Public and Nonprofit Funding for Research on Mental Disorders in France, the United Kingdom, and the United States

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ABSTRACT

Objective: To document the investments made in research on mental disorders by both government and nonprofit nongovernmental organizations in France, the United Kingdom, and the United States.

Data Sources: An exhaustive survey was conducted of primary sources of public and nonprofit organization funding for mental health research for the year 2007 in France and the United Kingdom and for fiscal year 2007-2008 in the United States, augmented with an examination of relevant Web sites and publications. In France, all universities and research institutions were identified using the Public Finance Act. In the United Kingdom, we scrutinized Web sites and hand searched annual reports and grant lists for the public sector and nonprofit charitable medical research awarding bodies. In the United States, we included the following sources: the National Institutes of Health, other administrative entities within the Department of Health and Human Services (eq, Centers for Disease Control and Prevention), the Department of Education, the Department of Veterans Affairs, the Department of Defense, and the National Science Foundation and, for nonprofit funding, The Foundation Center.

Data Extraction: We included research on all mental disorders and substance-related disorders using the same keywords. We excluded research on mental retardation and dementia and on the promotion of mental well-being. We used the same algorithm in each country to obtain data for only mental health funding in situations in which funding had a broader scope.

Results: France spent \$27.6 million (2%) of its health research budget on mental disorders, the United Kingdom spent \$172.6 million (7%), and the United States spent \$5.2 billion (16%). Nongovernmental funding ranged from 1% of total funding for mental health research in France and the United States to 14% in the United Kingdom.

Conclusions: Funding for research on mental disorders accounts for low proportions of research budgets compared with funding levels for research on other major health problems, whereas the expected return on investment is potentially high.

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Corresponding author: Isabelle Durand-Zaleski, MD, PhD, Département de Recherche Clinique et Santé Publique, Groupe hospitalier Henri Mondor–Albert Chenevier, 51 avenue du Maréchal de Lattre de Tassigny, 94010 Créteil, France (isabelle.durand-zaleski@hmn.aphp.fr). More than 27% of adult Europeans experience at least 1 form of mental disorder during any 1 year.¹ Expenditures on mental health care, reported in 19 European Union countries, range from 2% to 14% of total health care expenditures,² while mental disorders represent 19.5% of all disability-adjusted life-years in Europe.³ In the United States, it is estimated that 1 in 4 adults experiences a mental disorder,⁴ while expenditures.⁵ Yet, given the profound social, economic, and personal impacts of mental disorders, some have expressed concern that funding support for mental health research is inadequate.^{6,7}

A recent report on brain research in the European Union⁸ estimated that public expenditures for research on psychiatric disorders represented roughly one-third of expenditures for all brain research. This report also noted that all types of brain research received fewer public funds than cancer research, although the total medical and nonmedical costs and burden of brain diseases far surpassed those of cancer.⁴ An informal survey³ of European countries by the World Health Organization reported that funding for mental health research ranged from 4% (Czech Republic) to 18.5% (Ireland) of total health research expenditure. No uniform reporting system was used in the survey, and figures are therefore difficult to interpret. The underlying assumption that expenditure on research should equal the burden of disease9,10 can be challenged. An argument could be made that funding levels should be determined by the expected return on investment, such as improvements in health and nonhealth outcomes including participation in employment or reduction in medical costs. If decision makers in public/charitable research bodies consider mental health research to be less efficient than cancer research, funds would be directed to cancer. There is evidence from the RAND Corporation that the rate of return on mental health research does not differ much from the cardiovascular research.¹¹ In order to start a convincing argument on the appropriate level of funding for mental health research, however, information on actual funding is needed.

