



Facing the New Normal: Adjusting to Easing of COVID-19 Restrictions Exposes Mental Health Inequalities

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RCPsych Eastern Division Autumn Conference
Nov 4^o 2021



EFFECT OF THE PANDEMIC ON PUBLIC MENTAL HEALTH

- COVID-19 pandemic has negatively impacted public mental health in so many different ways (WHO 2020).
- Younger people particularly affected (Manivannan et al., 2021).
- Population-based studies have identified high rates of adjustment reaction to the *onset* of the Covid-19 pandemic (7 to 14 %; McGinty et al., 2020).

Mental-health-considerations, WHO, 2020, URL

<https://www.who.int/docs/default-source/coronaviruse/mental-health-considerations.pdf>.

Manivannan et al., Experimental Biology and Medicine, 2021

McGinty et al., JAMA, 2020

The question that nobody asked is:
“what happens when all of this is over?”

News Release

Study launched to find out **how lockdown lifting** is affecting mental health

A new online study has been launched to find out how the easing of lockdown restrictions is affecting people's mental health. A [recent survey](#) by mental health charity Mind found that the majority of adults and young people with existing mental health problems reported worse mental health during lockdown. However, there hasn't been much research on the impact of lockdown easing and how it is affecting people's mental health.

The study, led by the University of Hertfordshire will assess how people are adjusting to the emergence from lockdown, their fears and changes in behaviours or thoughts. It will initially run for a few weeks, with the aim of developing as an international study.

Naomi Fineberg, Professor of Psychiatry at the University of Hertfordshire said: "We suspect that a substantial number of people may find it hard to adjust to the lifting of lockdown restrictions and that this is linked to their cognitive flexibility. Our previous research shows that cognitive inflexibility is common in some healthy individuals, for example, who describe themselves as 'perfectionists' and in those who have relatives with OCD-related disorders. A greater understanding of these adjustment difficulties and their root causes will pave the way for developing ways to help people cope better"

The team is looking for volunteers to take part in the study. If you are interested, please visit:

[\[https://herts.eu.qualtrics.com/jfe/form/SV_50eareRWhwX9f01\]](https://herts.eu.qualtrics.com/jfe/form/SV_50eareRWhwX9f01).

Background

- March 2020: In response to the emerging pandemic, a global ‘lockdown’ was enforced under strictly regulated conditions.
- July – October 2020: Easing of restrictions in many areas alongside restoration of more normal lifestyles, while in other areas partial lockdown was re-enforced.
- Similar changes continued over the forthcoming months.
- Problems *adjusting to changing conditions* expected to be damaging for wellbeing, societal functioning and prosperity, both at the individual and public health level.
- Patients with OCD expected to find adjustment particularly difficult due to uncertainty, threat reinforcement of routines and safety behaviours, etc. (Benatti et al., Front. Psychiatry, 2020).

Background

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AIMS

To investigate

- How did people adjust to the release of lockdown (Jul – Oct 2020)?
- Extent of difficulties adjusting back to normal lifestyles after lockdown restrictions were lifted.
- Factors among the public predicting poorer adjustment

We were not aware of other work targeting this aspect of the pandemic.

A Priori Hypotheses

- A substantial proportion of the public will experience difficulty adjusting to *lockdown easing*
- Those with anxious, obsessive-compulsive or inflexible tendencies and thinking styles will be most vulnerable to adjustment problems
- Adjustment problems will impact mental health, psychosocial function, wellbeing and healthcare provision.

Ethics Approval and Timelines

- Research ethics approval obtained (University of Hertfordshire, protocol number: aLMS/SF/UH/04219(1)).
- Protocol pre-registered and a priori analyses recorded on 15th July 2020 (Open Science Framework; doi:10.17605/OSF.IO/GS8J2).
- Study ran from 16/07/2020 to 13/10/2020, during which period lockdown conditions had temporarily eased

Participants

- Recruitment took place via personal email and social media contacts through existing networks targeting a broad spectrum of the general population aged ≥ 18 years, within and outside the UK.
- Communities with strong representation of diverse ethnic groups and minorities, students, health workers and those living with anxiety and OCD were targeted.

