INVITED:REVIEW



What Do We Know About Depression Among Youth and How Can We Make Progress Toward Improved Understanding and Reducing Distress? A New Hope

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Abstract

This paper summarizes many findings about depression among children and adolescents. Depression is prevalent, highly distressing, and exerts considerable burden worldwide. Rates surge from childhood through young adulthood and have increased over the last decade. Many risk factors have been identified, and evidence-based interventions exist targeting mostly individual-level changes via psychological or pharmacological means. At the same time, the field appears stuck and has not achieved considerable progress in advancing scientific understanding of depression's features or delivering interventions to meet the challenge of youth depression's high and growing prevalence. This paper adopts several positions to address these challenges and move the field forward. First, we emphasize reinvigoration of construct validation approaches that may better characterize youth depression's phenomenological features and inform more valid and reliable assessments that can enhance scientific understanding and improve interventions for youth depression. To this end, history and philosophical principles affecting depression's conceptualization and measurement are considered. Second, we suggest expanding the range and targets of treatments and prevention efforts beyond current practice guidelines for evidence-based interventions. This broader suite of interventions includes structural- and system-level change focused at community and societal levels (e.g., evidence-based economic anti-poverty interventions) and personalized interventions with sufficient evidence base. We propose that by focusing on the FORCE (Fundamentals, Openness, Relationships, Constructs, Evidence), youth depression research can provide new hope.

 $\textbf{Keywords} \ \ Youth \ depression \cdot History \ and \ philosophy \cdot Review \ and \ position \ paper \cdot Risks \cdot Treatment \cdot Personalized \ prevention$

Introduction

Over the last several decades, a prodigious literature has amassed on depression in children and adolescents. Major and consequential epidemiological findings show that (1) depression exhibits high prevalence and is associated with substantial distress and burden around the world (World Health Organization [WHO], 2017); (2) rates surge sixfold from childhood through late adolescence with steady, persistent rates throughout adulthood (Hankin et al., 1998, 2015); and (3) rates are increasing across generations, with

current prevalence rates exceeding those seen just 10 years ago (Daly, 2022; Jorm et al., 2017). As such, public policy experts recommend annual screening of depression for individuals ages 12 and above (USPSTF, 2022). In an effort to better understand (and interrupt) the development of depression across childhood and adolescence, researchers have identified numerous risk and resilience factors that prospectively predict depression (Hankin & Cohen, 2020). Indicated or selective preventions can reduce the likelihood of future depression for youth¹ with elevated symptoms or risk factors

¹ In the context of the present paper, "youth" is used to refer to school-aged children and adolescents, specifically, as much of the evidence and empirical emphasis of the literature to date has focused on these periods of development. We wish to note, however, that the ideas and suggestions promulgated in this paper may provide meaningful directions for efforts to improve research and intervention efforts targeting earlier periods of development (e.g., infancy,



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(Cuijpers et al., 2021a, 2021b). Moreover, there exist several evidence-based treatments, including psychotherapies and pharmacotherapies, each of which works generally equally well to relieve youth depression (Weersing et al., 2017). Table 1 enumerates what we know regarding risk factors for youth depression, and Table 2 summarizes knowledge of evidence-based interventions (treatments and preventions).

The field has accumulated an impressive corpus of knowledge. At the same time, however, it is an undeniable reality that many young people across the world continue to suffer from and with depression, and there is an urgent and critical need to address this suffering for as many people as possible. Consider global data, for example, which indicate that the age-standardized prevalence of depression increased by 4.2% from 1990 to 2013, whereas the prevalence of anxiety decreased by 0.5% over this same period (Global Burden of Disease Study, 2013 Collaborators, 2015). This depression rise has been accompanied by co-occurring increases in rates of treatment; yet, no country included in this global analysis showed diminished depression rates over this time period. Even with many empirically supported treatments, there has been little sustained progress in reducing depression's burden, or decreasing depression-related distress and suffering since 1980s. What can be done to address clear gaps to reduce the considerable and highly consequential distress and burden associated with youth depression?

The purpose of this paper is to revisit and critically interrogate how and what we think we know about youth depression and its interventions. To this end, we review the sociohistorical context in which the phenomena termed "depression" were conceptualized and highlight the ways in which our academic notions and "best practice" assessment instruments both do and do not align with the symptoms and features of this depression construct. In a similar manner, we consider contemporary prevention and treatment strategies and provide rationale for expanding the range and scope of intervention efforts to more efficiently and effectively respond to youth depression and prioritize structural- and systems-level change.

Ultimately, we strive to provide A New Hope for advancing progress on youth depression. To this end we take some positions (admittedly ours) for what we believe are directions and priorities that hold promise for *both* improving the scholarly understanding of youth depression *and* reducing depression-related distress and burden worldwide. We believe meaningful progress can be made without unduly

Footnote 1 (continued)

preschool age). That is, fundamentals, openness, relationships, constructs, and evidence are essential to improving our understanding of and capacity to respond to the needs of vulnerable young people across the lifespan.



devoting more time, energy, and limited resources investigating primarily unproven biological and technological solutions (e.g., certain biomarkers, Joober, 2022; Kapur et al., 2012; Winter et al., 2022; or innovative pharmacotherapeutics, such as psilocybin or other psychedelics; McClure-Begley & Roth, 2022) in the hope that some kind of singular breakthrough will meet massive current needs and close the prevalence-intervention gap.

As Darth Vader famously said in the original Star Wars: A New Hope (episode IV), "Don't be too proud of this technological terror you've constructed. The ability to destroy a planet, or even a whole system, is insignificant next to the power of the Force." Our perspective and the main points we emphasize can be summarized by focusing on the power of the FORCE: Fundamentals are essential to ground clear thinking informed by humility, history, and philosophy; Openness is needed to explore new ideas with scientific rigor and transparency; Relationships matter for understanding and intervening in youth depression across all levels in social-ecological systems; Constructs are key in the conceptualization, measurement, and classification of depression; and Evidence must be collected and evaluated, grounded in construct validation with epistemic iteration, to ensure accurate, reliable, reproducible knowledge with scientific and practical utility.

In this paper, we have three main goals. First is to provide an overview of what the field knows about depression among youth, via Table 1 for depression risks across ecological levels and Table 2 for interventions. All of this knowledge is grounded in how depression as a construct is currently, and has historically, been conceptualized and measured. Our second goal is to reinvigorate serious academic progress focused on defining and explicating conceptually what depression is among youth as informed by developmental psychopathology. As we summarize in our historical review, necessary and important steps in the construct validation process (content conceptualization; measurement) were minimally engaged in the study of adult depression, and this incomplete conceptual understanding has carried forth in the study of depression among youth. Our final goal is to address immediate needs to reduce the prevalence and distress associated with youth depression. We propose ways for responding to unmet needs of youth at risk for and affected by depression, as well as their families and communities. We begin with an eye toward how we might improve the science of youth depression, with an emphasis on issues of methods, measures, and construct validity. We then propose directions to enhance interventions to alleviate the prevalence and distress of youth depression and suggest efforts that engage multiple ecological systems and stakeholders.

Table 1 Summary of youth depression risks and maintenance factors

Risk groupings	Risk/maintenance factors	Representative reviews, meta- analyses, and/or epidemiological studies
Political, economic, and cultural factors	 Political instability/violence Exposure to armed conflict Structural racism and other forms of identity-based oppression Income inequality Poverty Food and/or housing instability 	 Bendavid et al. (2021) Dimitry (2012) Slone and Mann (2016) Paradies et al. (2015) Dürrbaum and Sattler (2020) Pellicane and Ciesla 2022) Lund et al. (2018) Patel et al. (2018)
Childhood maltreatment	 Emotional/psychological abuse Physical abuse Sexual abuse Neglect 	Infurna et al. (2016)LeMoult et al. (2020)
Family environment	 Increased negative parenting (e.g., caregiver withdrawal, hostility, overinvolvement) Decreased positive parenting (e.g., caregiver warmth and support) Family/interparental conflict Parental mental illness 	 McLeod et al. (2007) Yap et al. (2014) Harold and Sellers (2018) Rasic et al. (2014) Lieb et al. (2002)
Interpersonal/peer environment	 Peer victimization/bullying Dating violence Interpersonal conflict and other forms of interpersonal stress Social isolation/loneliness 	 Christina et al. (2021) Exner-Cortens et al. (2013) Hammen (2005) Dunn and Sicouri (2022) Loades et al. (2020)
Other major environmental stress	Natural disastersPandemic/pandemic-related restrictions	Rubens et al. (2018)Samji et al. (2021)Viner et al. (2022)
Interpersonal vulnerabilities	 Insecure attachment Negative feedback seeking Excessive reassurance seeking 	Spruit et al. (2020)Wakeling et al. (2020)
Behavioral vulnerabilities	Sleep difficultiesSubstance use	Lovato and Gradisar (2014)Cairns et al. (2014)
Cognitive vulnerabilities	Negative inferential styleDysfunctional attitudesRumination	Abela and Hankin (2008)Schweizer and Hankin (2020)Aldao et al. (2010)
Emotional/temperamental vulnerabilities	 Low positive affect/positive emotionality High negative affect/negative emotionality Low effortful control 	Khazanov and Ruscio (2016)Compas et al. (2004)Snyder et al. (2015)
Biological vulnerabilities	 HPA dysregulation Inflammation Aberrant patterns of neural connectivity Structural/volumetric differences in limbic and prefrontal brain regions Functional/activation differences in limbic and prefrontal brain regions 	 Lopez-Duran et al. (2009) Zajkowska et al. (2022) Colesanto et al. (2020) Toenders et al. (2022) Forbes (2020) Hulvershorn et al. (2011) Kerestes et al. (2013)

