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**COVID-19 survivors: Multi-disciplinary efforts in psychiatry and medical humanities for long-term realignment**

Löffler-Stastka *et al.* COVID-19 sequelae

Henriette Löffler-Stastka, Monika Pietrzak-Franger

**Henriette Löffler-Stastka,** Department of Psychoanalysis and Psychotherapy, Medical University Vienna, Vienna 1090, Austria

**Monika Pietrzak-Franger,** Department of English and American Studies, University Vienna, Vienna 1090, Austria

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**Corresponding author: Henriette Löffler-Stastka, MD, Dean, Director, Professor,** Department of Psychoanalysis and Psychotherapy, Medical University Vienna, Waehringer Guertel 18-20, Vienna 1090, Austria. henriette.loeffler-stastka@meduniwien.ac.at

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**Abstract**

The coronavirus disease 2019 pandemic represents an enduring transformation in health care and education with the advancement of smart universities, telehealth, adaptive research protocols, personalized medicine, and self-controlled or artificial intelligence-controlled learning. These changes, of course, also cover mental health and long-term realignment of coronavirus disease 2019 survivors. Fatigue or anxiety, as the most prominent psychiatric “long coronavirus disease 2019” symptoms, need a theory-based and empirically-sound procedure that would help us grasp the complexity of the condition in research and treatment. Considering the systemic character of the condition, such strategies have to take the whole individual and their sociocultural context into consideration. Still, at the moment, attempts to build an integrative framework for providing meaning and understanding for the patients of how to cope with anxiety when they are confronted with empirically reduced parameters (*e.g.*, severe acute respiratory syndrome coronavirus type 2) or biomarkers (*e.g.*, the FK506 binding protein 5) are rare. In this context, multidisciplinary efforts are necessary. We therefore join in a plea for an establishment of ‘translational medical humanities’ that would allow a more straightforward intervention of humanities (*e.g.*, the importance of the therapist variable, continuity, the social environment, *etc*) into the disciplinary, medial, political, and popular cultural debates around health, health-care provision, research (*e.g.*, computer scientists for simulation studies), and wellbeing.

**Key Words:** Long COVID; Resilience; Multi-disciplinarity; Medical Humanities; Psychiatric sequelae

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**Core Tip:** Recovery from coronavirus disease 2019 demands that multidisciplinary efforts be brought together to inquire, assess, and learn from various strategies of resilience we have witnessed in this context. Extant studies into individual, communal, and social-environmental aspects of (multisystemic) resilience can thus be expanded and validated; in effect, novel interventions may ensue.

**TO THE EDITOR**

We read with interest the narrative review by Putri C *et al*[1], who presented various biological factors contributing to psychiatric sequelae of coronavirus disease 2019 (COVID-19). We agree with the authors’ insights concerning both the screening and the prevention of the COVID-19 psychiatric sequelae. They suggested such measures as music therapy, strengthening of social support, and self-management to foster resilience in long-COVID-19 patients. As a complement to this perspective, we would propose (following Wolf and Erdos[2]), a multidisciplinary patient-oriented approach that is directed towards a better (e-Health) infrastructure (including a precise, reliable data-protection-conform privacy framework[3]), investment in (digital) media literacy, and an emphasis on transcultural competence in doctor-patient communication.

The COVID-19 pandemic represents an enduring transformation in health care and education with the advancement of smart universities, telehealth, adaptive research protocols, personalized medicine, self-controlled or artificial intelligence-controlled learning, and flexible approaches to achieve solutions. But attempts to build an integrative framework for providing meaning and understanding for the patient when he or she is confronted with empirically reduced parameters or biomarkers are rare and are lacking in Putri *et al*[1]. A parallel development has spotlighted the role of multidisciplinary efforts, such as Medical/Health Humanities, in the understanding, learning, and overcoming the (psychological) effects of the pandemic. Kirsten Ostherr[4] has called for the establishment of ‘translational medical humanities’ that would allow a more straightforward intervention of humanities scholars into the disciplinary, medial, political, and popular-cultural debates around health, health-care provision, and wellbeing.