Our objective was to estimate the amount of funding from public and private charitable sources for mental health research and to compare to the amount spent per capita and relative to biomedical research investment for other health conditions in 2 European countries (France and the United Kingdom) and the United States. In all 3 countries, there has been recognition of the need for increasing attention to mental health research despite different structures of health ownership, regulation, and financing. In the United States, a strategic plan for research on mental health was developed by the National Institute of Mental Health (NIMH). The aim of the NIMH plan is to promote research in mental health that can indeed result in health benefits for patients.¹² In the United Kingdom, there is now an active campaign supported by high profile celebrities to counter the pervading culture of stigma and to increase funding for mental health research (http://www.researchmentalhealth.org.uk). In France, a new scientific foundation, FondaMental, created by the Ministry of Research and dedicated to mental health, was set up in 2007 with the goal of raising funds for mental health research (http://www.fondation-fondamental.org).

DATA SOURCE AND DATA EXTRACTION

Given differences in governmental organization, policy orientation, and availability of information on research expenditures across the 3 study countries, our material varied by country. We conducted an exhaustive survey of primary sources of funding for mental health research from public and nongovernmental nonprofit organizations, including charities. We restricted our scope to public and charitable funding because commercial sources (eg, the pharmaceutical industry), when contacted, considered these data to be proprietary and confidential. We knew from previous reports that the industry share of mental health funding (as opposed to research in drug development), at least in some parts of Europe, was minimal.⁸ We included research on all mental disorders and substance-related disorders using the same keywords (see Supplementary eTable 1, available at PSYCHIATRIST.COM). We excluded research on mental retardation and dementia (eg, Alzheimer's disease), which benefit from earmarked funds and dedicated research programs, and on promotion of mental well-being. We used the same algorithm in each country to obtain data for funding pertaining only to mental health in cases in which funding had a broader scope.

France

In France, all universities and research institutions were identified using the Public Finance Act, which included the full operating budgets (excluding capital investments) of universities and research institutions that housed departments or professionals involved in work on mental disorders. Salaries for researchers in mental health were identified directly from researchers' identities.

Research institutions and universities did not have accounting systems that allowed for the isolation of money spent on supplies, personnel, administration, and overhead for mental disorders research. This shortcoming has been reported previously,⁷ and we used a top-down allocation of the annual budgets. The proportion of publications in psychiatry was used as the allocation key to determine the share of the institutions' budgets allocated to mental health research. We extracted from ISI Web of Knowledge (Thomson Reuters) the total number of publications in peer-reviewed international journals by each institution and the total number of psychiatry-related publications using keywords for mental disorders and substance-related disorders. We assumed that the productivity of researchers on mental disorders did not differ from other brain research. This assumption was tested in a sensitivity analysis. In addition to recurrent research budgets, the total amount of grants on mental disorder research provided by public or not-for-profit organizations was obtained directly from the funding institutions.

United Kingdom

In the United Kingdom, we scrutinized Web sites and hand searched annual reports and grant lists for publicsector and nonprofit charitable medical research awarding bodies. Whenever data were missing, we contacted the relevant bodies to identify funding in the calendar year 2007. We went through all the grant records of the different ministries of health in the 4 countries of the United Kingdom.

We examined grants awarded by medical and social science research councils, the different programs of the National Institutes of Health Research (NIHR), as well as the annual grant programs of UK medical research charities. We reviewed the annual reports and accounts of the mental health research charities and the National Lottery's health research program. We also examined the National Research Register Archive and the UK Clinical Research Network Study Portfolio to identify additional significant research funding.

We also included the European Commission contribution to mental health research as an additional public funding source for France and the United Kingdom.⁸

United States

In the United States, we examined Web sites and publications from the principal research-funding departments and institutes within the US government. Applying the methodology of Pincus and Fine,¹³ we included the following sources: National Institutes of Health (NIH), other administrative entities within the Department of Health and Human Services (eg, Centers for Disease Control and Prevention), Department of Education, Department of Veterans Affairs, Department of Defense, and the National Science Foundation.