The above list is not meant to be comprehensive, but rather an illustrative collection of factors that have been found to robustly correlate with youth depression in systematic review, meta-analytic, and/or large-scale epidemiological studies. It is also important to note that although we organize risks in distinct categories for ease of interpretation, it must be emphasized that risk factors dynamically interplay with one another in complex ways, and no single risk factor is likely to be necessary or sufficient to explain the onset and maintenance of depression (Hankin, 2012). As articulated by decades of research in developmental psychopathology, risk for youth depression is multifactorial and overdetermined in nature (Cicchetti & Rogosch, 2002; Rutter & Sroufe, 2000)

What Is Depression and What Do We Know About It?

For optimal conceptual clarity, we explain and unpack what we mean by specific terms, especially "depression," among children and adolescents. We define the term "depression" as a construct, i.e., a complex concept intended to synthesize varied components into a cohesive "thing," one which cannot be directly measured but is inferred from available data. This latent entity is capable of organizing features



Table 2 Summary of evidence-based interventions to reduce youth depression

Treatment			
Intervention Type	Strength of Evidence (ES = Effect Size; CI = Confidence Interval; SMD = Standardized Mean Difference; CrI = Credible Interval)	Notes	
Cognitive Behavioral Therapy (CBT)	ES based on 34 studies = .31 (95% CI = .18 to .44) ^a	Effect size estimates reflect efficacy based on RCTs evaluating interventions for youth with depressive disorders as well as elevated depressive symptoms.	
Interpersonal Psychotherapy (IPT-A)	ES based on 5 studies = .78 (95% CI = .43 to 1.13) ^a	Effect size estimates reflect efficacy based on RCTs evaluating interventions for youth with depressive disorders as well as elevated depressive symptoms	
CBT + Other Intervention (e.g., family education, relaxation training)	ES based on 7 studies = .45 (95% CI = .22 to .69) ^a	Effect size estimates reflect efficacy based on RCTs evaluating interventions for youth with depressive disorders as well as elevated depressive symptoms	
CBT + Fluoxetine	SMD = -0.73 (95% CrI = 73 to 07) ^b	Effect sizes estimates reflect standardized mean difference scores for depressive symptoms from baseline to treatment completion based on RCTs evaluation interventions for youth depressive disorders	
Fluoxetine monotherapy	SMD= $-0.51 (95\% \text{ CrI} =84 \text{ to}18)^{\text{b}}$	Effect sizes estimates reflect standardized mean difference scores for depressive symptoms from baseline to treatment completion based on RCTs evaluation interventions for youth depressive disorders	
Other SSRI's	Not supported ^{b,c}		
Prevention			
Intervention Type	Strength of Evidence	Notes	
Targeted/Selective CBT	ES based on 9 studies = .30 (95% CI = .06 to .55); insufficient evidence to support reduced incidence of depressive disorder at follow-up ^d	Effect sizes reflect efficacy based on RCTs evaluating preventions for youth with subthreshold depression compared with controls; follow-up periods ranged from 6 to 18 months	
Targeted/Selective Other (e.g., IPT-A)	ES based on 4 studies = .58 (95% CI =36 to 1.51); insufficient evidence to support reduced incidence of depressive disorder at follow-up ^d	Effect sizes reflect efficacy based on RCTs evaluating preventions for youth with subthreshold depression compared with controls; follow-up periods ranged from 6 to 18 months	
Universal Prevention	Not supported ^{e,f}	- 0	

We direct interested readers to Eckshtain et al. (2020) for further details regarding theoretically relevant moderators of treatment effects (e.g., control condition, treatment setting, etc.). In a similar manner, we direct readers to Zhou et al. (2020) for further details regarding antidepressant drug trials among children and adolescents. Current clinical practice guidelines including a comprehensive synthesis of the current body of knowledge is provided in Walter et al. (2022). The evidence base for psychological treatments for child and adolescent depression is also reviewed in Weersing et al. (2017). Further details regarding moderators of prevention effects can be found in Cuijpers et al. (2021a)

and processes that cannot be directly observed. We use the terminology of "constructs," as is typical in psychological science (e.g., Borsboom et al., 2004; Cronbach & Meehl, 1955; Messick, 1987), and these constructs are defined and identified within their nomological networks (Cronbach & Meehl, 1955).

Tables 1 and 2 (and other exemplary expert reviews; e.g., Herrman et al., 2022; Thapar et al., 2022) synthesize the

state of knowledge in depression among youth. This summary is based predominantly on modern DSM/ICD perspectives that have primarily conceived of depression as a categorical disorder with philosophical grounding in hard realism. Hard realism states that entities have real essences in nature that provide clear boundaries that separate and can categorize entities (Kendler et al., 2011). For example in the periodic table from chemistry, a paradigmatic example is



^aEckshtain et al. (2020)

^bZhou et al. (2020)

^cWalter et al. (2022)

^dMerry et al. (2004)

eCaldwell et al. (2019)

gold as an element, in which gold's 79 protons (its atomic number) constitute a real essence that separates this element from all other elements. Analogously for psychological disorders, such as depression, hard realism implies the existence of simple, unifying etiological causes (e.g., genetic or brain dysfunctions), and knowing depression's essential causes enables clear categorization from other psychopathologies. Searching for biomarkers via novel, emerging technologies makes sense when depression is conceptualized through this lens of hard realism in which disorder is believed to be an essential kind. Yet, leading philosophical scholars cogently argue that psychopathological disorders, such as depression, are not essential kinds and do not possess any real essence. Instead, such philosophers assert that depression exhibits characteristics of either soft realism (e.g., as in the case of biological species) with fuzzy boundaries and conflicting conceptualizations, or as a practical kind, based on an instrumentalist approach to science that is pragmatic and avoids deep ontological claims (Kendler, 2022).

A Brief History of Depression Over Time: Classification and Its Discontents

What we know about youth depression is grounded in a set of assumptions (e.g., is depression of hard or soft realism, or a practical kind?) and a set of historical events occurring in a particular social-political context. These assumptions and history, both of which are rarely examined, have exerted outsized influence and largely set the mold in which the conceptual contours and measurement of today's youth depression have been cast. Starting in the mid-late 1970s and persisting into the present, many key notions and assumptions about "what depression is" have largely been determined by particular clinical authorities, and their scholarly conceptions of depression have been concretized and operationalized in an interrelated set of systems and classifications, including the DSM and ICD. These official nosologies dominate how nearly all mental health scholars and applied workers across numerous disciplines think of depression, define it as a syndrome, picture and envision diagnosis, and use assessment instruments. These notions and assumptions then inform the measurements that comprise the data that formatively affect our body of knowledge regarding youth depression. As such, much of what we know about youth depression, including its prevalence and developmental trajectories, comorbidities, risks, and interventions are filtered through a particular contextual lens shaped by philosophical principles and specific historical events. Appreciation for this historical and philosophical undergirding can bring greater understanding of our present knowledge base, as summarized in Tables 1 and 2.

