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LETTER TO THE EDITOR

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Anticipating PTSD in severe COVID survivors: the case for screen-and-treat

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ABSTRACT

Based on research from previous pandemics, studies of critical care survivors, and emerging COVID-19 data, we estimate that up to 30% of survivors of severe COVID will develop PTSD. PTSD is frequently undetected across primary and secondary care settings and the psychological needs of survivors may be overshadowed by a focus on physical recovery. Delayed PTSD diagnosis is associated with poor outcomes. There is a clear case for survivors of severe COVID to be systematically screened for PTSD, and those that develop PTSD should receive timely access to evidence-based treatment for PTSD and other mental health problems by multidisciplinary teams.

Anticipando el TEPT en los sobrevivientes de COVID severo: El caso para detección y tratamiento

Basados en la investigación de pandemias previas, los estudios de los sobrevivientes a cuidados críticos, y los datos emergentes de COVID-19, estimamos que hasta un 30% de los sobrevivientes del COVID grave desarrollarán TEPT. El TEPT es frecuentemente subdetectado en los servicios de salud primarios y secundarios y las necesidades psicológicas de los sobrevivientes puede verse eclipsadas por un enfoque en la recuperación física. El diagnóstico tardío de TEPT se asocia con pobres resultados. Existe un caso claro para que los sobrevivientes del COVID grave sean evaluados sistemáticamente para detectar el TEPT, y aquellos que desarrollan un TEPT deben tener acceso oportuno a tratamientos basados en la evidencia para el TEPT y para otros problemas de salud mental por equipos multidisciplinarios.

预测重症 COVID 幸存者的 PTSD: 筛查和治疗的案例

根据先前对疫情, 重症监护幸存者的研究和新兴的 COVID-19 数据, 我们估计多达 30% 的重症 COVID 幸存者将发展出 PTSD。PTSD 经常不会被初级和二级医疗机构发现, 幸存者的心理需求可能会被对身体康复的关注所掩盖。延迟的 PTSD 诊断与不良结果相关。有一个明确的案例, 重症 COVID 幸存者需要系统性地接受 PTSD 筛查, 那些发展出 PTSD 的人应该能够及时获得多学科团队针对 PTSD 和其他心理健康问题的循证治疗。

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HIGHLIGHTS

- We anticipate that up to 30% of survivors of severe COVID will develop PTSD, yet PTSD is frequently undetected in primary and secondary care settings.
- There is, therefore, a clear case for establishing systematic screening and ensuring timely access to treatment.

1. Introduction

The coronavirus pandemic continues to have profound deleterious effects on public mental health (Javakhishvili et al., 2020; Pfefferbaum & North, 2020). Here we focus on how to meet the needs of survivors of severe COVID who are at especially high risk of post-traumatic stress disorder (PTSD). Severe COVID illness is life-threatening and its clinical management can be highly invasive and frightening

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(Rogers et al., 2020). Surviving severe COVID therefore fulfils internationally-recognized definitions of exposure to psychological trauma and is thus a risk factor for PTSD (Bisson, Cosgrove, Lewis, & Roberts, 2015; World Health Organization, 2018). Here we describe an emerging strategy of 'screen-and-treat' programmes for PTSD after severe COVID – which involve coordinated proactive outreach, assessment, and treatment. These programmes have been implemented after various kinds of major incidents such as terrorist attacks, and are designed to systematically screen and provide evidence-based treatment to those who need it. We argue that there is a critical and immediate need to integrate PTSD screen-and-treat into the follow-up care of patients recovering from severe COVID, including those survivors with long COVID.

2. PTSD

PTSD is a potentially debilitating disorder that can develop after exposure to exceptionally threatening events. PTSD is associated with high rates of comorbidity of mental and physical illness (APA, 2013). The core symptoms of PTSD include intrusive memories of the trauma, avoidance of trauma-related stimuli, negative alterations in cognitions and mood, and a persistent sense of threat and hyperarousal (Bisson et al., 2015; World Health Organization, 2018). PTSD is a treatable condition using evidence-based interventions including psychotherapies such as trauma-focused cognitive therapy and eye movement desensitization and reprocessing (EMDR) (APA, 2013). There is also an evidence base for pharmacological treatments (Cipriani et al., 2018).

Yet in routine clinical practice, PTSD is underdiagnosed (Greene, Neria, & Gross, 2016), even in specialist psychiatric settings (Zammit et al., 2018). Delayed diagnosis of PTSD is associated with poorer clinical outcomes and comorbidity (Priebe et al., 2009). It is therefore essential that services are planned in such a way to overcome these barriers to diagnosis.