Using the Research Portfolio Online Reporting Tool (RePORT) of the NIH (http://report.nih.gov/categorical_ spending.aspx), we examined the titles of all grants funded by NIH in the fiscal year ending in 2008 under the research, condition, and disease categories of "mental health" and "substance abuse." We selected this strategy rather than directly reporting the annual budgets for institutes commonly associated with mental health research (eg, NIMH, National Institute on Drug Abuse [NIDA], and National Institute on Alcohol Abuse and Alcoholism [NIAAA]) since research on mental health can span across other institutes within NIH and would not be reflected in these amounts. However, to ensure that our estimation strategy for the United States was similar to those in other countries studied, we also included the operating budgets for NIMH, NIDA, and NIAAA after subtracting the portion devoted to research project grants. This strategy allowed us to include public expenditures on mental health research training and administration.

To determine funding through the US Department of Education, we examined the abstracts of all funded projects in fiscal year 2008 in the grant award database on the Department of Education Web site. We excluded grants for which the funding was to be used for service provision rather than research. The US Department of Defense has recently expanded its funding for mental health research, although much of that information is not readily available. We estimated this funding by the fiscal year 2007 and fiscal year 2009 appropriations for Congressionally directed medical research related to psychological health and traumatic brain injury (information was not available to separate these categories).

We used the most recent National Science Foundation Survey of Federal Funds for Research and Development (fiscal year 2007) to estimate the funding for mental health research from governmental departments when we were unable to find information using other sources. For this estimate, we report funding for "psychology research," which is defined by the National Science Foundation as dealing with "behavior, mental processes, and individual and group characteristics and abilities." We recognize that this is an imperfect definition and that true mental health research spending is likely to be higher. However, since research is not the principal mission of any of these departments, we believe that they represent, in total, less than 5% of federal mental health research funding. We also did not include state and local government spending on mental health research. In 1992, state government spending on mental health research was 8% of total mental health research spending.¹³

To estimate expenditures by nonprofit organizations in the United States, we used data from The Foundation Center, a US nonprofit service organization, which maintains a comprehensive database on US grant makers and their grants (http://foundationcenter.org), and we kept projects listed under the subjects "mental health," "alcohol," or "substance use" that were categorized as research.

Analytic Procedures

Comparisons between countries were conducted as follows: first, we estimated the total amount of mental health research spent per capita; second, we compared the investment in mental health research to the total funding for medical research. United Kingdom pounds and euros were converted into US dollars using the Organization for Economic Cooperation and Development purchasing power parity indexes for 2007 (http://www.oecd.org/dataoecd/61/54/18598754. pdf), 1 US\$=0.911 €=0.646 UK£.

RESULTS

France

In France, total resources for universities and other institutions involved at least partly in research on mental disorders were \$1.087 billion. From all articles published in peer-reviewed journals in 2007 (no. = 26,218), 2.22% (583) pertained to mental disorders and substance abuse (ranging from 0.58% to 3.26% in the universities and research institutions). Using this allocation key, we estimated that public funding for research on mental disorders was approximately \$21.8 million in 2007. Assuming that the productivity of researchers in psychiatry is twice that of researchers in other fields of health research would roughly divide that amount by

Table 1. Funding for Research on Mental Disorders in France in 2007: Structural Funding and Research Grants From the State and Charities

		Funding for	
	Total Funding for Health Research, US\$	Researc	h on
Source of Funding		Mental Disorders	
		US\$	%
INSERM (National Institutes of	389,145,993	11,130,626	2.90
Health and Medical Research)			
CNRS (National Center for	494,129,528	5,982,437	1.20
Scientific Research)			
CEA (French Atomic Energy	85,611,416	2,788,145	3.30
Commission)			
Universities	68,408,342	1,646,542	2.40
Pasteur Institute	49,245,884	285,401	0.60
Clinical Research Program,	38,605,928	2,447,859	6.34
Ministry of Health			
Innovation Funding Program,	18,660,812	0	0
Ministry of Health			
National Research Agency	83,710,209	1,767,289	2.11
Orange Foundation	307,355	307,355	100.00
Foundation of France	3,830,955	98,793	2.60
Brain Research Foundation	823,271	0	0
Medical Research Foundation	31,899,012	406,147	1.26
Pasteur Charitable Fund	135,203,074	779,363	0.58
Total funding	1,399,582,875	27,628,979	1.97

2, and inversely assuming a twice lower productivity would multiply it by 2. We assumed therefore that the amount of public money spent on mental health research represented between 1% and 4% of publicly funded research in France in 2007. Specific public research contracts on mental disorders during that same year added another \$4.2 million. Charities in France contributed \$1.6 million. Total funding available for research on mental disorders was therefore \$27.6 million (Table 1).