In this section, we discuss how key historical events over the last century provided a particular context that affected who the field has regarded as primary clinical experts, and shaped how these authorities chose to conceptualize and operationalize depression via particular signs and symptoms. In contemporary research and practice, these authorities' decisions have largely been uncoupled from the sociohistorical context in which they emerged, yet still these specialists and their beliefs continue to dominate our conceptual and applied understanding of depression (Kendler, 2017; Kendler et al., 2010). With the dominance of modern DSM in mind, consider the following observation noted by an eminent biological psychiatrist who values ongoing study of phenomenology in psychopathology:

DSM-III and its successors... became universally and uncritically accepted as the ultimate authority on psychopathology and diagnosis. DSM forms the basis for psychiatric teaching to both residents and undergraduates throughout most of the United States.... Because DSM is often used as a primary textbook or the major diagnostic resource in many clinical and research settings, students typically do not know about other potentially important or interesting signs and symptoms that are not included in the DSM.... Validity has been sacrificed to achieve reliability. DSM diagnoses have given researchers a common nomenclature—but probably the wrong one. (emphasis added; Andreasen, 2007, p. 111).

Our perspective builds on others' recent work in similar areas, including works emphasizing fundamental philosophical principles (e.g., Aftab et al., 2021; Kendler, 2022; Kendler and Zachar, 2019), historical overviews (e.g., Clark et al., 2017; Harrington, 2019), constructs (e.g., Bringmann et al., 2022; Hayden, 2022), and measurement (e.g., Fried et al., 2022; Haslbeck et al., 2021). We recommend to interested readers these excellent published pieces. Nearly all focus on adults. There exists far less literature pertaining to critical history and philosophy relevant for conceptualizing and measuring depression specifically among children and adolescents. This is a clear gap in the literature and field's understanding, as such knowledge from adults should not be uncritically adopted in developmental downward extensions to children and adolescents. As we discuss later, these underexamined developmental downward applications of such fundamental concepts and principles can have unintended consequences when principles and practices are applied "top down" with less focus on complementary "bottom up" perspectives from phenomenological and developmental sciences.

The views and perspectives affecting depression's definition and measurement result from a set of historical conditions that are deeply intertwined with changing political and institutional values and priorities. Funds for research and professional training in clinical psychology and psychiatry

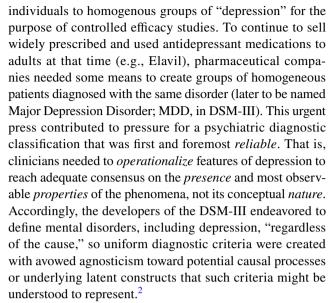


were first made possible by the passage of the American Mental Health Act in 1946, shortly after the end of World War II. Shortly thereafter, the National Institute of Mental Health (NIMH) was created with Robert Felix as its founding director, and they emphasized the social roots and consequences of mental health. At the point of its inception, the NIMH concentrated significantly more funds on research connecting mental illness with social determinants of health including poverty, social isolation, poor education, overcrowding, and violence compared with biological or medically focused risks and correlates. This history suggests that the contemporary, medicalized conceptualizations of depression were not a necessary, logical eventuality or even a product of naturalistic scientific progress.

Continuing this history and its impact on classification for psychopathologies, including depression, consider several well-intentioned changes implemented by the United States government and Food and Drug Administration (FDA) during the 1960s–1970s. Specifically, the Kefauver–Harris Amendment of 1962 required that medications needed to demonstrate empirical evidence for their safety and efficacy in terms of treating a specific disease in order to be sold. Then in the 1970s, the FDA mandated that efficacy testing of new drugs required controlled clinical trials. For the growing psychiatric pharmaceutical industry, these novel mandates introduced a new conundrum. If controlled clinical trials required diagnostically homogeneous patients, and no physiological tests existed to definitively establish the presence of psychopathology, how could researchers ensure that participants in a psychiatric clinical trial all share the same disorder? Herein laid the essential problem: No reliable psychiatric diagnostic classification system existed in the 1970s!

A predominant reason for poor reliability in psychiatric diagnosis was the dominance of psychodynamic paradigms in psychology and psychiatry during the 1960s and early 1970s. According to these psychodynamic theories, psychopathology reflects varied intrapsychic conflicts resulting from unconscious drives and impulses and disturbances in early psychosocial development. The leading psychodiagnostics manual in the 1960s-1970s—the Diagnostic and Statistical Manual, Second Edition (DSM-II; 1968)—was an administrative manual grounded in abstract psychodynamic theory. There was little interest in the symptoms themselves and the ways in which they might be organized into coherent syndromes or disorders. Within psychodynamic practice and tradition, depression symptoms were conceptualized and explained as defense against anxiety (the core of all "psychoneurotic disorders"). In other words, psychodynamic conceptual models viewed depression as an expression to cope with underlying anxiety, rather than a phenomenon onto itself that required inquiry and understanding.

Yet, the novel FDA regulations of the 1970s required some simple, straightforward, and reliable way to assign



Instrumental in the early development of an approach toward improving the reliability of classification of psychiatric disorders was a small group of clinical scholars (e.g., psychiatrists, psychologists) from the psychiatry department of the Washington University in St. Louis. This group of scholars, who were named "neo-Kraepelinians," believed that the development of diagnostic criteria for the classification of mental illness was a valuable and legitimate enterprise. The neo-Kraepelinians thought that the abysmal inter-rater diagnostic agreement noted in voluminous studies from the 1970s could be solved via the creation of operationalized diagnostic criteria and the use of standardized symptom checklists. Feighner led the group in developing diagnostic criteria proposals and checklists (known as Feighner Criteria (Feighner et al., 1972), which influenced Research Diagnostic Criteria (RDC; Spitzer et al., 1975) and then ultimately the officially approved and recognized DSM-III (APA, 1980). In contrast to earlier versions of the DSM (I and II) which were guided by psychodynamic perspectives, the DSM-III aimed to inform the diagnosis of discrete disorders using observable symptom-based criterion, representing a radical shift in clinical approaches to diagnosis and classification. The practical operationalization system formally introduced by the DSM-III permitted researchers and clinicians to use a systematic approach to assemble potentially



² We will proceed to discuss several key events and players involved in the development of the model DSM as it relates to youth depression; however, for more information regarding the history of the DSM, we direct interested readers to several excellent reviews in this area (Blashfield, 1984; Blashfield et al., 2014; Clark, Cuthbert et al., 2017; Frances & Widiger, 2012; Horwitz; Kendler, 2016, 2017; Wilson, 1993).

disparate symptoms into discrete diagnoses with improved reliability.

An important philosophical piece in this history of the early developments leading to DSM-III is that the neo-Kraepelinians intended the symptom criteria they proposed for each disorder (which were then instantiated into DSM-III) to represent a hypothetical diagnostic construct. The psychiatrists at Washington University did not intend nor believe that the symptom lists they proposed for each diagnosis were meant to sufficiently and literally constitute the disorder in an explicit one-to-one manner (Kendler, 2017). Rather, the influential neo-Kraepelinians believed that depression and other disorders are hypothetical constructs, so these psychiatrists also developed and proposed an initial set of validity criteria (known as "Robins & Guze criteria"; Robins & Guze, 1970). Their underlying assumptions for these validity criteria were grounded in a biological psychiatric medical model, not the psychodynamic theories still predominant in the 1970s, nor other possible conceptual frameworks (e.g., social determinants of health as originally supported by Robert Felix at the start of NIMH). Their views and decisions presumed that depression and other disorders are "essential kinds" in nature and were intended to mirror other medical disorders in other branches of medicine (Blashfield, 1984).

What relevance does this history have for the conceptual definition and measurement of the construct of depression today and going forward? This historical context provides the framing in which modern priorities, principles, and beliefs were first set, and understanding these prequels provides important background to explain how and why the dominant DSM/ICD became substantiated as the official classification system. Taken together with its implicit emphasis on essentialism and biological psychiatry, the modern DSM system and this biological framework have driven most basic and applied research since the early 1980s. This forms the bedrock foundation for most of the current knowledge on risks and interventions for depression among adults, adolescents, and children. The neo-Kraepelinians broke new ground by creating consistent symptom checklists intended first to increase reliability of psychopathological disorders conceived as discrete diagnoses. The shifting in the set of assumptions emphasizing biological predominance reflected the neo-Kraepelinians' beliefs that psychiatry ought to investigate biological causes and treatments of discrete mental illnesses and should position itself as a modern, scientific branch of medicine. This small group of influential authorities at Washington University exerted a tremendous impact on DSM-III and subsequent nosological successors (e.g., currently DSM-5). For these reasons, it behooves us to understand how the neo-Kraepelinians' assumptions and beliefs affected depression and other disorder definition,

conceptualization, measurement, and then interpretation of data for eventual knowledge generation.