Understanding the factors contributing to resilience is key when designing interventions to support the improvement or development of resilience. Meta-analyses have shown that in longitudinal studies investigating protective factors in children exposed to traumata, the most robust factors were self-regulation, self-efficacy, and socioenvironmental support (supportive communities, family, peers, school). Investigations on resilience vis-à-vis adversary events show that mutual support and sharing capacity are based on social capital as a buffer to deal with poverty and vulnerability. However, when shocks are systemic or last longer, these traditional coping mechanisms fail, especially in households with low incomes or human resources. On an individual level, features associated with personality functioning have been shown to be very relevant. In medical doctors the personality traits associated with better resilience and well-being are maturity, taking responsibility, optimism, perseveration, and cooperation[5,6]. Hartmann’s theory of different boundary types gives a way of understanding individual differences in terms of thick or thin boundaries (boundaries between inner and outer experience, past and present, and so on). Boundaries are necessary for well-being; what is even more important is an efficient management of these boundaries (self-regulation, self-awareness) dependent on the context and situation (responsibility of setting, maintaining professional boundaries). Acceptance of boundaries relies on a contented, sound development and is linked to psychic maturity with the establishment of a supporting balanced and trusting super-ego function. Epistemic trust[7] is established in early childhood together with secure attachment; shared knowledge is valued as “trustable.” However, in cases of early adversity, credulity and mistrust may develop, with associations of insecure attachment, deficits in mentalizing, affect-, and self-regulation, unstable relationships, and poor resilience.

In order to establish resilience, in the psychiatric-psychotherapeutic relationship, empathy and adequate management of this relationship including authentic acknowledgement of biographically important relationship experiences are important for the outcome on an individual and group level. Further, clinicians’ therapeutic attitudes affect regulation capacities and socialization correlated with relationship factors and therefore with the effectiveness of treatment[8]. Resilience depends on affect regulation abilities; resilient individuals recover from negative experiences by buffering against stress and distressing triggers with positive emotions (positive reappraisal, giving positive meaning, problem-focused coping, and so on). The pandemic has led to a variety of foundational transformations in the very definition of mental health and mental disorder with a significant shift towards more liberal understandings of values implicated under COVID 19 (*e.g.*, values comprising coherence and quality of life). Social and environmental conditions[5] have to be taken into consideration in order to inquire into an individual’s resilience, recovery, and containment possibilities. Putting the subject(ive)[9] more into the forth in the form of public-patient-involvement research designs and in the interdependence with the mentioned surrounding is of particular importance in understanding (psycho)pathoplastic dynamics. An integration of intrapersonal, interpersonal, and person-environmental dimensions of resilience on a personal, communal, and social-environmental level will lead to a more systemic approach doing justice to the dynamics of interactions with the outer world[10].

Consequently, as a way of establishing epistemic trust, it is necessary to focus on training programs for individuals and their microsystems. Interventions will have to be directed to the exo- and macrosystem and to formal and informal structures containing or indirectly influencing the target group (*e.g.*, people with mental health problems). Psychiatry has a long tradition in this field[11]. Instruments with known social impact like education and culture (music, art, poetry) should be applied based on the existing knowledge concerning the processes and contexts of resilience and individual and communal adaptability.

Against this backdrop, it is of importance to include Medical/Health Humanities in the discussion on resilience. With their “interdisciplinary, inclusive, applied, democratizing, and activist approach … in informing and transforming health care, health, and well-being”[12], Medical/Health Humanities have gone far beyond the concern with training medical practitioners by using arts and humanities. Instead, their proponents have asserted the complicated and not always linear or one-directional (expert – public) models of such application and have stressed the importance of bringing “the public to therapeutic uses of the arts and humanities”[12]. With these goals in mind, Medical/Health Humanities strive to emphasize “co-design, co-creativity, and co-learning”[12]. In view of these developments and vis-à-vis recent trends in Humanities, current tendencies in Medical/Health Humanities encompass a series of thematic, theoretical, and methodological innovations, all of which have received even a greater impetus from the pandemic. In this context, extant research into pandemic narratives, blame allocation strategies, discriminatory discourse, and resultant exacerbation of inequalities is central to future interventions.

Combining such multi- and transdisciplinary efforts is also helpful in a critical rethinking both of the positive (and negative) sides of the resilience in its individual, communal, and social-environmental levels as well as in tracing their dependencies with suggesting practical interventions.

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**Footnotes**

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