms associated with COVID-19: A preliminary report on a scoping review" という演題で口頭発表を行った。本研究では新型コロナウイルス罹患によって新たに精神症状を呈した者を対象とした様々な心理的介入の研究についてスコーピングレビューを実施した。結果、2022年10月時点で既に93件の論文・臨床試験登録が公開されており、最も研究されている心理社会的介入として認知・行動療法が33%を占めていることが明らかになった。介入は急性期からコロナウイルス罹患後症状まで様々な罹患ステージの患者に対する介入が検討されており、遠隔・対面・セルフヘルプ型など様々な形態での提供や、不安、うつ、不眠など様々なアウトカムに対する効果検証が実施されていることが分った。しかし、質の高い研究は非常に少なかったため、引き続き、それぞれの介入法の安全性と効果の検証も必用であることが示された。

【学会体験記】

口頭発表では15分の発表時間が設けられ、他の関連する研究発表と合わせて "COVID and Mental Health" と題してシンポジウム形式で行われた。世界的には既にパンデミックは終了したという認識が広がっている時期ではあったが、会場には多くの参加者が集まり、このテーマへの関心を確認することができた。また、関連する研究を行っている他の発表者と交流する機会にもなり、論文執筆にも資する非常に有益な議論と考察をすることができた。

本研究は当初ポスター発表として応募していたが、抄録の質を評価していただいた結果、大会事務局より口頭発表として発表することの貴重なお誘いをいただいた。この他にも、ポスター発表1件、自主企画シンポジウムの座長を務めたため、非常に充実した大会となった。

初めての口頭発表となったが、この形式のおかげでポスター発表よりも多くの人と交流し議論を深めることができた。今後もこの大会を通して得たネットワークや知識を活かし、臨床実践や研究における専門性を高めていくことを目指して、引き続き学び続けていきたい。

（日本語 1200字以内）

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