Also breaking from the predominant psychodynamic perspective, a few clinical scholars (e.g., Beck, Hamilton) in the mid-late 1960s developed standardized checklists to measure some depression symptoms with adults. These measures (Beck Depression Inventory; Hamilton Depression Rating Scale) reflect each author's conceptualization of depression based on their observations of particular depression phenomena in different contexts and settings. Hamilton created the HDRS in 1960, for example, drawing on his knowledge and experience with already diagnosed severely depressed hospitalized inpatients, and he emphasized observable indicators such as psychomotor retardation (including slower speech) and weight loss relatively more so than self-reported symptoms. It is notable that the HDRS has remained the gold-standard depression clinical ascertainment for randomized control trials (RCTs) in adults over the last 60 years and is used in about 90% of antidepressant drug trials (Cipriani et al., 2018). The development of the HDRS can be contrasted with that of the Beck Depression Inventory (BDI), for instance, which was informed by Aaron Beck's evolving cognitive theory of depression, and accordingly, placed relatively more emphasis on individuals' self-reported affective and cognitive experiences.

These and other depression measures offer divergent conceptualizations of what the depression construct is. These differing conceptualizations were grounded in each clinical scholar's own beliefs, phenomenological observations, and emphases, as well as the larger social and philosophical contexts in which these experts learned and worked. Given such widely divergent conceptual notions and histories, it therefore is not surprising to learn that empirical correlations among these and other depression scales are small to moderate (r's ranging from 0.2 to 0.5). With this degree of small-to-moderate convergent validity, one cannot assume that different depression instruments equivalently assess the same construct of "depression." With the discrepant conceptual and substantive content between different measures, the various depression assessments are not interchangeable. It is important to align practical, psychometric, and conceptual practices.

We need to be reminded that the ways in which we construe depression are a product of both the phenomenology and characteristics of depression as well as the limitations imposed by our theories and methods.... This has resulted in a situation where a great deal of what we think we know about depression in children and youth may not be about depression as such. (Hammen & Compas, 1994, pp. 586–588)

When it comes to assessing depression among youth, the state of knowledge and measurement practice has lagged



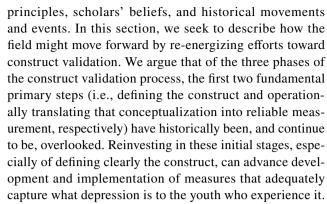
behind that of adult depression. Prior to Kovacs developing the Children's Depression Inventory (as a downward extended youth-modification of the BDI) in 1977, for example, few scholars believed that children could be depressed. Indeed, the dominant beliefs and theories of the time held that (1) children are generally happy and show little persistent sadness, (2) youth lack mature social or emotional or cognitive structures deemed necessary for depression, and/or (3) kids manifest behavioral conduct problems (not primary depression-like symptoms as presenting problems or concerns) as a syndrome labeled "masked depression" (e.g., Cantwell, 1982; Strober & Werry, 1986). Even as youth depression slowly emerged as a topic of independent inquiry in the late 1970s, few developmental adaptations were considered. Indeed, when it came time to define the content, symptoms and criteria sets for childhood depression for DSM-III, historical writing suggests that key decisions were made based on predominantly entrenched beliefs around adult depression (Strober & Werry, 1986). It was largely assumed that youth depression comprised the same symptoms, expressed in the same way, as adult depression, and as a result, diagnostic criteria for depression among children and adolescents in DSM-III were asserted to be nearly the same as those for adults. Once the official psychiatric classification system authoritatively asserted this set of criteria defining depression in youth, the conceptual definition of youth depression as a construct as well as its measurement were established, and later reinforced and reified. Many youth depression assessments were created by translating adult conceptualizations and measurements downward to children and adolescents (e.g., Kendall et al., 1989; Klein et al., 2005; Weiss & Garber, 2003).

So much depends on how scientists conceptualize the problems they work on. Observations lead to interpretations. Interpretations become concepts. And concepts may become dogmas that feel so intuitive, so natural, that they are accepted without question. We should, from time to time, re-evaluate the core beliefs of our fields of study. (Rust & LeDoux, 2023, p. 4)

We believe it is time to reconsider and revise (to the extent needed) how youth depression is conceptualized, rather than reflexively perpetuate the initial conceptual system of DSM-III that barely questioned and evaluated depression developmentally.

Construct Validity of Currently Oft-Used Depression Measures

As we elaborated in the previous section, the way in which depression is conceptually defined and measured today emerged as a function of a specific set of philosophical



Implementing psychometrically sound measures starts with sufficient coverage of the key conceptual content. As there exist many ways to gauge construct validity, we focus here on internal structural aspects of depression assessments. Our review considers the degree to which the commonly used instruments may be covering and capturing important content, signs, symptoms, and features of the depression construct as phenomenologically observed and described by youth and other informants (e.g., caregivers, teachers, providers) with most direct access to children's depression features.

Evidence to date suggests that DSM's operationalization of the depression construct does not adequately capture and index many features of depression most salient to youth's phenomenological experiences. For example, in large school-based community samples of Brazilian adolescents aged 14-16 years, researchers used network analyses of self-reported symptoms to evaluate the structure and centrality of depression symptoms to understand which symptoms tend to correlate with other another and are most densely connected with other symptoms (Manfro et al., 2021). Certain symptoms that are not captured in current DSM-based criteria, such as loneliness and self-hatred, were among the most interconnected, central, and frequently reported facets of depression, alongside DSM-based symptoms of sadness and worthlessness. These findings among a non-clinical sample of adolescents recruited from the general community align with research examining adult depressed patients, who endorse therapeutic priorities focused on improved self-esteem, as well as reduced loneliness and social isolation (Chevance et al, 2020). Manfro and colleagues' network analysis also showed that hopelessness (not a core DSM MDD feature, but an accessory symptom in ICD-11) served as a highly central symptom of adolescent depression, consistent with adult work finding that hopelessness reliably differentiates depressed from non-depressed participants (McGlinchey et al., 2006). Surprisingly, anhedonia, one of the cardinal, criterial symptoms for MDD according to the DSM, was not highly interconnected with other depression symptoms.



This pattern of findings reinforces our proposition that the conceptualization of depression, as described by modern DSM (III through 5), insufficiently reflects the construct of depression as youth experience their symptoms. Moreover, the content of any given depression scale is often quite different from that of another. An analysis of eighteen youth depression instruments found that 52 separate symptoms were included, and these scales only comprised around 50% of the symptoms needed for MDD diagnosis according to DSM. Low content overlap was also observed across the measures, as only 29% of symptoms coincided across scales (Vilar et al., 2022). This heterogeneity of assessments extends to RCTs for adolescent depression treatment: 19 different outcome measures were used in 30 trials according to one recent review (Mew et al., 2020).

Understanding of the construct of depression as phenomenologically experienced by depressed individuals is underdeveloped. Recent qualitative research conducted among an international sample of depressed adults, as well as their providers and caregivers, indicates that features of mental/psychological pain (described often as "torture," or "suffering") were the most frequently endorsed and experienced, followed by anxiety and sadness (Chevance et al., 2020). It is notable, however, that none of the most commonly used depression assessments actually measure mental pain as a particularly important feature. Unfortunately, the commonly used depression measures do not cover some of this important phenomenological content that appears to comprise features of depression of primary concern to youth.

Applying the FORCE to Improve Understanding of Youth Depression

The conceptualization and measurement of depression has evolved over time, and contemporary notions of depression as a construct can be understood in the context of the theoretical, social, and political histories from which these notions emerged. Across all current measures of depression, there tends to be a central constellation of specific symptoms and features (e.g., hopelessness, sadness, apathy) that most likely captures core features of the depression construct and explains the moderate intercorrelations among measures. Also, the most used depression measures exhibit considerable heterogeneity in content coverage. Last, the most used measures do not capture important features of depression (e.g., mental pain) that figure prominently in individuals' phenomenological experience. In our view, the construct of depression should not be defined merely, exclusively, and isomorphically in terms of the scales we use to measure it. Our proposed positions to improve the science of youth depression are organized in terms of the FORCE.

Fundamentals

Meaningful, replicable, and interpretable science, especially in applied areas like youth depression, requires reliable and valid measurement with clinical utility. Before investing further in advanced technologies and biological strategies to provide novel insights into the causes and correlates of youth depression—technologies and strategies that to date have yielded largely unreliable and inconsistent findings (e.g., Joober, 2022; Kapur et al., 2012)—we encourage clinical researchers to consider the assumptions upon which measures and models are built and to re-engage with the fundamental (if often frustrating) challenge of articulating the parameters of the problems we are trying to understand. What are the core features of youth depression? What are the experiences youth describe? What does youth depression look like to parents and caregivers? How can these features inform our efforts to develop measures that facilitate enhanced understanding, as well as early detection and intervention? Meaningful progress can be made by producing and disseminating measures that are optimally valid, reliable, and culturally responsive for the needs of contemporary and future young people and those in their communities.