United Kingdom

In the United Kingdom, we were able to identify in excess of \$172.6 million allocated by the public sector and major nonprofit charitable organizations to mental health research (Table 2). Support for research within different National Health Service trusts in England accounted for more than 35% of this funding. The NIHR now has a number of grant programs relevant to mental health. Of these, the Program for Applied Research is the most significant. Awards accounted for \$35.8 million in 2007 (21% of all mental health research funding). Other NIHR programs (Health Technology Assessment Program, Service Delivery and Organization Program, Research for Patient Benefit Program, Policy Research Program) accounted for another \$4.2 million (over 2%). We identified funding for mental health research from several other government departments and programs including the Chief Scientist for Scotland, the Wales Office of Research and Development for Health and Social Care, and the now defunct National Program on Forensic Mental Health Research and Development.

Over 23% (\$40 million) of mental health research was funded by the Medical Research Council. A small amount of funding, \$1.5 million, was also allocated by another research council, the Economic and Social Research Council.

Table 2. Identified Funding for Mental Health Research in the United Kingdom in 2007

	Funding for Research	
	on Mental Disorders	
Source of Funding	US\$	% ^a
Public Sources		
NHS Transitional Research and Development	60,456,940	35.02
Support Funding in England		
Medical Research Council	40,106,401	23.23
NIHR Program for Applied Research	35,838,011	20.76
Chief Scientist for Scotland	2,846,720	1.65
NHS Health Technology Assessment Program	2,790,918	1.62
NHS Research and Development Support	1,734,780	1.00
Economic and Social Research Council	1,504,158	0.87
Other	894,423	0.52
National Program on Forensic Mental Health	826,071	0.48
Research and Development		
Wales Office of Research and Development for	673,843	0.39
Health and Social Care		
NIHR Research for Patient Benefit Program	623,675	0.36
NHS Service Delivery and Organization Program	547,231	0.32
NIHR Policy Research Program	285,915	0.17
Total funding	149,128,247	
Charities		
Wellcome Trust	9,910,762	5.74
Mental Health Foundation	6,789,031	3.93
Sainsbury Center for Mental Health (including	3,640,867	2.11
Gatsby Charitable Foundation support)		
Big Lottery Fund	3,160,297	1.83
Total funding	23,501,793	

^aPercentage of total health care research funding.

Abbreviations: NHS = National Health Service, NIHR = National Institutes of Health Research.

Nongovernmental nonprofit funding accounted for \$23.5 million. The principal nongovernmental nonprofit source of funding for medical research was the Wellcome Trust, which allocated \$9.9 million to mental health in the financial year ending September 2007. Two mental health–specific charities conducted significant mental health research activities. The Sainsbury Center for Mental Health spent \$3.6 million on research in 2007, the majority of which was funded through a grant from the Gatsby Charitable Foundation. The Mental Health Foundation also spent more than \$6.7 million on mental health research. Just under \$3.2 million of funding for projects came from the National Lottery's Big Lottery Fund (see Table 2).

We conservatively estimated that almost \$2.5 billion was spent on medical research by the public and charitable sectors in 2007. Thus, roughly 7% of total medical research funding in the United Kingdom was allocated to mental health–related research in 2007.

In 2005, the European Commission contributed €94 million (\$103 million) to brain research. The average per capita spending on brain research (from both the European Commission and local sources) was estimated to be €1.70 (\$1.87) in the 15-member European Union, one-third of this amount allocated to mental health research.