3. Severe COVID is a risk factor for PTSD

Several lines of evidence indicate that severe COVID illness is a risk factor for PTSD. Research with survivors of past coronavirus disease outbreaks, including Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS), found that PTSD rates were high following hospital discharge, and remained elevated for months or even years (Salehi et al., 2021). A recent study of 381 survivors of severe COVID found that 30.2% were diagnosed with PTSD (Janiri et al., 2021). Another study found that hospitalized COVID patients were likewise at increased risk of PTSD (Chamberlain, Grant, Trender, Hellyer, & Hampshire, 2021). PTSD symptoms were highest among those who had been ventilated; 35% of those who had been ventilated endorsed all ten of the PTSD symptoms measured in the study. We also know from research prior to COVID that around 20%-25% of people discharged from critical care report symptoms of PTSD (Parker et al., 2015).

There are particular aspects of the experience of critically ill COVID patients that are likely to increase the risk of traumatization and therefore PTSD (Kaseda & Levine, 2020). These biopsychosocial risk factors are related directly to the impact of the illness, as well as to aspects of its treatment, and the context within which these occur. High rates of delirium have been reported among COVID patients due to infection, sedation, and the clinical environment (Kaseda & Levine, 2020). Delirium is often associated with terrifying experiences including hallucinations and delusions, and these experiences can be psychologically traumatic in themselves (Wade et al., 2015). Furthermore, the breathing difficulties commonly experienced by patients with COVID are particularly horrific and have been described by patients as the prolonged sensation of drowning (Ferguson et al., 2020). In addition, COVID patients are sedated more deeply and ventilated for longer than typical for critical care treatment (Ferguson et al., 2020), which is associated with a further elevation in risk of PTSD beyond that already observed in critical care patients.

Multiple additional factors are likely to exacerbate psychological distress among COVID survivors during their acute illness, including witnessing the deaths of other patients, isolation from loved ones, and the use of personal protective equipment by staff which may interfere with normal communication and can feel impersonal. In addition, following discharge from hospital, the normal recovery process from a psychologically traumatic event may be impaired by a range of factors associated with the pandemic. COVID survivors may experience continued isolation from loved ones and their other usual sources of support due to community infection control measures and ongoing social restrictions. Survivors may have been bereaved by COVID or have family members who are also seriously ill. Many survivors recover slowly and continue to suffer longer-term physical effects of their illness for many months. All of this takes place within the wider social, political and economic context of uncertainty, restrictions and physical distancing, which will exacerbate psychological distress, further contributing to a sense of ongoing threat and therefore impaired recovery.

Taken together, there a coherent body of evidence that severe COVID increases the risk of PTSD. Based on literature from previous pandemics, studies of critical care survivors, and emerging COVID-19 studies, we estimate that up to 30% of survivors of severe COVID-19 will develop PTSD. These rates are similar to survivors of mass casualty events such as transport disasters and terrorist attacks. While definitive epidemiological

evidence will take time to arrive, we cannot wait for this to begin planning for the assessment and treatment of these patients as there is already urgent clinical need right now.

4. Challenges in detecting PTSD

The COVID pandemic is a mass casualty incident. Previous experience with mass casualty incidents internationally tells us that PTSD in survivors is frequently not detected through conventional routes such as primary care or hospital outpatient clinics (Allsopp et al., 2019; Pfefferbaum, North, Flynn, Norris, & DeMartino, 2002). This is likely the result of multiple causes. First, mental health was not a part of most countries' official pandemic planning (Brewin, DePierro, Pirard, Vasquez, & Williams, 2020). Second, psychological needs can be overshadowed by a focus on physical recovery. In many cases primary care and general hospital healthcare staff lack the time and/or experience necessary to detect PTSD. Third, individuals often do not know how to recognize and seek help for psychological difficulties. Fourth, there is wide local variation in the provision of hospital-based critical care follow-up clinics, and in the survivor's ability to access support even when it does exist. Together, this highlights the need for urgent detection of PTSD beyond routine care through new, dedicated clinical pathways.

5. Assessing and monitoring symptoms of PTSD

The deployment of COVID-PTSD screen-and-treat programmes offers a solution to these challenges. The purposes of a COVID-PTSD screen-and-treat programme are to proactively identify, follow-up, and treat survivors following hospital admission in tandem with multidisciplinary clinics. We previously provided guidance on screen-and-treat programmes for PTSD for survivors of severe COVID illness (El-Leithy et al., 2020). Our guidance draws upon a body of research evidence and clinical guidelines derived from previous epidemics, mass casualty events, and critical care settings.