Openness

Revisiting these fundamentals will necessarily require openness. We must be open, for example, to embrace research paradigms that have not been mainstream approaches in clinical psychological science, such as qualitative methods aimed at enriching descriptive understanding of youth depression as observed and experienced by various stakeholders. We agree with Sir Michael Rutter who commented, "I think on the one hand you have to have quantitative analysis, but on the other hand qualitative research has a role to play as well, although I think it would be a mistake to say that simply counting quantities is an answer in itself. Understanding is definitely helped by qualitative studies" (Rutter & Werker, 2021). Indeed, as our history highlights, rich descriptive and exploratory work is fundamental to inform testable hypotheses and generate new knowledge that can advance the field.

We also encourage openness to novel conceptualizations of psychopathology that extend beyond current DSM-based nosologies. The Hierarchical Taxonomy of Psychopathology (HiTOP) Consortium (e.g., Kotov et al., 2021), for example, provides a promising framework that illustrates how the field can employ stages 1 and 2 of the construct validation process to better understand and organize surface-level signs and symptoms of youth depression, and reimagine the ways in which we conceptualize and structure psychopathology. HiTOP's approach is focused on descriptive psychopathology and empirical analyses of

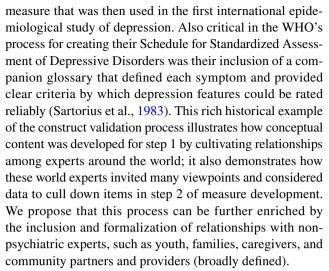


surface-level phenomenological signs and symptoms. The HiTOP framework is consistent with many proposals in this position paper. HiTOP has begun to develop and test empirical measures using modern construct validation techniques, albeit largely with adults to date (e.g., Clark et al., 2023; Simms et al., 2022; Watson et al., 2022). Last, and importantly, HiTOP contains a committee and structure that formally, openly, and transparently considers and evaluates revisions to the organization and structural model based on ongoing research and evidence (Forbes et al., 2023; Kotov et al., 2022; Ringwald et al., 2021). HiTOP also includes a committee focused on developmental applications and considerations, and work in this developmental HiTOP committee is in progress (e.g., Nelson, et al., 2023).

Openness also extends to how we conduct our science. Values of transparency and principled, intentional decision-making are needed to guide construct validation efforts. Moreover, by engaging with science as an iterative, ultimately *communal* process by which knowledge is shared and collectivized, it is our hope that scholars motivated by open science practices might accelerate progress toward a more valid and reliable science of youth depression.

Relationships

Concretely illustrating such a communal process, the World Health Organizations' (WHO) international process for depression instrument development provides an excellent example showing how interdisciplinary collaborations and conversations among different working groups can advance fundamental conceptual understanding of what constitutes the depression construct and how best to operationalize such information into measurement (e.g., Fulford & Sartorius, 2009; Sartorius et al., 1974, 1980). In the 1970s, the WHO began work to create a standardized assessment that could be used around many countries to estimate adult depression prevalence worldwide. Doing so was an enormous, challenging task, especially because different countries had very different ways of defining and measuring adult depression, as there existed no uniform worldwide psychiatric classification system. As a result, the WHO realized that a necessary first step toward providing these essential epidemiological data was to develop an assessment tool that investigators around the world could agree on and then be used to reliably cover the main depression features across countries and cultures when implemented in the field worldwide. The WHO formalized regular international meetings with expert mental health workers from around the world who provided phenomenological summaries of depressed patients, and reviewed audio and video tapes of clients. These relatively inclusive, regular meetings enabled world-leading clinical scholars to generate the symptoms lists that were eventually included in the WHO's depression checklist interview



The cultivation and maintenance of collaborative intraand inter-professional and personal relationships is vital to realizing the goals emphasized in this position paper. To improve content understanding of youth depression, for example, we must meaningfully and reciprocally engage with individuals who have experienced depression (either directly, in the case of youth, or indirectly, in the case of caregivers and providers), and reflect with humility in recognizing the bounds of our own expertise and constructlevel understanding. A deeper conceptual understanding of youth depression can be enhanced through conversation and coordination with developmental scientists and others from interdisciplinary, allied fields.

We must also maintain critical and reflective relationships with ourselves and our histories (Rodriguez-Seijas et al., 2023). Psychological science and construct conceptualization do not emerge in an intellectual vacuum. They often reflect common sense folk accounts and ideas (Mandler & Kessen, 1959), which are then informed by specific theoretical paradigms, philosophical principles, and sociohistorical circumstances. Pausing for such reflection sets the stage to enable clinical scholars to interrogate assumptions undergirding work and examine the role our own preconceptions, paradigms, and positionality play in informing questions asked, methods employed, and interpretations made (Rodriguez-Seijas et al., 2023).

Constructs

At the risk of belaboring the point, the production and dissemination of meaningful and impactful science depend on reliable and valid measures to assess conceptually based constructs. Understanding, detection, prevention, and intervention with respect to youth depression may be improved to the extent that the construct validation process is re-energized, and measurement efforts are reinvigorated. We believe that these goals are aligned with proposals and



current efforts to use more ecologically valid digital phenotyping (e.g., sensors, smartphones, experience sampling methods) that enable youth and informants to monitor and rate their experience over time, contexts, and across units of analysis (e.g., Hitchcock et al., 2022). Deep phenotyping can provide enhanced information on sleep, various affects and emotions, reports of mental and physical pain, movement, exercise and activity, concentration and distraction, as well as social connection to ascertain what youth are doing (e.g., social media, games, substance use, etc.) and with whom (e.g., peers, family). Such efforts may have dual benefits for the future of the field. Deep phenotyping can both inform construct conceptualization, as well as facilitate the identification of ecologically valid, malleable targets and mechanisms to intervene on youth distress.

Evidence

Progress in the conceptualization and measurement of youth depression must be based on strong evidence. Moreover, it is important that epistemic iteration drives knowledge generation so that the field's evidence base dynamically evolves with the production of more developmentally and culturally informed measures. It will be important to engage diverse populations of youth, as well as their caregivers, teachers, and providers at each stage of the construct validation process. All involved should remain reflective and transparent about to whom and the extent to which evidence may generalize.

What Do We Know About Interventions for Youth Depression?

Efforts to improve the conceptualization and measurement of youth depression must occur alongside work to improve its detection, prevention, and treatment. Youth struggle with and from depression, and there continues to be need for better, more accessible interventions.³ Thus, we shift attention to review what is known regarding evidence-based interventions for youth depression (see Table 2) before describing how the FORCE may be applied to propel the field forward.

In a meta-analysis summarizing treatment effects for youth interventions over the past 50 years, Weisz and colleagues (2017) reported an overall mean effect size (ES)=0.46 compared to control condition for all youth mental health problems, indicating that treatments yield moderate improvements, on average, in youth mental health. Notably, however, treatments for youth depression, specifically,

were found to be generally less effective in yielding symptom improvement (ES = 0.29) relative to interventions for anxiety (ES = 0.61) and other conditions. Moreover, after synthesizing the literature, Weisz and colleagues (2017) concluded that therapy effects have not improved over the past 50 years. Further, estimates indicate that fewer than 50% of depressed adolescents in the United States receive care for their symptoms (Avenevoli et al., 2015; Forman-Hoffman et al., 2016; Lu, 2019), and racial and ethnically minoritized youth encounter disproportionate barriers to mental health care relative to their non-Hispanic white peers (Alegría et al., 2008; Lu, 2019; Yeh et al., 2003). Globally, the WHO (2017) finds that mental health needs far exceed the availability of mental health workers around the world, with individuals in lower-resourced settings facing particular difficulty accessing adequate care.

Taken together, results of this work paint a sobering picture regarding the field's present capacity to adequately respond to the challenges of youth depression: Treatments are (at least on average) only modestly effective in reducing symptoms and are only reaching a limited number of youth. Further complicating this picture, there are currently not enough well-trained mental health providers of evidence-based psychotherapy to meet the massive current or anticipated future needs. It is unlikely that the needs of distressed youth can be completely met even with an expanded base of well-trained mental health providers.

Psychopharmacological interventions are also commonly used to treat youth depression, and antidepressant medications have been approved by the FDA for the treatment of depression among adolescents ages 12 and older. The American Association of Child and Adolescent Psychiatry recommends the use of selective serotonin reuptake inhibitors (SSRIs), preferably fluoxetine, as a first-line treatment for depression (Walter et al., 2022). It is notable, however, that use of antidepressant medications can be associated with side effects and other risks. For example, the FDA issued a "black box" warning in 2004 cautioning that use of SSRIs among youth may increase the risk of suicidality.

