

Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

answered at present, but the answer is unlikely to be positive. With such a large range of people eligible to refer patients, it is easy to envisage unforeseen problems being presented that go far beyond the abilities of a single link worker to solve. There is little in the social prescribing guidance about the necessary skills and training for link workers; the only common requirement is that they should have extensive local knowledge.

Third, what back-up is available for social prescribers? At present, there is a good internal network proposed for social-prescribing link workers, with regular meetings, supervision from more senior staff, and informative events with outside speakers. But is this enough, particularly when there is going to be no filter on referrals, and there is likely to be an increase in the number of severe problems referred. The amount of feedback between link workers and referrers also needs to be tightened up, because at some point the volume of referrals will have to be constrained.

So much needs to be done before social prescribing can be embraced with confidence in mental health. Meeting this need could be aided by greater contact with psychiatric professionals, who have already introduced environmental interventions for more serious mental illness.⁸⁻¹⁰ These interventions could have relevance not only for mental illness, but also for

social care, especially at a time when effective low-cost interventions are sorely needed.

PT is the Chairperson and JB is a Trustee of NIDUS-UK, a charity that helps to promote environmental changes in persistent mental illness but which does not do social prescribing.

*Peter Tyrer, Jed Boardman p.tyrer@imperial.ac.uk

Department of Brain Sciences, Faculty of Medicine, Imperial College London, London W12 ONN, UK (PT); and Institute of Psychiatry, Psychology & Neuroscience, London, UK (JB)

- 1 UK Department of Health and Social Care. Social prescribing: new national academy set up. Oct 23, 2019. https://www.gov.uk/government/news/ social-prescribing-new-national-academy-set-up (accessed March 1, 2020).
- 2 Bickerdike L, Booth A, Wilson PM, Farley K, Wright K. Social prescribing: less rhetoric and more reality. A systematic review of the evidence. BMJ Open 2017; 7: e013384.
- 3 Pescheny JV, Pappas Y, Randhawa G. Facilitators and barriers of implementing and delivering social prescribing services: a systematic review. BMC Health Serv Res 2018; 18: 86.
- 4 Drinkwater C, Wildman J, Moffatt S. Social prescribing. BMJ 2019; **364:** l1285.
- 5 Moffatt S, Steer M, Lawson S, Penn L, O'Brien N. Link worker social prescribing to improve health and well-being for people with long-term conditions: qualitative study of service user perceptions. *BMJ Open* 2017; 7: e015203.
- 6 Noblet T, Marriott J, Graham-Clarke E, Shirley D, Rushton A. Clinical and cost-effectiveness of non-medical prescribing: a systematic review of randomised controlled trials. PLoS One 2018; 13: e0193286.
- 7 Craddock N, Antebi D, Attenburrow MJ, et al. Wake-up call for British psychiatry. Br J Psychiatry 2008; 193: 6–9.
- 8 Langford A. Growing Better Lives: peace, quiet, and yurts. Lancet Psychiatry 2015; 2: 685–86.
- 9 Haigh R. Therapeutic communities enter the world of evidence-based practice. Br J Psychiatry 2017; 210: 313–14
- 10 Ranger M, Tyrer P, Milošeska K, et al. Cost-effectiveness of nidotherapy for comorbid personality disorder and severe mental illness: randomized controlled trial. Epidemiol Psichiatr Soc 2009; 18: 128–36.



From attachment to mental health and back



Over the past 70 years, attachment theory and associated research have documented the crucial role of continuity of care and stable caregivers to serve as attachment figures, and this has had a major effect on public mental health policy. Attachment theory has the potential to provide mental health clinicians with a rich model for understanding the development of early human relationships, but availability and applicability of diagnostic measures and treatments remain a concern. Attachment refers to the way in which children learn to use their parents as a so-called safe haven to cope with distress and as a secure base to explore their social and physical environments. Attachment theory can be of clinical significance across several spheres. For example, in the unfolding COVID-19 pandemic, understanding attachment and mental health is highly relevant to make sense of how the pandemic influences the lives

of families, including expected increases in parent and infant mental health problems and potentially the number of orphans in institutions.

Additionally, for many clinicians working specifically within perinatal mental health, attachment theory is crucial to understand the influence of parents' mental health on the developing attachment relationship. However, the evidence to support specific attachment theory-based approaches is limited. For example, only a few studies have examined clinical approaches for assessing attachment or developed attachment interventions in the context of parental mental disorders. ^{1,2} The absence of evidence-based attachment measures and treatments for clinical populations might be one of the reasons misunderstandings and misapplications of attachment theory have proliferated in clinical practice.