Now lockdown is easing, are you having trouble adjusting?

Many people are having problems with adjusting to the easing of lockdown restrictions. Researchers at University of Hertfordshire want to learn the reasons why.



WE HOPE THIS FINDS YOU WELL. WE WOULD LIKE TO INVITE YOU TO TAKE PART IN OUR STUDY INVESTIGATING WHY SOME PEOPLE ARE FINDING IT DIFFICULT TO ADJUST TO THE EASING OF PANDEMIC RESTRICTIONS. YOUR PARTICIPATION INVOLVES COMPLETING A BRIEF ONLINE SURVEY WITH QUESTIONS RELATING TO HOW YOU ARE COPING AND YOUR THINKING STYLE. THE RESULTS OF THIS WORK WILL INFORM FURTHER RESEARCH IN THIS AREA AND SUPPORT INTERVENTIONS IN THE FIELD OF MENTAL HEALTH.

THE SURVEY IS OPEN FOR ALL THOSE AGED 18 YEARS AND OVER WHO WOULD LIKE TO PARTICIPATE AND SHOULD TAKE APPROXIMATELY 20 MINUTES TO COMPLETE. ALL RESPONSES FROM THE STUDY WILL BE KEPT CONFIDENTIAL AND ALL INFORMATION YOU PROVIDE WILL BE ANONYMISED SO THAT YOU CANNOT BE IDENTIFIED FROM ANY REPORTS THAT RESULT FROM THE STUDY. AGREEING TO DO THE SURVEY DOES NOT MEAN THAT YOU HAVE TO COMPLETE IT: YOU ARE

2-Phase Design

Phase one (15 minutes survey; Qualtrix software)

- Demographic details
- Lifestyle questionnaire
- Personal history or family history of mental disorders (including OC and related disorders)
- History of having contracted COVID-19 or a family member
- History of bereavement through COVID-related illness

- Post-Pandemic Adjustment Questionnaire (PPAQ) (7 likert-type statements)
- Depression, Anxiety and Stress Scale (DASS-21)(Lovibond & Lovibond, 1995)
- Obsessive-Compulsive Inventory-Revised (OCI-R) (Foa et al., 2002)
- Compulsive Personality Assessment Scale (CPAS) (Fineberg et al., 2015)
- COVID-19 Anxiety Scale (18) (CAS) (Chandu et al., 2020)

Phase two (8 minutes cognitive task)

- Participants **grouped into those A) with, and B) without adjustment difficulties** according to pre-determined criteria on the PPAQ (Item 1 scores)
- Groups A and B invited to participate in the intra-extradimensional (IED) set shift task

Post-pandemic adjustment questionnaire (PPAQ) (Fineberg et al 2021)

1. I am having great difficulty adjusting to the easing of the Covid-19 pandemic restrictions
2. I am finding it harder to manage my fears about COVID now that the Covid-19 pandemic restrictions are easing than I did when the restrictions were fully in force.
3. I am finding it very stressful going out of the house now that the Covid-19 pandemic restrictions are easing.
4. I am thinking too much about contracting or spreading Coronavirus now that the Covid-19 pandemic restrictions are easing.
5. I am thinking too much about other risks to my or others' physical health now that the Covid-19 pandemic restrictions are easing.
6. I am finding it hard to stop physical distancing or avoiding contact with people now that the Covid-19 pandemic restrictions are easing.
7. I am finding it hard to stop disinfecting behaviours (e.g. handwashing, use of sterile wipes, use of gloves, masks, etc.) that are no longer officially recommended now that the Covid-19 pandemic restrictions are easing.

Scoring for each question: completely disagree = 1 to completely agree = 5.

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Poor adjusters = agreed or completely agreed on Item 1

› J Psychiatr Res. 2021 Sep;141:276-286. doi: 10.1016/j.jpsychires.2021.07.001. Epub 2021 Jul 6.