Intervention efforts need not wait until youth experience the onset of a depressive disorder. Preventative interventions aim to reduce the likelihood that youth experience depression in the future and represent one means to proactively reduce youths' prospective risk for depression-related suffering (Heckman, 2011; Lee et al., 2017; Mihalopoulos & Chatterton, 2015). Systematic and quantitative reviews reveal modest to small effects (pooled SMD = 0.16 [0.07–0.26]; Ormel et al., 2020) for psychological or educational interventions for preventing depression across multiple settings (e.g., schools, health care, community) and populations. Generally, effectiveness is higher for preventive interventions targeting youth at risk (selective) or with elevated subsyndromal depression (indicated). Estimates indicate



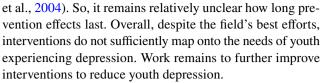
³ We use "intervention" to refer to both prevention and treatment efforts.

that selective and indicated prevention reduce depression incidence by 20–25% (Ormel et al., 2020).

Universal prevention efforts exhibit much smaller effect sizes. Several school-based cognitive behavioral or interpersonal preventions show no meaningful effect on depression risk, on average (Caldwell et al., 2019; Cuijpers et al., 2021b), indicating that some universal prevention efforts are ineffective for reducing risk among unselected youth. A recent large-scale universal prevention trial comparing mindfulness-based training to teaching as usual (TAU) with social—emotional learning among students (n=8376) distributed across numerous British schools (84 schools) showed no average prevention effects on primary depression and wellbeing outcomes, and iatrogenic effects were observed in some schools such that TAU did better than mindfulness (Kuyken et al., 2022).

This summary illustrates both good and bad news regarding the state of intervention knowledge for youth depression. Encouragingly, some treatments such as cognitive behavioral therapy (CBT) and interpersonal psychotherapy (IPT) demonstrate efficacy as assessed via RCTs, and these have been designated "well-established" treatments for youth depression (see Weersing et al., 2017). The bad news is that the field has not progressed in terms of improving effectiveness, dissemination, or implementation of existing preventative and/or treatment interventions to address increasing mental health needs, especially rising prevalence depression rates among youth. One way to shrink depression prevalence is for clinical researchers to reduce the "quality gap" (Jorm et al., 2017). This will require providing preventative interventions and treatments that meet minimal standards of clinical practice guidelines and reducing barriers to evidence-based care for youth with highest needs and risk.

Additional gaps and particular limitations in the treatment outcome and prevention literatures also merit attention. Most RCTs, for example, have included predominantly non-Hispanic white youth, and culturally responsive interventions for racial and ethnically minoritized are relatively underfunded and understudied (Pina et al., 2019; Polo et al., 2019; Walter et al., 2022). Further, salient moderators and mediators of treatment response are poorly understood, even among "gold-standard" treatments (Walter et al., 2022). Without this knowledge, clinicians are limited in their abilities to select and individualize treatments to most efficiently and effectively meet individual patients' specific needs. Additionally, many new treatments have been developed and refined over several decades, yet treatment efficacy has not followed suit and has not substantially improved (Holmes et al., 2018). Further, with respect to preventative interventions, most prevention trials have relatively short-term follow-ups (less than 1 year), and generally longer-term trials exhibit effect sizes that diminish over time (Caldwell et al., 2019; Cuijpers et al., 2021a, 2021b; Gee et al., 2020; Merry



Fortunately, several developments leave us hopeful that significant progress may be made in the coming years. It is increasingly recognized, for instance, that interventions for youth internalizing problems are needed. For example, the Wellcome Trust launched a new priority mental health strategy emphasizing adolescent and young adult (14-24 years) depression and anxiety. Moreover, the United States Office of the Surgeon General (2021) Advisory on Protecting Youth Mental Health proposes and describes a multipronged, ecologically informed series of recommendations to circumvent youth risk for psychopathology and promote youth wellbeing aimed at both health care specialists (e.g., primary care providers) as well as naturalistic settings and supports (e.g., schools, community organizations, digital media, etc.). As we describe below, this kind of ecological approach is needed in the field of youth depression, as systems- and structure-level change will be essential to augment present evidence-based interventions to address the current prevalence-intervention gap.

There and Back Again: Historical Shifts Between Individual and Relational-Community Mental Health Approaches

We briefly summarize relevant policy and mental health events over the century that illustrate how psychiatry, psychology, and allied disciplines repeatedly (re-)learn the lesson and importance of keeping care within local communities and focusing on relationships. This short history reveals why it can be useful and worthwhile to revisit our field's history to see what has worked, what has not, and how we can learn from this history and apply these lessons going forward.

Broadly reflecting the back-and-forth shifts emphasizing individually focused care to more relationally based interventions, consider large-scale mental health intervention experiences from military psychiatry. Throughout World War I experts believed the best approach was to move "shell-shocked" soldiers to far-away special hospitals for treatment, yet the affected suffering soldiers did not do well, their recovery was delayed, and some got worse. In contrast during World War 2, military psychiatry adopted more relational help and found that "shell-shocked" soldiers could be rehabilitated and "turned around" more quickly when treated near their platoon or local army communities to which they would then return. These military experiences providing



mental health treatment for affected soldiers over decades show that a more locally focused, relational, communitybased approach works (Glass, 1971).

Robert Felix, NIMH's first director, was a proponent of this approach. In the Foreword to Caplan's, 1964 *Principles* of Preventive Psychiatry emphasizing "community mental health," Felix wrote, "This book... is a bible. It should be read by every psychiatric resident and mental health worker in training.⁴" In 1963, President Kennedy signed the Mental Retardation Facilities and Community Mental Health Centers Construction Act. The idea was that the federal government would release money via block grants to states, which were supposed to build new community mental health centers to replace crumbling, aging, ineffective state mental institutions. However, state governments did not follow through as Congress intended. States did not invest their own funds and instead used federal block grants as a chance to downsize and economize. As a result, there was never sufficient resources and means for mental health system reform as recommended via integration with community mental health.

When major recession and stagflation hit in the 1970s, many adults with severe mental illness had been released from state inpatient hospitals, and numerous released patients faced barriers with the continuation of their psychotropic medication and other supportive therapies. Subsequently, many of these former patients became homeless due to lack of support systems from the community; several were subsequently incarcerated. Indeed, carceral systems, rather than supportive psychotherapeutic care settings, served as a common destination for individuals whose mental health needs remained unmet. Prisons became (and continue to serve) as America's largest mental hospital system, especially for minoritized individuals and people of color. Today, Illinois Cook County jail, LA County Jail, and NY Rikers Island are the three largest mental health care providers in the United States.

We believe the youth depression field can learn from public health approaches that target modifiable social risk factors and social determinants of health. For example, consider public health efforts aimed at reductions for smoking, cardiovascular disease, and cancer mortality. These public health preventions have included multipronged, intensive programs aimed at both individual and structural targets (e.g., individual, school, curriculum, community) with enduring success (Office of the Surgeon General, 2020). Our review of depression facts and findings (Table 1) suggests many modifiable risk factors that can be targeted, ranging from the individual

level (e.g., cognitive vulnerabilities, poor coping) to environmental and contextual stressors (e.g., peer victimization, childhood maltreatment) to political and structural violence and inequality (e.g., exposure to racism, poverty, armed conflict). Moreover, there exist transactions among individual (e.g., negative emotionality, cognitive vulnerabilities) and contextual risks (e.g., family conflict), such that these risks can mutually reinforce one another over time. As such, interventions can be enhanced by attending to opportunities to intervene at multiple ecological levels by cultivating and leveraging contextual supports to bolster the potential of well-validated individual-level preventions and treatments to allow children, families, and communities to thrive.

"A Matter of Political Will"

Before describing the way in which the FORCE may provide a helpful framework for guiding future work to alleviate youth depression, we echo that reducing mental health problems, including youth depression, is "all a matter of political will" (Jorm, 2014, p. 800). Mental health workers and clinical scholars across disciplines will need to coordinate, collaborate, and convince politicians and policy makers of the evident truth that investing in proven depression interventions reduces suffering and shrinks disease burden. All too-frequently, the already too-limited funds for mental health services are among the first to be cut during economic challenges of recession or budget problems. Personalized prevention efforts represent one path forward; however, depression interventions will also need to expand beyond only the individual-level focus to effectively target social determinants of health and engage larger-scale, structural system levels. We suggest that additional improvement toward reducing depression can be made by both improving individual interventions and making structural changes.