There are strategies to reduce the risk of PTSD in critical care settings (Tingey, Bentley, & Hosey, 2020), but here we focus on the detection and follow up of these patients after the acute phase of the COVID illness. We propose that brief psychological tools (i.e. validated questionnaires) are administered to COVID survivors prior to discharge from acute hospitals and again four weeks after discharge to identify possible emerging mental health needs (see Figure 1) . The brief assessment at four weeks must include a screening instrument for PTSD, such as the trauma screening questionnaire (Brewin et al., 2002). Comprehensive assessments for PTSD should then be carried out when people score above clinical thresholds on those screening tools. Advice and repeated follow-up for 12 months following discharge should be offered to people scoring below threshold to actively monitor the trajectory of their recovery and to ensure that cases of delayed onset PTSD are not missed.

6. Overcoming barriers to accessing treatment

Critically, following appropriate screening and identification of PTSD, there is a clinical and ethical imperative to provide access to evidence-based treatment in a timely manner. Yet in many healthcare systems, even in routine times, PTSD treatment provision is inadequate at best and woeful at worst. Therefore, funding should immediately be made available across health systems to urgently enable the assessment and increased capacity for treatment of PTSD in survivors of severe COVID. It is essential that these programmes are coordinated with existing specialist psychological trauma services in secondary and tertiary care that have the appropriate expertise along the spectrum of clinical severity and complexity.

The international experience from other mass casualty events shows that PTSD screen-and treat programmes are associated with improved clinical outcomes (Brewin et al., 2010; French et al., 2019; Gobin et al., 2018; Gouweloos-Trines et al., 2019). Given the potential complexity and comorbidities associated with severe COVID illness, these teams should manage PTSD as part of an integrated framework. These programmes can run alongside hospital rehabilitation and are best delivered by dedicated multidisciplinary teams with PTSD expertise, including with input from specialist psychological trauma services where available.

Severe COVID illness disproportionately affects black, ethnic minority, elderly and other disadvantaged groups. Therefore, any effective mental health response will need to be proactive in identifying, engaging with, and adapting to the specific needs of those communities most affected by COVID, in order to ensure equality of access to assessment and treatment. This adds further weight to the argument for COVID-specific PTSD assessment and treatment programmes, which will have the capability to systematically monitor outcomes and inform future responses.

7. Conclusion

There is no health without mental health. Developing local, regional, and national programmes for severe COVID survivors places their mental health needs on an equal footing to those from other mass casualty events, such as terrorist incidents. We anticipate that up to 30% of survivors of severe COVID illness will develop PTSD. Given the high prevalence of COVID across the globe, it likely that millions of people will develop PTSD as a direct result of the pandemic. PTSD is often undetected and

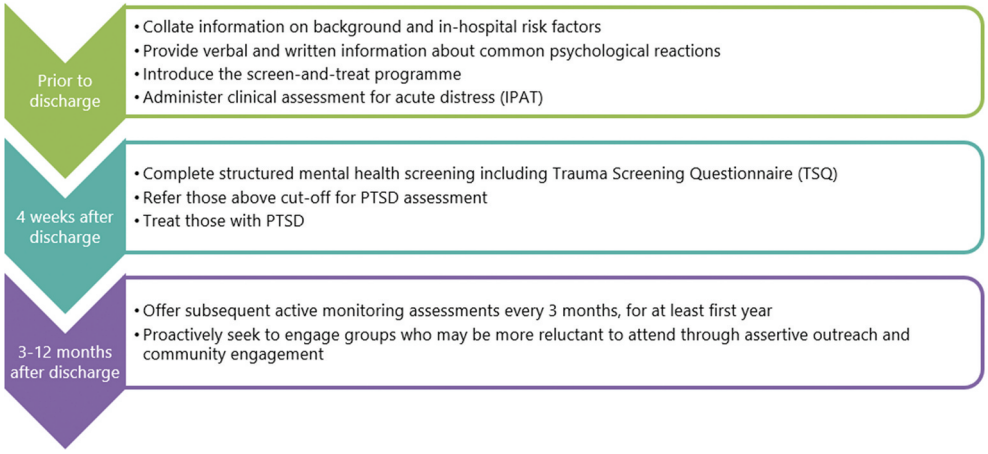

Figure 1. Screen-and-treat process.

untreated resulting in suffering and premature death for patients. This is especially the case when healthcare systems are over-stretched and when the focus is on the recovery from a 'physical' rather than 'mental' illness. Therefore, it is critical to anticipate and meet this projected need. Screen-and-treat programmes are known to be feasible, acceptable and currently have the most support. There is a thus a clear case for survivors of severe COVID to be systematically screened for PTSD, and those that develop PTSD should receive timely access to evidence-based treatment.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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