United States

In the United States, the federal government and nonprofit organizations spent in excess of \$5.2 billion on mental

Table 3. Federal and Nonprofit Mental Health and Substance Abuse Research Funding in the United States in Fiscal Year 2007–2008

Source of Funding	Total Mental Health Research Funding, US\$ (in thousands)
National Institutes of Health	4,663,892
Department of Veterans Affairs	84,481
Department of Defense	356,000
Center for Medicaid and Medicare Services ^a	6,502
Social Security Administration	10,000
Department of Education	8,325
National Science Foundation ^a	5,542
Department of Homeland Security ^a	9,274
Department of Transportation ^a	17,280
National Aeronautics and Space Administration ^a	7,737
Total federal funding	5,169,033
Total nonprofit funding (foundations)	40,120
Total funding	5,209,153
^a Total funding for psychology research obtained on	the basis of a National

'Total funding for psychology research obtained on the basis of a National Science Foundation survey for fiscal year 2007.

Table 4. Summary Comparison of Research Funding for Mental and Substance-Related Disorders in France, the United Kingdom, and the United States in 2007

		United	United
Funding Category	France	Kingdom	States
Total public funding $\times 10^6$, US\$ (% ^a)	26.0 (94)	149.1 (86)	5,169.0 (99)
Total charitable funding $\times 10^6$, US\$ (% ^a)	1.6 (6)	23.5 (14)	40.1 (1)
Total funding for mental disorders × 10 ⁶ , US\$	27.6	172.6	5,209.1
European Commission contribution per capita, US\$	0.63	0.63	0
Total per capita funding, US\$	1.07	3.46	17.22
Percentage of biomedical research funding	2	7	16

^aPercentage of total funding for mental disorders.

health research in fiscal year 2008. The vast majority (90%) of this funding came from the NIH (Table 3); foundations contributed less than 1%. The total NIH research budget in fiscal year 2008 was \$29.3 billion; we estimated that spending on mental health research in the United States accounted for 16% of total health care research.

Comparisons

Comparisons between countries are summarized in Table 4. Despite the additional contribution from the European Commission, mental health research spending in France and the United Kingdom was lower than in the United States, both per capita and relative to total health care research spending.

Mental disorders accounted for over 8% of total health care expenditures in France and 17% of total disabilityadjusted life-years burden. While there has been considerable variation in estimates of the costs of poor mental health in the United Kingdom, making use of one of the more conservative estimates of the costs of mental illness in England alone (not the United Kingdom) in 2007, the total direct costs of services were \$11.8 billion in 2007,¹⁴ or 8.8% of the \$133.7 billion total National Health Service expenditure in England in the same year. If we also include lost earnings Figure 1. Comparison of Mental Health Research Spending (as a percentage of biomedical research spending), Mental Health Care Spending (as a percentage of total health care spending), and Burden of Mental Disorders (as a percentage of total disability-adjusted life-years [DALYs]) in France, the United Kingdom, and the United States in 2007



^aEngland alone for percentage of mental health care spending relative to total health care spending.

^bFederal, state, and local funding for percentage of mental health care spending relative to total health care spending.

due to poor mental health, this addition would account for a further \$40.4 billion. Moreover, mental disorders accounted for 17% of total disability-adjusted life-years burden in the United Kingdom.³ In the United States, the costs of mental disorders to the publicly funded health care systems represent just over 10% of their total expenditure. When costs to other payers are included, the total amount is estimated to be \$58 billion,¹⁵ which represents less than 3% of total health expenditure. The contribution of mental disorders to total disease burden in the United States has also increased from 15.4% of total disability-adjusted life-years in the 1990s¹⁶ to 25% in 2009.¹⁷ Figure 1 summarizes these results.

DISCUSSION

Of all 3 countries surveyed, France spent the lowest amount of money in real terms and per capita and spent the lowest share of its health research budget on mental health, and the United States spent the highest. The per capita spending on mental health research ranged from \$1.07 in France to \$3.46 in the United Kingdom and \$17.22 in the United States. The share of health care research budgets attributed to mental health research was 2% in France, 7% in the United Kingdom, and 16% in the United States. While other authors have looked at the relationship between funding and the burden of disease in the United States and the United Kingdom,^{6,9} this study is, to our knowledge, one of the first multicountry studies to examine this relationship for mental disorders.