Applying the FORCE to Improve the Prevention and Treatment of Youth Depression

Fundamentals

In order for youth to benefit from depression prevention and treatment efforts, they must first and foremost have *access* to evidence-based care. Common barriers to care include structural factors (e.g., lack of financial resources or transportation, geographic restrictions, long waitlists, and limited providers), as well as social (e.g., mental health stigmatization) and intrapersonal factors (e.g., lack of confidence in treatment, low perceived need) (Andrade et al., 2014; Mojtabai et al., 2011). Structural racism and



⁴ Contrast Dr. Felix, as the first NIMH director's "bible" reference, to the most recent outgoing NIMH Director, Dr. Insel, saying DSM is not the "bible" of psychiatric classification.

other forms of identity-based oppression as well as lack of provider cultural competence impose additional barriers for individuals with minoritized identities, including LGBTQIA + and transgender individuals, and folks of minoritized racial and ethnic identities (Castro-Ramirez et al., 2021; Romanelli & Hudson, 2017; Shipherd et al., 2010). Thus, addressing barriers to care is *fundamental* to improving outcomes for children and adolescents.

We are encouraged by several developments that seek to address barriers to care across ecological levels. At the policy level, the Mental Health Parity and Addiction Equity Act of 2008, which was expanded under the Affordable Care Act of 2010, mandated that most health insurance providers guarantee reasonable coverage for mental health care services (Block et al., 2020). Project AWARE (Advancing Wellness and Resilience in Education) is a federally funded program that supports the development of school-based prevention, screening, and early intervention services, incentivizing stakeholders to integrate evidencebased services in youths' naturalistic settings. Moreover, state-level initiatives have been implemented to provide youth with accessible, free services, such as the "I Matter" program in Colorado which provides up to 6 sessions of free psychotherapy for youth 18 and under. Mental Health First Aid, a standardized educational program aimed at increasing mental health literacy and reducing mental health stigma, has been successfully implemented in more than 20 countries worldwide. Meta-analysis shows effectiveness for producing changes in mental health knowledge (ES = 0.56), attitudes (ES = 0.28), and behaviors (ES = 0.25) (Hadlaczky et al., 2014).

The growing ubiquity of digital technology also presents exciting opportunities to address barriers to care and increase access to evidence-based treatment. Telehealth technology, such as the use of videoconferencing software to deliver psychotherapy services, may allow providers to reach youth in rural or otherwise hard to reach locations and those youth who face transportation or other physical barriers to care (Myers & Comer, 2016; Nelson et al., 2003, 2006). Text-messaging based interventions have also shown promise to promote treatment engagement and proactively address barriers to care among youth (Ridings et al., 2019; Suffoletto et al., 2021). Single-session inventions (SSIs) can be delivered asynchronously and in an anonymized manner. They represent another way to provide immediate service access for at-risk youth; SSIs are feasible and effective for reducing depression symptoms among diverse samples of adolescents (Schleider & Weisz, 2017). SSI proponents and researchers take care to note that these interventions are meant to motivate and supplement, not replace, comprehensive evidence-based therapies (Dobias et al., 2022; Schleider et al., 2022).



Openness

Addressing the unmet mental health needs of contemporary and future youth will require creativity, flexible thinking, and openness to new approaches and modalities. Doing more and better to address the needs for youth depression will also require openness (and additional training to enhance psychological scientists' skills) to collaborate and consult with various stakeholders, community members, educational staff, allied health care professionals, and policy makers.

Relationships

Ecological frameworks for dissemination and implementation emphasize that successful collaboration involves building on existing community strengths, knowledge, and resources to design and refine prevention and treatment strategies that are effective, sustainable, and culturally responsive (Atkins et al., 2015, 2017; Mehta et al., 2019). Schools (e.g., Hoover & Bostic, 2021) and community mental health centers (e.g., Starin et al., 2014) are two clear examples of naturalistic settings in which psychologists can consult and collaborate with multidisciplinary teams to implement evidence-informed interventions for youth. Further, research indicates that digitally facilitated interventions are also enhanced when they feature human support (e.g., coaching) relative to a computer alone (Bennett et al., 2019; Ebert et al., 2016; Whittaker et al., 2017).

Relationships with natural helpers (i.e., non-professionals to whom community members appeal for both social and instrumental support; Israel, 1985) may also enhance efforts to respond to the challenge of youth depression, particularly among historically underserved and/or minoritized community members. Trained natural helpers (or "paraprofessionals") can increase access via increased help-seeking and reduce barriers to care by offering community-based services from community insiders. Such trained natural helpers may be best equipped to respond to the particular cultural values and needs of the children and families they serve. This can be particularly important and valuable in low-resourced and/or historically minoritized settings, in which access to culturally responsive care may be limited and negative experiences within the health care system may be more likely (Jain, 2010). Psychologists can partner with community agencies and natural helpers to increase effectiveness of care for historically underserved children and families. These partnerships can improve child outcomes (Garcia et al., 2022). For example, psychologists actively collaborated with community agencies to gain insight into community values, norms, and concerns, and used trained natural helpers to provide in-home support to families of young children (age 2-8) enrolled in a course of clinic-based parent-child interaction therapy.

Constructs

As innovative ways expand the scope and reach of clinical interventions, it will be important to integrate knowledge from ongoing construct validation work. With enhanced and updated understanding of the construct of depression, prevention and treatment strategies need to follow suit. For example, should conceptual and psychometric work show that mental pain is an important feature to include in measures of depression, then new and potentially promising avenues of intervention (e.g., treatments targeting pain alleviation and management for youth across settings and contexts) can be developed and examined. Of course, any enhanced conceptual clarity that may inform expansion or refinement depression interventions will require proper and rigorous evaluation with evidence.

Evidence

Across ecological levels, prevention and treatment efforts should be informed by empirical evidence and not merely assumed to work. Additionally, applying extant research needs to consider the generalizability of findings and available evidence to samples and the larger population beyond the specific samples (see Simons et al., 2017 for excellent discussion on these "constraints on generalizability"). Interventions involve substantial resources (e.g., time, personnel, money), so knowing from evidence that particular interventions are not superior to control conditions (e.g., school-based cognitive behavioral universal preventions) is important for prioritizing valuable resources and directing policy recommendations toward efforts that do work. More concerningly, even well-intended and conceptualized efforts may be associated with iatrogenic effects. In their large study evaluating universal mindfulness interventions versus TAU in schools, for example, Kuyken et al. (2022) found iatrogenic effects due to mindfulness training in some schools. These surprising results reinforce the importance of evidence gathering and careful evaluation. In sum, evidencebased care remains essential to promoting wellbeing among youth and their families and prioritizing intervention efforts to those with the highest potential for success.

Next, we illustrate two examples of how principles of the FORCE can be used to advance efforts to reduce youth depression across ecological and structural levels.

Case Example 1: Alleviating Poverty to Alleviate Depression

Poverty, income, and food insecurity represent one key grouping of social determinants of health (cf., Lund et al., 2018) with clear implications for youth depression.

Highlighting the promise of targeting the economic domain, a compelling recent review states that "we now know that loss of income causes mental illness" (Ridley et al., 2020, p. 1). Ridley and colleagues' summary also provides evidence supporting bidirectional causal relationships between poverty and mental illness, including depression.

Quasi-experimental evidence demonstrates the impressive benefits of providing families enhanced economic resources. As part of Covid-19 pandemic relief in July 2021, the US Government expanded temporarily a Child Tax Credit (CTC) so that additional economic funds (up to \$3600 maximum per child from the previous CTC of \$2000) were provided nearly universally (with few administrative burdens) to families via direct automatic monthly payments to family bank accounts. This expanded CTC was made available to a much wider pool of families relative to previous efforts. The July 2021 expansion made these direct economic benefits available to low-income and unemployed caregivers, who were previously ineligible for this economic support.

The net result of the expanded CTC was that child poverty was cut nearly in half, and food insecurity and insufficiency were reduced (Batra et al., 2023). These dramatic results were observed in only two years of increasing financial support to children and families. Comparable findings from another federal program to reduce poverty for low-income families, based on work with Earned Income Tax Credit (EITC), similarly showed outcomes including improved housing, higher family income, and better access to health care. These anti-poverty effects improved mental health especially for Black families (Batra & Hamad, 2021).

Results from a large serial cross-sectional study employing a quasi-experimental design showed that the July 2021 expanded CTC was linked with lower depression and anxiety symptoms among lower-income adults with children (Batra et al., 2023). More specifically, analyses compared internalizing symptom levels as measured from a baseline (prior to the initiation of the expanded CTC) to after infusion of these additional economic resources. Results showed that low-income caregivers with children reported approximately 13% reduction in clinically significant anxiety symptoms and 6% drop in clinically significant depression.