The scientific study of attachment was facilitated by the development of research measures assessing attachment in children and adults, including the Strange Situations Procedure and the Adult Attachment Interview. However, these tools have several limitations. Firstly, they require training and reliability certification, and neither were designed with clinical assessment, care, or intervention in mind. Secondly, confusion exists within mental health services about their clinical utility and whether clinicians can apply such research measures without training or understanding of their strengths and limitations in a clinical context. Finally, caution is required when the tools are clinically applied because the evidence for insecure or disorganised attachment predicting a child's risk for later mental disorders shows robust but modest effect sizes.3-5 The sensitivity and specificity of the attachment measures used nowadays are insufficient for individual diagnosis.⁶ Furthermore, attachment classifications such as disorganised attachment can easily be confused with DSM-5 attachment disorders, and unlike the DSM-5 disorders, attachment classifications do not necessarily indicate neglect or maltreatment, or even parenting difficulties.7

In at least two areas of infant health care, attachment theory and research has been enormously influential in changing policy. Firstly, attachment theory has substantially changed the care practices of children admitted to hospital globally through the introduction of rooming-in of parents or carers.⁸ Secondly, since research has shown that institutionalised settings for children can be seriously damaging,⁸ attachment theory has emphasised the need for family-based care for children who are either orphans or have parents unable to care for them.⁹

The application of attachment measures in a clinical context remains a concern. For example, infant-parent attachment is often assessed during a period of parental mental illness or without the necessary training. These assessments might not account for the fact that the parent's difficulties in relating to their child might be temporary rather than necessarily a feature of the enduring relationship with their child. Consequently, the risk of blaming the parent is elevated and the capacity of restoring a good parent-child relationship underestimated once the stress lessens, the mental disorder has been treated, and parenting support provided.

Despite the challenges facing attachment theory within clinical practice, the theory could contribute to a developmentally informed understanding of the effect of parental mental disorders on increased vulnerability to poorer infant and child outcomes, as well as informing recommendations about parenting in the context of parental mental disorders. For example, attachment theory is important for understanding the challenge of night-time care of women with severe mental disorders. For these women, sleep is essential to supporting mental health and resilience but can be incompatible with the nighttime needs of newborns. Correspondingly, for parents with personality disorders, the disinhibiting effect of sleep disruption could signify that they are more disturbed by the infants' persistent crying at night. In this context, the importance of other attachment figures cannot be underestimated.10

In summary, attachment theory has an important role in informing assessment and treatment of perinatal mental disorders and promotion of infant mental health. However, clinically relevant and valid diagnostic measures and treatments for attachment issues are still limited in evidence, specifically in the area of mental health. These are urgently needed, because the core tenets of attachment theory (including the importance of continuity of care and the availability of more than one attachment figure) are of paramount relevance for perinatal and infant mental health care.

AS reports grants from Palix Foundation, outside of the submitted work. All other authors declare no competing interests.

*Megan Galbally, Alan Stein, Cecilia Ambrosius Hoegfeldt, Marinus van IJzendoorn

m.galbally@murdoch.edu.au

College of Science, Health, Education and Engineering, Murdoch University, Murdoch, WA 6150, Australia (MG); School of Medicine, University of Notre Dame, Fremantle, WA, Australia (MG); Women's Health, Genetics and Mental Health Directorate, King Edward Memorial Hospital, Subiaco, WA, Australia (MG); Department of Psychology, Education and Child Studies, Erasmus University, Rotterdam, Netherlands (MVI); School of Clinical Medicine, University of Cambridge, Cambridge, UK (MVI); Department of Psychiatry, University of Oxford, Oxford, UK (AS, CAH); MRC/Wits Rural Public Health and Health Transitions Research Unit (Agincourt), School of Public Health, Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, South Africa (AS)

- Stein A, Netsi E, Lawrence PJ, et al. Mitigating the effect of persistent postnatal depression on child outcomes through an intervention to treat depression and improve parenting: a randomised controlled trial. Lancet Psychiatry 2018; 5: 134-44.
- 2 Ramsauer B, Muhlhan C, Lotzin A, et al. Randomized controlled trial of the circle of security-intensive intervention for mothers with postpartum depression: maternal unresolved attachment moderates changes in sensitivity. Attach Hum Dev 2019; published online Nov 14. https://doi.org/10.1080/14616734.2019.1689406.