Facing the "new normal": How adjusting to the easing of COVID-19 lockdown restrictions exposes mental health inequalities

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Valentina Giorgetti³, Dorotea Cicconcelli³, Elena Theofanous³, Nick Sireau³, David Adam³,
Samuel R Chamberlain⁴, Keith R Laws³

Affiliations + expand

PMID: 34271458 PMID: PMC7611491 DOI: 10.1016/j.jpsychires.2021.07.001

[Free PMC article](#)

Results

514 Participants: Sociodemographic Factors

Gender:

- Male: 28%
- **Female: 71%**
- Prefer not to say: 1%

Mean age (SD):

37.27±13.87

Ethnicity:

- **White: 85%**
- Mixed: 4 %
- Asian: 5%
- Black: 3%
- Other: 2%
- Prefer not to say: 1%

Occupation:

- **Employed: 54%**
- Unemployed: 10%
- Furloughed: 10%
- Retired: 6%
- Frontline NHS: 6%
- NHS working with COVID patients: 14%

Country:

- **England: 87%**
- Scotland: 4%
- Italy: 6%
- India: 1%
- USA: 1%
- Rest of the World: 1%

Highest Level of Education:

- GCSEs: 3%
- A Level: 10%
- **Bachelor (BSc): 34%**
- **Master (MSc): 33%**
- PhD: 11%
- Other: 9%

Living Status:

- Alone: 15%
- With family of birth: 17%
- With own family: 10%
- **With friends: 46%**
- Other: 11%
- Prefer not to say: 1%

Covid History

Have you or any member of your family contracted COVID-19?

- Yes: 14%
- **No: 75%**
- Unsure: 11%

Has someone close to you died of COVID-19 or a COVID-related illness?

- Yes: 9%
- **No: 91%**

How well have you complied with government guidance during lockdown?

- **Extremely well: 40%**
- **Very well: 42%**
- Moderately well: 13% , Slightly well: 3% , Not well at all: 2%

History of Mental Disorder

Do you have a [history of any mental disorder](#)?

- **Yes: 35%**
- No: 64%
- Prefer not to say: 1%

Does any member of your [family have any history of mental disorder](#)?

- **Yes: 36%**
- No: 56%
- Prefer not to say: 8%

Table 4
Clinical ratings for the total sample (N=514)

	Mean	Standard Deviation
DASS-21 Depression	11.01	5.8
DASS-21 Anxiety	9.21	4.8
DASS-21 Stress	12.1	5.8
DASS-21 Total	32.2	15.7
CPAS	16.1	8.5
OCI-R	35.5	11.7
Covid-19	19.6	5.9

DASS-21: Depression, Anxiety and Stress Scale - 21 Items

CPAS: Compulsive Personality Assessment Scale

OCI-R: Obsessive-Compulsive Inventory - Revised

113 (22%) participants screened +ve for clinically sig. OC symptoms (OCI-R ≥ 21)

- 21% of those with no past history of mental disorder screened +ve on the OCI-R.