Additional findings from this expanded CTC study highlight policy implications. With increased financial resources from the expanded CTC, no change was found for average mental health care visits or psychiatric prescriptions. These results suggest that anxiety and depression symptoms can improve without families requiring use of additional mental health services. In other words, changing the circumstances of living can exert meaningful effects for individuals' psychological symptoms even in the absence of direct psychotherapeutic intervention. Poverty is associated with greater exposure to trauma and violence, increased environmental stressors, worse physical health, and exposure



to interpersonal discrimination and structural inequality. Improving safety, economic stability, and physical wellbeing within the family may be reasonably assumed to have downstream effects of lowering depression and co-occurring psychopathologies within families.

In summary, given strong evidence that broader systemic factors and social determinants are linked and appear to causally affect depression and other forms of youth psychopathology, multiple approaches are needed to reduce distress and relieve depression's burden in addition to improving access to psychological interventions. Social determinants of mental health (e.g., poverty, health care access, food insecurity) are *fundamental* aspects of youths' experience that can be addressed by building *relationships* with community advocates and policymakers to enact higher level economic policy. The recent CTC expansion provides important *evidence* demonstrating the salutary effects of direct economic interventions for family mental health.

Case Example 2: Personalizing Depression Preventions

Evidence-based reviews demonstrate that indicated and selective preventions are effective for decreasing incidence and risk for anxiety and depression among youth (Breedvelt et al., 2018; Caldwell et al., 2019; Moreno-Peral et al., 2017). While findings are mixed with strength of effectiveness for universal prevention depending on settings, contexts, delivery, and intervention modality, universal interventions can be combined and blended with targeted approaches for anxiety and depression. Parenting programs represent an excellent example of this approach and are among the most efficacious and cost-effective interventions to reduce the prevalence of youth mental health (Prinz & Shapiro, 2018). Parenting programs are acceptable to many caregivers, effective across diverse contexts, and can be applied with population-based approaches to achieve high dissemination. Economic analysis shows that parenting programs provide successful impact for family and offspring mental health that result in more savings economically from social service spending relative to the cost of implementing these universal, population-based programs (Washington State Institute for Public Policy, 2019).

Systems-contextual approaches, such as the parenting program Triple P, use a tiered approach to flexibly provide contextually sensitive, ecologically engaged, and developmentally appropriate parenting support in a manner that is feasible, scalable, and effective (Sanders & Mazzucchelli, 2022). One key explanation for the effectiveness of this program involves the flexible selection of appropriate evidence-based programs emerging from the central, unified theoretical framework to respond to the specific needs and

priorities of particular target populations within a broader population-based service model (Sanders & Mazzucchelli, 2022). While universal, population-based programs such as Triple P achieve this component via flexible delivery and implementation of teaching particular parenting skills based on varying parenting needs and primary concerns, other options can include personalizing prevention in a manner that matches intervention selection to youth's particular risks and needs.

Rather than providing a one-size-fits all approach via prevention delivery to all youth regardless of risks or strengths, more precise personalization can occur when evidence-based risk profiles identify individuals or subgroups for whom particular interventions may prove more efficacious. As our risk factor review in Table 1 illustrates, numerous risks could be examined and tested to inform such a risk profile with translation to impact prevention. Here, we provide one example (Hankin, 2020). A cognitive and interpersonal risk profile was developed based on foundational research over years of solid, replicable vulnerability research. This algorithm was then tested and evaluated in independent samples and shown to predict future occurrence of MDD (Hankin et al., 2018). This risk profile was used in a randomized trial, the Personalized Depression Project (PDP; Young et al., 2021), to evaluate the degree to which risk-informed personalized prevention can improve future depression reduction. Youth categorized as exhibiting high or low cognitive and interpersonal risks were randomized to receive an intervention that either matched their risk and best met their needs (e.g., high cognitive risk and low interpersonal risk received a cognitive behavioral program; high interpersonal risk and low cognitive risk received an interpersonal-based program) or mismatched (e.g., high cognitive risk and low interpersonal risk received the interpersonal-based program). Results showed that matched adolescents reported significantly fewer depression symptoms relative to mismatched youth over the 21-month study period, although no significant difference was observed for MDD onset (12% for matched vs 18.3% for mismatched). Additional outcome data for anxiety symptoms revealed that matched youth reported significant decrease in anxiety symptoms compared to mismatched adolescents from postintervention through 18-month follow-up (Jones et al., 2022). Last, matched youth experienced significantly fewer dependent stressors compared to non-matched adolescents over follow-up (Jones et al., 2023).

In summary, findings from PDP illustrate that *openness* to new modes of prevention that implement *evidence-based* approach to personalizing prevention efforts as informed by knowledge of the *construct* of depression to create health and risk profiles can work to enhance outcomes among youth. Future research is still needed to replicate these PDP findings and extend investigation to evaluate the extent to which the specific cognitive—interpersonal risk classification



profile and its categorical cutoffs generalize to other adolescents in other settings and contexts for maximal clinical utility.

Summary

Clinical psychological scientific study of youth depression began in earnest in the late 1970s and has seen rapid expansion of inquiry and knowledge accumulation from the mid-1990s to the present. The field has produced impressive facts and findings regarding depression's prevalence, course, patterning, risk and resilience factors, and interventions. As with all forms of scientific investigation, the validity and utility of this corpus of information on youth depression rests on foundational principles and frameworks that affect, and are affected by, how the construct of depression has been conceptually defined and assessed.

We provided a review of particular sociohistorical events and philosophical principles that help to contextualize how scholars and applied mental health workers have conceptualized and measured youth depression over theses decades. Given particular implicit assumptions affecting how key features of depression have been defined, which signs and symptoms have been predominantly included (as well as excluded), we advocated for a renewal in the refinement, revision, and reconceptualization of the depression construct among children and adolescents especially incorporating a developmentally informed perspective. We discussed modern principles of the construct validation process, including the first two steps of content definition and then measurement development. We encouraged depression experts and important stakeholders to engage in the back-and-forth iterative process involving these two construct validation steps to create living, ongoing measures of the youth depression construct that would be freely available for use and ongoing refinement. Research can then evaluate proposed newer measure(s) via the third step of construct validation in which associations between revitalized measurement instrument(s) and other external constructs (e.g., risk factors, intervention) are evaluated. Because these construct validation steps were not used in the development and testing of most currently and commonly used youth depression measures, our proposal to revisit and reconceptualize the depression construct in a developmentally sensitive manner holds promise for the field of youth depression to improve all aspects of basic scientific and applied knowledge.

At the same time, the considerable number of children and adolescents around the world experiencing elevated depression demands enhanced efforts to reduce the tremendously high distress and burden among youth. The current literature shows that the present suite of evidence-based depression interventions for children and adolescents demonstrate some efficacy and effectiveness in treating and preventing depression. However, these largely individually focused pharmacological and psychological interventions are not enough to meet the massive needs to seriously decrease the gulf between depression's high prevalence and available implementations provided via trained mental health experts. We proposed more serious attention and focus to broaden interventions beyond the predominant individual level and expand efforts structurally across socio-ecological systems and levels. Such expanded approaches could include more universal efforts with supportive evidence, such as promoting positive parenting (e.g., Triple P), enhancing available resources (e.g., educational, health care), and financial supports to lift children and families out of poverty via government and legislative initiatives. Additionally, expanded universal preventions can be combined with more targeted, selective approaches that personalize depression interventions using risk-informed profiles to guide matching to evidence-based programs.

In closing, the field of youth depression has come a long way, amassed many impressive findings, and found ways to reduce depression symptoms and disorder. At the same time, rates of depression, distress, and burden continue to rise for children and adolescents, and this prevalence-intervention gap is widening. We believe there is a New Hope for the future of youth depression research that can rise to meet these challenges and offer avenues to reduce distress and burden around the world. With a clearer understanding of fundamentals (clear thinking informed by history and philosophy), openness to explore new ideas transparently using the scientific method, relationships with youth, families, and stakeholders most intimately acquainted with depression, constructs to guide conceptualization and measurement of youth depression's signs and symptoms, and evidence collection and evaluation to ensure accurate and believable knowledge (the FORCE), we look forward to future advances that instill realistic hope and are poised to advance progress on youth depression.

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Data Availability There are no data collected or analyzed for this review, so there are no data to share.

Declarations

Conflict of interest Neither author has any conflicts of interest nor financial interests to declare. Benjamin L. Hankin is an unpaid member of the HiTOP consortium. He has been on the Editorial Board of this journal.

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