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IN DEPTH ARTICLE: COMMENTARY

The Need to Develop Specialized Formularies of Apps and Web-Based Tools

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The paper by Pospos and her colleagues [1] from San Diego and the response from Platts and Morgan [2], two medical students from Warwick Medical School in Britain, between them, focus on the importance of apps and Web-based tools as potential therapeutic agents to be used as part of a treatment package of solutions for a range of psychiatric disorders. In this instance, the focus of their papers is on physicians and medical students, who we know suffer from burnout; substance abuse; depression and anxiety; and, tragically, suicide, at rates generally higher than equivalent demographic population groups [3]. Pospos and her team [1] selected seven resources, from 36 examined, that they believed would foster wellness and reduce burnout, depression, and suicide risk among healthcare workers. Platts and Morgan [2] then endorsed the early use of a range of mindfulness apps by medical students, as promoted to them by their medical school, which they described as being more empowering than a conventional curriculum on mental health issues.

Both papers come to the same conclusion, although from differing directions. They both promote the importance of a range of possible apps and Web-based tools to be used as part of a broad strategy to promote physician and student health and well-being, and both groups suggest some specific tools as likely being useful. Their conclusions are both obvious and important and have a strong parallel with the development of the pharmaceutical industry over many years where there has been the gradual evolution of organized formularies of medications. Just as we have learned to live with, and embrace, medication formularies, with groups of medications being identified as helpful for a range of specific disorders, from depression to substance abuse, now, we need to develop a series of formularies of apps and Web-based tools.

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The authors of these two papers have in effect commenced the development of such a formulary of apps for medical providers, with their early formulary being also potentially applicable to other professional groups who have mobile, busy, and distracted lives. In this instance, there is a broad definition of a type of patient (a medical provider) as being the target for the app formulary. Many other formularies could of course be developed, just as there are many differing formularies for pharmaceutical products. Such formularies could include sets of best-evidence apps for, for instance, depression, anxiety, sleep, posttraumatic stress disorder, substance abuse, and schizophrenia, among other disorders, as well as apps for children, seniors, women, men, veterans, and active military members, to name some more potential formulary categories. The US Department of Veterans Affairs has already in part gone down this path, having created over 30 apps designed for veterans and available by download to everyone from their online VA App Store [4]. The development of app formularies of course becomes potentially much more extensive when moving into the general medical area, with the development of formularies of apps and online tools for diabetes, chronic heart failure, asthma, arthritis, and hundreds of other disorders. Many of these formulary groupings will likely include behavioral apps for, for instance, mindfulness and home monitoring of a multitude of symptoms. Just as there are thousands of medications available for innumerable illnesses and disorders, with most individual medications having several medical indications, so there will eventually be many thousands of high-quality apps and tools, with many apps also being indicated for several target indicators.

There is a substantial task ahead of us trying to rationally organize these apps into formularies, as Pospos et al. [1] have attempted to do, and make those that seem to have a reasonable degree of quality available for our patients as a series of choices to support individual needs. Pospos et al. [1] described the quality process they developed, which included peer-reviewed and Web-based searches before putting the apps through a formalized evaluation assessment [5] prior to a

forced manual selection process and a review of any research findings supporting their effectiveness. Just as medications pass through a sophisticated quality control system, eventually, we will need to continuously improve and iteratively develop improved standards to both assess the quality of apps [6] and develop a consensus approach as to how apps are rated and recommended for use [7] and guidelines as to how best integrate them into clinical care [8].

In the USA, the main function of a prescription formulary is to specify particular medications that are approved to be prescribed at an individual hospital or health system or under a particular health insurance policy. The development of prescription formularies is primarily based on evaluations of efficacy, safety, and the cost-effectiveness of the medications involved. The development of app formularies is likely to occur in a somewhat different way from those used for drugs, where cost containment has been a major driver, as today's apps are usually very cheap, and often free. The result of this is that interested professional groups or organizations will likely develop most initial app formularies. The current best example of such development is the Veterans Administration [4], which has been an impressive national and international leader in this area.

Pospos et al. [1] concluded that the "next steps include adapting digital health strategies to specifically fit the needs of healthcare providers" (p. 109). It seems clear that one of those strategies is making formularies of quality tested and evaluated apps available to both providers and patients so that our approach to psychiatric care can constantly improve. As a profession, we are moving increasingly towards the development of hybrid care [9], both in-person and online, and app formularies are an essential step in that direction.

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