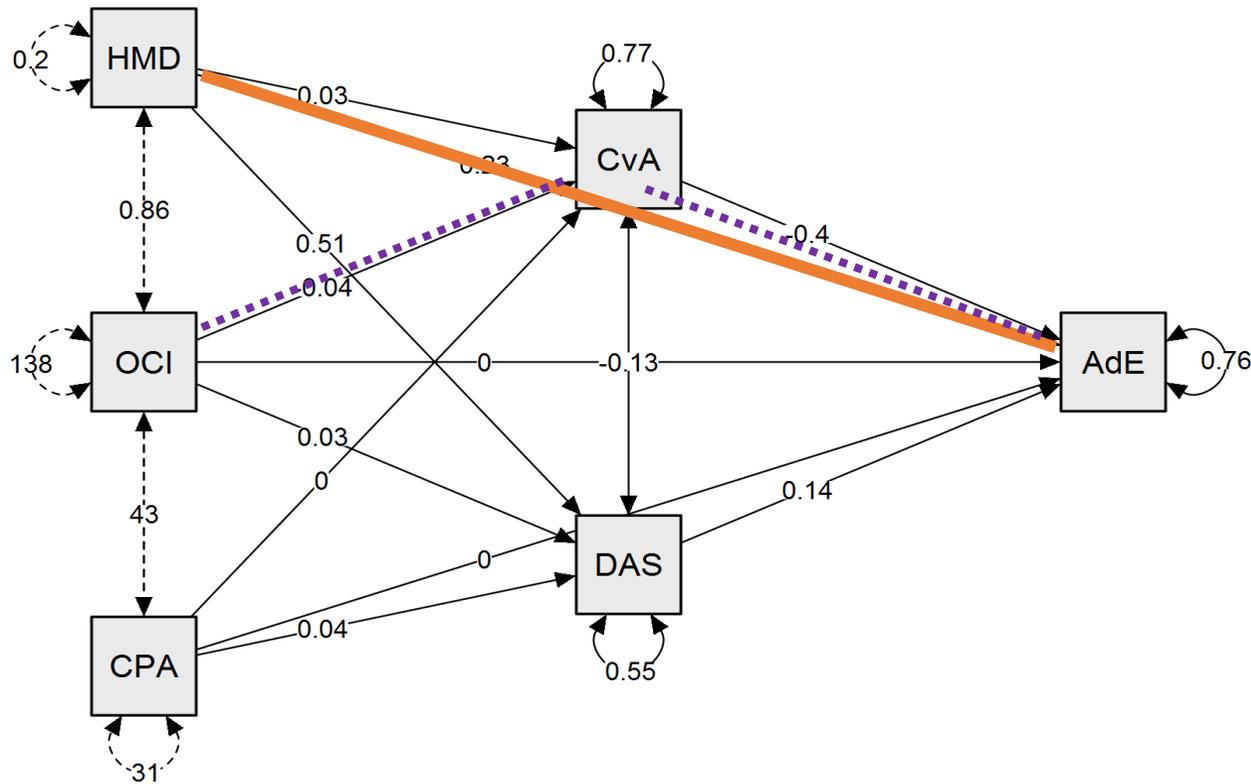
Suggests a substantial incidence of new cases of OCD having developed during the pandemic

Factors affecting Adjustment

- Across the whole sample (N=514), adjustment (sum of all PPAQ item scores) correlated with CPAS (Pearson r : 0.429), OCI-R (Pearson r : 0.354), DASS-21 (Pearson r : 0.466) (all $p < 0.001$).
- 128 (25%) participants were “poor adjusters” on the PPAQ - 231 (30%) were indeterminate and 155 (45%) adjusted well.
- Poor and good adjusters did not differ in age, sex or education level (chi-square and Student’s t test).
- Poor adjusters had a higher incidence of history of mental disorder (both personal and in the family) – $\chi^2=9.242$, $p=0.002$.
- Poor-adjusters had higher scores on Covid Anxiety Scale, DASS -21, CPAS and OCI-R (all $p < 0.001$).

Predictors of categorical adjustment status

Mediation analysis I (poor vs good adjusters)