- van Ijzendoorn MH, Schuengel C, Bakermans-Kranenburg MJ. Disorganized attachment in early childhood: meta-analysis of precursors, concomitants, and sequelae. Dev Psychopathol 1999; 11: 225-49
- Fearon RP, Bakermans-Kranenburg MJ, van Ijzendoorn MH, Lapsley AM, Roisman GI. The significance of insecure attachment and disorganization in the development of children's externalizing behavior: a meta-analytic study. Child Dev 2010; 81: 435-56
- Flowers AG, McGillivray JA, Galbally M, Lewis AJ. Perinatal maternal mental health and disorganised attachment: a critical systematic review. Clin Psychologist 2018; 22: 300-16.
- Van Ijzendoorn MH, Bakermans JJW, Steele M, Granqvist P. Diagnostic use of Crittenden's Attachment Measures in family court is not beyond a reasonable doubt. Infant Ment Health J 2018; 39: 642-46.
- Granqvist P, Sroufe LA, Dozier M, et al. Disorganized attachment in infancy: a review of the phenomenon and its implications for clinicians and policy-makers. Attach Hum Dev 2017; 19: 534-58.
- Robertson J. Young children in hospital. London: Routledge Kegan & Paul, 1970.
- Van IJzendoorn MH, Bakermans-Kranenburg MJ, Duschinsky R. In search of "good-enough" care arrangements for the child: a quest for continuity of care. In: Dwyer JG ed. The Oxford Handbook of Children and the Law. Oxford: Oxford University Press, 2020: 129-53.
- Hrdy SB. Mothers and others: the evolutionary origins of mutual understanding. Cambridge: Harvard University Press, 2011.



(I) The NIMH global mental health research community and COVID-19



Published Online August 23, 2020 https://doi.org/10.1016/ 52215-0366(20)30347-3

The world faced substantial challenges in meeting the demands for mental health care, even before the emergence of coronavirus disease (COVID-19). With the havoc caused by the pandemic and the impending impact on economies, social structures, and health systems, a global mental health crisis is arising. The Director-General of the UN forecast this situation in a policy brief on May 13, 2020, stating, "The mental health and wellbeing of whole societies have been severely impacted by this crisis and are a priority to be addressed urgently."

1 Three critical actions were recommended: apply a whole-of-society approach to promote, protect, and care for mental health; ensure widespread availability of emergency mental health and psychosocial support; and support recovery from COVID-19 by developing mental health services for the future.

In a field that is chronically underfunded and ignored by most policy makers, especially in low-income and middle-income countries (LMICs), taking action is not easy. Upwards of 90% of people with mental health conditions receive no treatment in LMICs. As the COVID-19 pandemic unfolds, and given the likelihood of even fewer resources dedicated to mental health services, questions arise about whether it will be feasible to implement the UN's recommendations in the coming years.

Can the research community offer any rapid solutions? The National Institute of Mental Health (NIMH) supports a network of global research Hubs designed to address questions that arise as LMICs widely implement sustainable, evidence-based mental health services.2 These so-called "NIMH Scale-Up Hubs" are interdisciplinary, with interest and expertise of the people involved in increasing the reach, accessibility, adoption, quality, costs, and effectiveness of mental health services, enhancing collaborative learning and development, building local capacity for implementation research, and establishing relationships with governmental, nongovernmental, and community-based stakeholders. We present examples of replicable programmes that can support the UN's recommendations.

Hubs deploy creative strategies to engage entire communities in delivering evidence-based interventions through various platforms across the life course. In Pakistan, teachers are trained to recognise and manage emotional and behavioural problems in children attending primary and secondary schools through a specially developed online training programme integrated into the teachers' ongoing education platforms.3 Teachers use an interactive chatbot to work with children in classroom settings, and become better equipped to prevent any emotional or behavioural problems from disrupting the children's education and wellbeing. In Uganda, parents are trained to work alongside community health workers to deliver a family group intervention to children with disruptive behaviours. ⁴ The intervention builds support for families by providing opportunities for caregivers and children to communicate in safe settings with other families who have shared experiences. In Sierra Leone, evidencebased group interventions for mental health are integrated into youth entrepreneurship programmes that offer war-affected young people opportunities for a livelihood and encourage development of local capacity.5 The interventions combine elements from