The structure of funding for research on mental disorders varied by country, although the state or social health insurance was the principal source for mental health research. Charitable organizations played a limited role in France and the United States, representing less than 1% of funding, whereas, in the United Kingdom, 14% of mental health research was financed by charitable organizations. However, the greater contribution of major research charities in the United Kingdom needs to be put into perspective. Overall, research charities are the principal source of funding for all health research in the United Kingdom, but very little of these resources goes toward mental health. The Wellcome Trust allocated \$10 million in 2007 to mental health, whereas the majority of other major medical research charities did not focus on mental health issues.¹⁷

The United States spends vastly more per capita on mental health research than either France or the United Kingdom-or any other European Union countries.³ With that fact in mind, and given that research funding should not reflect the burden of disease but the expected return, the analysis of the return on investment from public- and nonprofit-sector investments in mental health research in the United Kingdom is of particular interest. A report on investment in medical research by RAND Europe noted that, for every £1.00 invested in mental health research, there would be an annual return in perpetuity of £0.37, or a rate of return of 37%,¹¹ while research in cardiovascular disease has had a lower return of 17%. This estimate took into account the specificities of mental health research, publication, and guideline development. The return on investment was estimated from the perspective of society, calculated as the increase in national income resulting directly and indirectly from health gains net of the health care costs of delivering them. While the use of national income as a perspective can be discussed in view of other stakeholders such as patients or professionals, it is useful for policy makers who decide on investments. Countries like the United States, the United Kingdom, and France spend between 20 and 80 times more on health care than on biomedical research-and only a few percent of that on mental health research. The recommendations of the RAND report combined with our findings support greater investment in mental health research. The World Health Organization has also advocated investment in mental health research, outlining the need for more informed policy decisions and highlighting the potential returns on investment.¹⁸ The strategic plan from the NIMH in the United States proposes a better understanding of efficient research.¹² There is evidence from the World Health Organization and the Cochrane database that low-cost and cost-effective interventions exist, so additional research funding in the European Union could fill the research gaps on improving access or provision of these interventions.^{19,20} The case we intend to make with these results is not for more funding for any type of research in mental health, but for funding targeted to research for which return on investment can be obtained from a better uptake of strategies with proven benefit.19

Although we have tried to be as accurate as possible in our estimations, there are a number of limitations to our analysis. We had to use a top-down allocation method in France, whereas a bottom-up method was used in the United Kingdom and the United States. No country had an accounting system that allowed precise determination of the total amount of money spent on mental health research, and we are potentially missing some funding sources. For example, in the United Kingdom, we were unable to obtain data about the National Institute for Mental Health in England, which was in operation in 2007 and undertook some research-based work. Furthermore, while we have identified National Health Service research and development transitional funding within England, we were unable to identify similar mental health-specific funding for National Health Service facilities in Wales, Scotland, or Northern Ireland. In the United States, we were not able to fully determine funding amounts for mental health research through the Department of Defense, which has increasingly become an important source of funding for mental health research. We were further limited in our estimations of research funding by several federal agencies for which our data source was the National Science Foundation. In France, the reporting of research institutions' budgets makes it impossible to rigorously allocate overheads and supplies to a specific research field; in a sensitivity analysis, we tested the robustness of the allocation key for research funding that is based on publication ratios.

We did not have access to information on funding from the pharmaceutical industry: a check of the Web site ClinicalTrials.gov in 2012 indicated that roughly three-quarters of the research in mental health concerned pharmaceuticals and was industry-funded. Commercial funding for medical trials went mostly (two-thirds) to North America and (one-sixth) to Europe. It can be assumed by extrapolating UK data that commercial funding for mental health/neurology is 3 times higher than public and charity funding together, but how much of this goes to nondrug research and specifically to mental health is not known.¹¹