Risk factors

HMD: History of mental disorder
 CPA: CPAS
 OCI: OCI-R

Mediators

CvA: Covid Anxiety Scale (fear of Covid)
 DAS: DASS-21

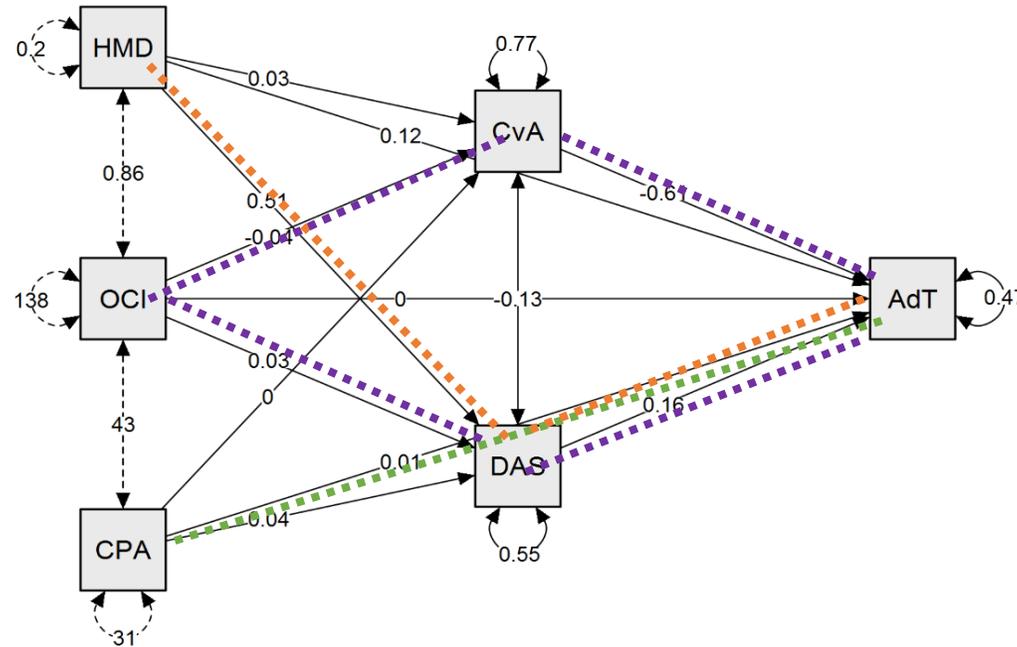
Outcome

AdT: Adjustment

- Mediation model with the extremes of adjustment as the outcome (poor vs good adj).
- **History of mental disorder directly predicted** adjustment status ($p=0.008$).
- **OCI-R indirectly predicted** adjustment via CvA scores ($p=0.001$).

Predictors of adjustment as a dimension

Mediation analysis (II) (adjustment across whole sample)



Risk factors

HMD: History of mental disorder

CPA: CPAS

OCI: OCI-R

Mediators

CvA: Covid Anxiety Scale (fear of Covid)

DAS: DASS-21

Outcome

AdT: Adjustment

- Mediation analysis for the whole sample with adjustment (total PPAQ) as the outcome.
- In this model, none of the variables has a direct effect on adjustment.
- **CPAS, OCI-R and history of mental disorder were all indirect** predictors of adjustment, although with different mediators.

Mediation Analysis Summary

Variables impacting on adjustment

- History of mental disorder represents a direct risk factor for poor adjustment status and predicts general adjustment problems acting via depression anxiety and stress (DASS: z-score: 3.029, $p=0.002$).
- Obsessive-compulsive symptoms (OCI-R) represents an indirect risk factor for poor adjustment status and predicts general adjustment problems acting via both depression, anxiety and stress (DASS: z-score: 3.224, $p=0.001$) *and* Covid anxiety (CAS: z-score: 7.367, $p=.001$).
- Obsessive-compulsive traits (CPAS) predicts general adjustment problems acting via depression, anxiety and stress (DASS: z-score: 2.816, $p=0.005$).

