Has the National Registry of Evidence-based Programs and Practices (NREPP) lost its way?

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The US Substance Abuse and Mental Health Services Administration (SAMHSA) introduced its review system designed to identify evidence-based intervention programs in 1999. At that time the system was called the National Registry of Effective Prevention Programs (NREPP). Over the years, the system has undergone a number of revisions, notably in March of 2006, when the rating criteria were revised and the system re-named the National Registry of Evidence-based Programs and Practices (with the acronym, NREPP, unchanged). The NREPP system was revised again in 2015 (Department of Health and Human Services, 2015). The minimal requirements for review remained the same, but it was proposed that the studies to be reviewed would be identified using “standardized screening criteria” and thereby better reflect the evidence-base of the program.

At the time NREPP was introduced, there was concern that practitioners were using ineffective programs. NREPP requires that programs be evaluated using an experimental or quasi-experimental design and that the evaluation demonstrate an effect on at least one behavioral health-related outcome. It also requires that the results of the evaluation be published in a peer-reviewed journal, other professional publication or comprehensive evaluation report. The purpose of applying these criteria is, presumably, to weed out interventions for which there is no evidence of efficacy or very weak evidence. A look at the current list of NREPP programs suggests that such weeding out is not happening.

As of January 25, 2017 there were 422 interventions listed on the NREPP webpage. These were divided into 309 Legacy Programs that were on the NREPP webpage as of September 2015 and 113 Newly Reviewed Programs that were added after this date. The growth of the latter category is especially troublesome, as it seems to be occurring at a very fast pace and leaves one wondering how rigorous the NREPP review process is and whether it is open to manipulation by program developers. All of the 113 Newly Reviewed Programs have been reviewed and accepted since November 20, 2015, meaning they are being added to NREPP at a rate of about eight per month. Also 29 were added in the two months preceding January 25, 2017, as there were only 85 Newly Reviewed Programs on November 30, 2016 (one of which, Count on Me Kids, was removed by January 25, 2017).

Table 1 shows the type of evidence that was reviewed for these 113 Newly Reviewed Programs. In the case of 16 (14%) of these programs, the evidence comprised a non-peer-reviewed report that was either unpublished or available online. For a further 51 (45%), the evidence pertaining to their effectiveness was contained in a single journal article (although four also submitted unpublished reports or unpublished manuscripts for review in addition to the journal article). Twenty-seven programs (24%) were added to NREPP based on the evidence contained in two journal articles, and only 19 (17%) submitted more than one journal article for review.

In addition to the rapid growth in the number of programs included on NREPP and the minimal evidence reviewed for many of these, a further cause for concern with the current list is the quality of research contained in the studies reviewed (specifically, brief length of the follow-up, high rates of attrition, and very small and non-representative samples). For example, the single study reviewed in support of the Youth Empowerment Seminar (YES!) used a one-week posttest and had close to 60% attrition over the course of the study (Gahremani et al., 2013). The sole study reviewed for Mindfulness-Based Substance Abuse Treatment (MBSAT) for Adolescents had a 12-week follow-up and analyzed self-report and institutional data from just 27 and 35 subjects, respectively (Himelstein, Saul, & Garcia-Romeu, 2015). Other NREPP programs reviewed on the basis of a single study with very small samples include Adlerian Play Therapy (n = 58; Meaney-Whalen, Bratton, & Kottman, 2014), Conscious Discipline (n = 66; Rain, 2014), Culturally Informed and Flexible Family Based Treatment for Adolescents (CIFTA) (n = 28; Santisteban, Mena, & McCabe, 2011), Primary Project (n = 35; Naftpaktitis & Perlmutter, 1998), Support for Students Exposed to Trauma (SSET) (n = 76; Jaycox et al., 2009), and Trauma Sensitive Yoga (n = 64; van der Kolk et al., 2014). These are clearly pilot studies reporting preliminary findings; yet the NREPP review process allows these to be used for designating the programs evaluated as “evidence-based”.

A final cause for concern with the NREPP review process is its failure to adequately deal with conflict of interest. Of the 113 Newly Reviewed Programs, the NREPP webpage contains enough information on 112 to assess the existence of such a conflict (Constant and Never Ending Improvement contains no details of the authors of the manuscript reviewed by NREPP and so one cannot determine if any of them had a conflict of interest).
Eighty-seven of these 112 programs (78%) involve some conflict of interest. In the majority of cases (n = 69), the person listed as the contact for program information or dissemination is an author on one or more of the documents reviewed for inclusion on NREPP (this excludes documents cited in the “Other Studies” or “Supplemental Documents Cited” NREPP categories). The other 18 conflicts include the program developer being an author on the manuscripts reviewed by NREPP, reports commissioned or conducted by the organization that disseminates the program, authors of manuscripts working for the institution that disseminates the program, the author of a manuscript being a previous close collaborator of the program developer, and authors of the manuscript having shares in the company that disseminates the program.

There are likely some programs on NREPP that truly are “evidence-based” in the sense that there is a body of high quality research, conducted by more than one independent research team, that consistently shows statistically and practically significant effects on pre-specified outcomes. However as the number of programs grows, these are increasingly difficult to identify. Worse still, the current NREPP review process essentially equates any such quality interventions with those that have been evaluated by the individual who developed and disseminates the program using a very small, self-selected sample, and in which the findings of the evaluation have appeared only in an internal report or an unpublished manuscript or a pay-to-publish online journal. It even includes interventions that employ therapeutic practices such as thought field therapy and eye movement desensitization that are considered potentially harmful and supported only by pseudoscience (Lilienfeld, 2007). Accordingly, NREPP can be added to the list of evidence-based initiatives that no longer serve the purpose for which they were created and contribute to a waste of valuable societal resources and a degradation of science (Ioannidis, 2016).

In order to rectify this situation NREPP must incorporate into its review process procedures designed to improve research quality and integrity. These include improving the transparency of its review process, requiring truly independent replication studies, providing detailed declarations of financial conflicts of interest of program developers who review their own programs, and according most significance to results from studies appearing in journals that adhere to rigorous publication standards such as requiring preregistration of analysis plans and data and materials sharing, and have a mechanism in place (such as Registered Reports) that clearly distinguishes exploratory research from hypothesis testing (Nosek et al., 2015).

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**Conflict of interest**

The author reports no conflict of interest.

**References**


Ioannidis, J. P. A. (2016). Evidence-based medicine has been hijacked: A report to David Sackett. Journal of Clinical Epidemiology, 73, 82–86.