Despite these limitations, we believe that our estimates are close enough to make some of the conclusions we report. Namely, the proportion of health research budgets that is spent on mental health research is low, given the burden of disease and also given the potential return on investment. The remaining question to explain is why, given the potential return on investment, funding for mental health research is low compared to other diseases. We hypothesized that the lack of new paradigms for innovative therapeutic strategies is a major explanation, along with disciplinary fragmentation in research and practice, stigmatization of mental illness, and lack of public awareness about the burden on society induced by mental disorders. A similar underfunding relative to health care spending and the burden of disease of other brain disorders, stroke, and dementia was noted in the United Kingdom.²¹ The RAND report also noted that, in comparison to investment in cardiovascular disease research, the benefits of investment in mental health research arise much later in time.11

Our advocacy for investing in mental health and in mental health research is timely because of the fear that the economic downturn will result in lower public spending, which would be paradoxical because of the link between poverty and mental health. There is need for greater investment in research into the causes, diagnosis, treatment, and rehabilitation of people with mental health needs, relative to the disease burden, overall health, and societal and economic effects of these conditions. This call has long been made: "The object of [mental health] research is no longer limited to finding new methods of diagnosis and treatment: the high ideal that can now be set is, as Sir David [Henderson] put it, to improve man in his social setting and so to obtain a saner world."^{22(p700)}

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Supplementary material: See Supplementary eTable 1 in accompanying pages.

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Research Funding for Mental Health

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Supplementary material follows this article.



Supplementary Material

- Article Title: Public and Nonprofit Funding for Research on Mental Disorders in the United Kingdom, France, and the United States
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List of Supplementary Material for the article

1. <u>eTable 1</u> Search Terms for Mental and Substance-Related Disorders

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Supplementary eTable 1. Search Terms for Mental and Substance-Related Disorders

Mental Disorders

Adjustment Disorders Anxiety Disorders Agoraphobia Neurocirculatory Asthenia Obsessive-Compulsive Disorder + Panic Disorder Phobic Disorders Stress Disorders, Traumatic + Delirium, Dementia, Amnestic, Cognitive Disorders Amnesia + Cognition Disorders + Consciousness Disorders Delirium Dementia + Dyslexia, Acquired + **Dissociative Disorders** Multiple Personality Disorder Eating Disorders Anorexia Nervosa **Binge-Eating Disorder Bulimia Nervosa** Coprophagia Female Athlete Triad Syndrome Pica **Factitious Disorders** Munchausen Syndrome Impulse Control Disorders **Firesetting Behavior** Gambling **Trichotillomania** Mental Disorders Diagnosed in Childhood

Anxiety, Separation Attention Deficit and Disruptive Behavior Disorders + **Child Behavior Disorders** Child Development Disorders, Pervasive + Communication Disorders + **Developmental Disabilities** Elimination Disorders + Feeding and Eating Disorders of Childhood + Intellectual Disability Learning Disorders + Motor Skills Disorders Mutism **Reactive Attachment Disorder** Schizophrenia, Childhood Stereotypic Movement Disorder Tic Disorders + Mood Disorders Affective Disorders, Psychotic + Depressive Disorder + Neurotic Disorders Personality Disorders Antisocial Personality Disorder Borderline Personality Disorder **Compulsive Personality Disorder Dependent Personality Disorder** Histrionic Personality Disorder + Paranoid Personality Disorder Passive-Aggressive Personality Disorder Schizoid Personality Disorder Schizotypal Personality Disorder Schizophrenia and Disorders with Psychotic Features

Capgras Syndrome

Paranoid Disorders

Psychotic Disorders +

Schizophrenia +

Sexual and Gender Disorders Disorders of Sex Development + Sexual Dysfunctions, Psychological + Sleep Disorders Dyssomnias + Parasomnias + Somatoform Disorders Body Dysmorphic Disorders Conversion Disorder **Hypochondriasis** Neurasthenia Substance-Related Disorders Alcohol-Related Disorders + **Amphetamine-Related Disorders Cocaine-Related Disorders** Inhalant Abuse Marijuana Abuse Neonatal Abstinence Syndrome Opioid-Related Disorders + Phencyclidine Abuse Psychoses, Substance-Induced Substance Abuse, Intravenous Substance Withdrawal Syndrome + Tobacco Use Disorder