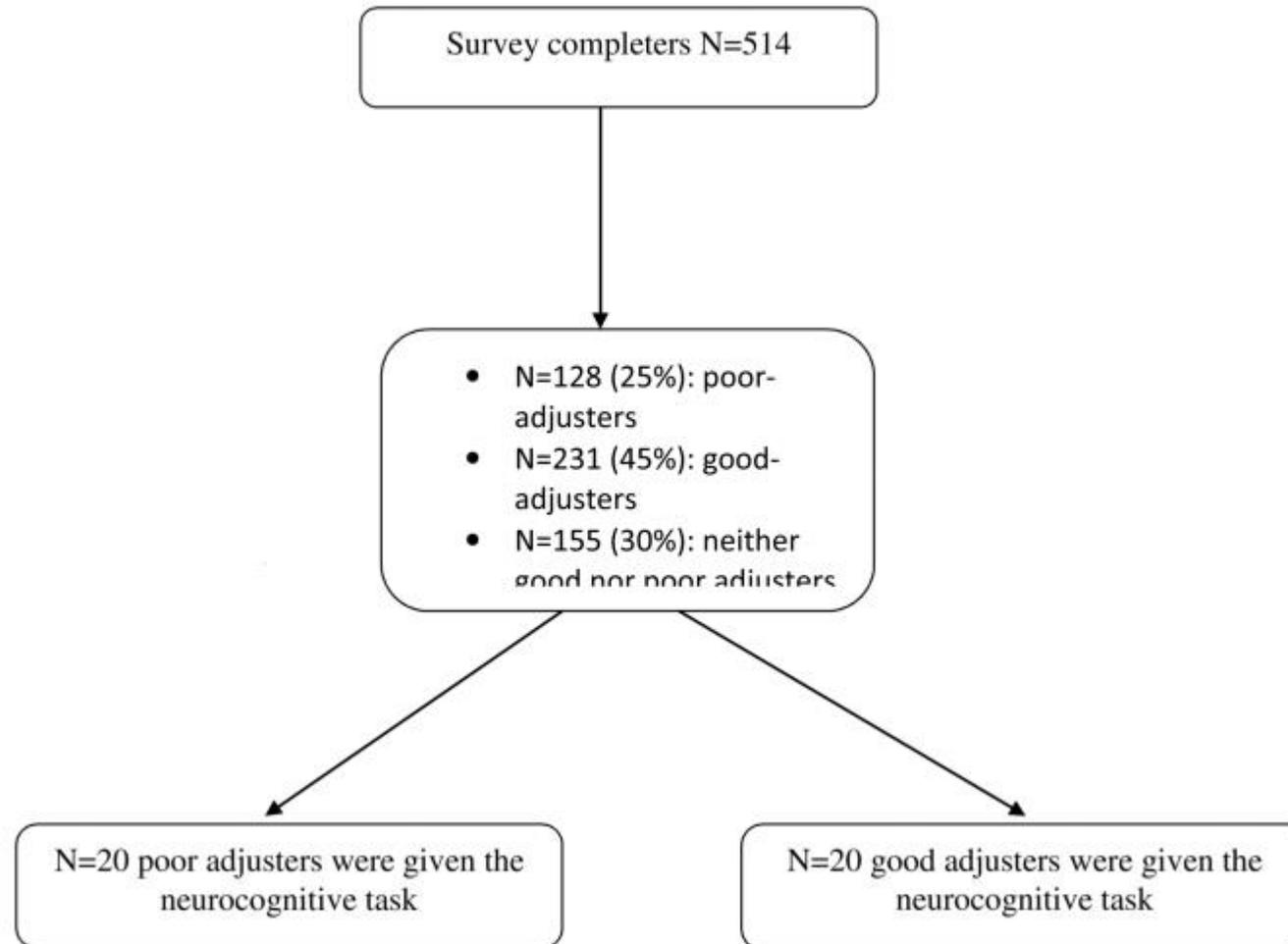


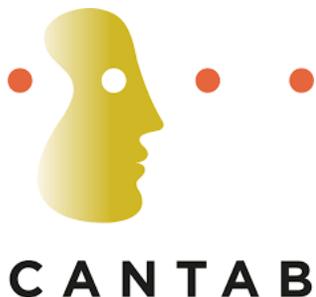
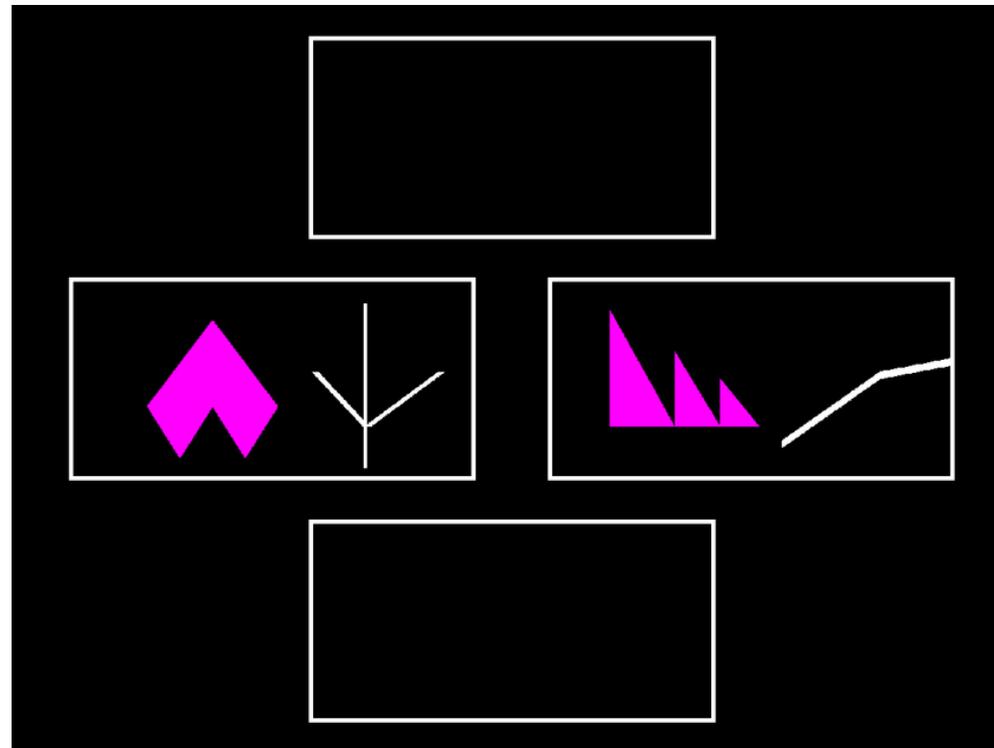
Figure 1. Flow-chart of participants.



ID/ED Set Shifting Task

Cambridge Neuropsychological Test Automated Battery (CANTAB)

<https://www.cambridgecognition.com/cantab/>



CANTAB
is an abbreviation for
Cambridge
Neuropsychological Test
Automated Battery
©
tj. oxfordjournals.com



Exploratory Neurocognitive Assessment

- Invitation to complete the IED was sent to all poor and good adjusters who had given a priori consent (55%).
- **20 participants** in each group responded positively and engaged in the task, resulting in 17 completers in the poor-adjusters group and 18 completers in the good-adjusters group.
- No between-group difference was found in age, sex and level of education.
- Due to the preliminary nature of this analysis, we were most interested in identifying a signal through the **magnitude of the effect-sizes**.

Neurocognitive Findings

- Effect sizes of all individual items of the IED task indicated **poorer cognitive performance in the poor adjustment group**.
- Statistical significance reached on
 - IED Total Trials (number of trials completed on all attempted stages): Cohen's **d = 0.414**, p: 0.030.
 - IED Total Errors (total number of times that the subject chose a wrong stimulus - i.e. one incompatible with the current rule - measuring the subject's efficiency in attempting the test): **d= 0.386**, p: 0.040.
 - IED Total Trials on Stage 9 (number of trials completed on stage 9): **d = 0.792**, p: 0.021).
- IED Stage 9 measures Extra-Dimensional Reversal and is particularly important in measuring **cognitive inflexibility** in OCRDs (Chamberlain et al., Curr Top Behav Neurosci, 2021).

Findings

- A significant proportion (25%) of the public is struggling to readjust following the release of lockdown
- Those with a history of mental disorder are disproportionately affected.
- Whereas mental disorder directly mediated poor post-pandemic adjustment, obsessive-compulsive symptoms and personality traits indirectly mediated adjustment acting via depressive, anxiety and stress symptoms and fear of Covid.
- These factors represent new targets for clinical and public health intervention.
- New cases of OCD have arisen during the pandemic, and such individuals are likely to struggle once lockdown is released.

Which obsessive-compulsive traits predict post-pandemic adjustment

(Fineberg et al; in submission 2021).

General adjustment problems correlated with:

- perfectionism
- preoccupation with details
- over-conscientiousness
- need for control

Social avoidance correlated with:

- perfectionism
- preoccupation with details

Disinfecting behaviors correlated with:

- preoccupation with details
- miserliness

(Pearson's r - all $p < .001$).

None of the adjustment items correlated significantly with self-rated rigidity.

Compulsive Personality Assessment Scale (CPAS)					
Items refer to a stable pattern of enduring traits dating back to adolescence or early adulthood. Use the questions listed as part of a semi-structured interview.					
For each item circle the appropriate score: 0 = absent; 1 = mild; 2 = moderate; 3 = severe; 4 = very severe.					
ITEM	RATING				
1. Preoccupation with details Are you preoccupied with details, rules, lists, order, organisation or schedules to the extent that the major aim of the activity is lost?	0	1	2	3	4
2. Perfectionism Would you describe yourself as a perfectionist who struggles with completing the task at hand?	0	1	2	3	4
3. Workaholism Are you excessively devoted to work to the exclusion of leisure activities and friendships?	0	1	2	3	4
4. Over-conscientiousness Would you describe yourself as over-conscientious and inflexible about matters of morality, ethics or values?	0	1	2	3	4
5. Hoarding Are you unable to discard worn-out or worthless objects even when they have no sentimental value?	0	1	2	3	4
6. Need for control Are you reluctant to delegate tasks or to work with others unless they submit to exactly your way of doing things?	0	1	2	3	4
7. Miserliness Do you see money as something to be hoarded for future catastrophes?	0	1	2	3	4
8. Rigidity Do you think you are rigid or stubborn?	0	1	2	3	4
Total:					

Adapted from: Fineberg NA, Sharma P, Sivakumaran T, Sahakian B. Does obsessive-compulsive personality disorder belong within the obsessive-compulsive spectrum? *CNS Spectr* 2007;12:467-82.

Findings

- Several OCPD traits predicted post-pandemic adjustment difficulties, but **perfectionism and preoccupation-with-details** showed the most robust correlations.
- These traits constitute a platform for the development of **new screening and interventional strategies** aimed at restoring public mental health and wellbeing.
- **Cognitive rigidity may be more reliably evaluated using an objective form of assessment.**



**SOME PEOPLE
ARE SO STUBBORN!
I'LL SHOW THEM!**

Conclusions

- This study raises awareness of the **special needs of people with mental disorders** in tackling the consequences of lockdown release and the risks they will be disadvantaged when the pandemic ends if not proactively addressed.
- **General adjustment difficulties were common**, and accompanied by problematic social avoidance and disinfecting behaviors, which represent specific targets for intervention.
- When normality is re-established, **new clinical interventions and services** will be needed to **support people with a history of mental illness**, and in particular those with obsessive compulsive symptoms and traits, to help them adjust to the 'new normal'.
- From a **public or occupational health perspective**, individuals with rigid thinking styles, detail-focused or perfectionist traits and obsessive-compulsive symptoms may also require identification and support.

International Equally Well Alliance

Global Call to Action

Fair and equitable access to vaccination for people living with mental illness and substance use disorders

Vaccinations against infectious diseases such as influenza, hepatitis, tuberculosis, and COVID-19 save lives and prevent hospital admissions. Yet around the world, people living with mental illness and substance use disorders are not routinely prioritised or targeted for vaccinations against these serious yet preventable illnesses. This is unjust and results in countless vaccine preventable hospitalisations and deaths.

Released 27/102021

Future directions

- To replicate and confirm our preliminary findings:
- Preregistration on Open Science Framework (OSF) and ethics approval from University of Hertfordshire
- Please help us by completing the new survey!

<https://research.sc/participant/login/dynamic/912BD473-D262-4654-ACFD-74801AD4E21C>



Hertfordshire Partnership 
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Hertfordshire **UH**

**Thank you for your
attention!**

