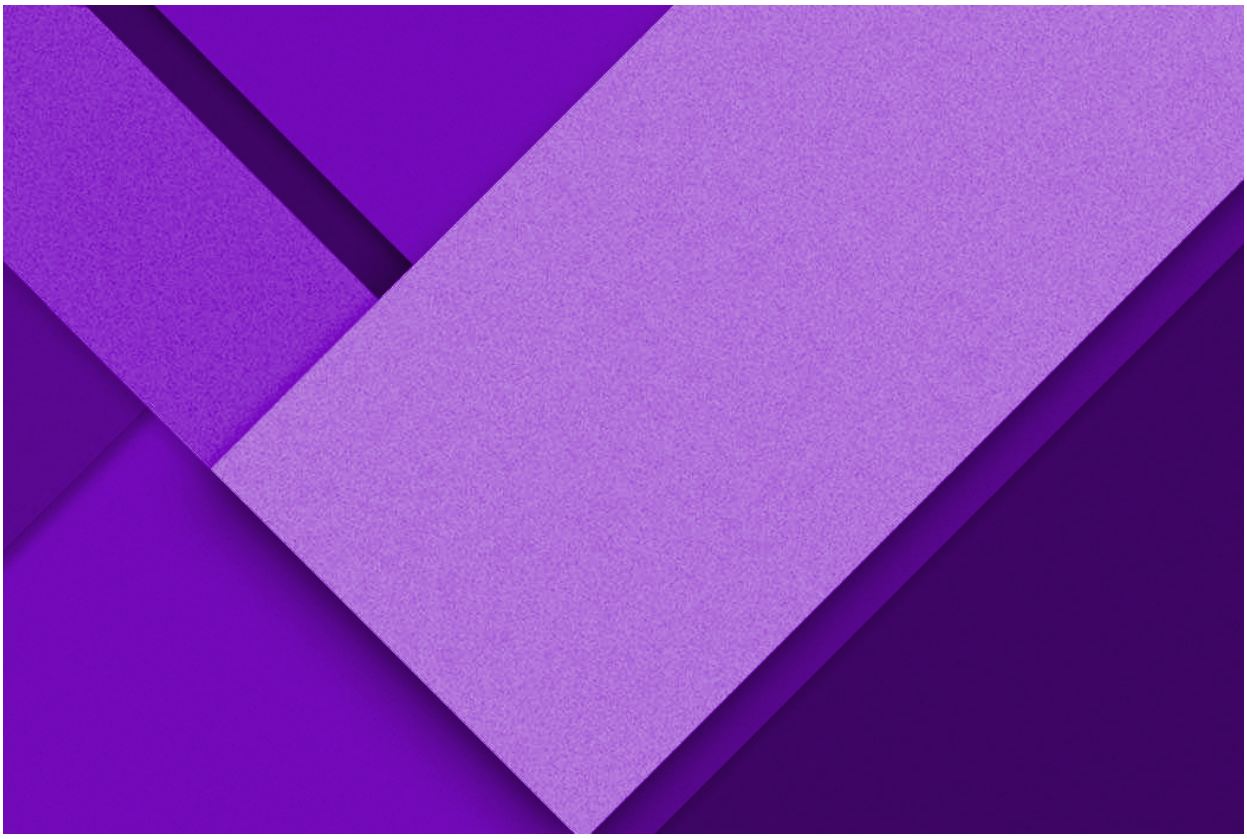

Assessing Disordered Eating in the Youth Risk Behavior Survey (YRBS)

Best Practices and Recommendations for Item Selection

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Developed by the Eating Disorder Public Health Surveillance Working Group, with support from The Trevor Project, Harvard STRIPED, the Academy for Eating Disorders (AED)'s Epidemiology & Public Health Committee, and the Kentucky Eating Disorder Council

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EXECUTIVE SUMMARY

Eating disorders represent a growing public health threat among U.S. youth, necessitating urgent attention, intervention, and resource allocation. In order to inform these efforts, comprehensive, up-to-date surveillance data on pertinent symptoms and behaviors – collectively referred to as disordered eating – are needed. The CDC's Youth Risk Behavior Survey (YRBS) is ideally suited for this endeavor and would provide needed information on trends and inequities in disordered eating prevalence; however, relevant items are currently lacking from the standard YRBS questionnaire. This report aims to help address these critical gaps by providing guidance regarding the assessment of disordered eating via the YRBS. These recommendations are provided by an expert workgroup composed of researchers and public health professionals (including YRBS coordinators) and are intended to outline best practices in item selection and wording. We also share key insights from the literature on disordered eating surveillance that form the evidence base supporting our recommendations, and provide a list of references and resources for further reading.

BACKGROUND

The public health burden of disordered eating

Eating disorders are serious mental illnesses characterized by significant disturbances to one's eating patterns and/or body image and they represent a growing public health threat for U.S. youth [1]. These disorders, which include anorexia nervosa, bulimia nervosa, and binge eating disorder, affect 7% of adolescents [2,3] and are associated with long-lasting medical consequences spanning from cardiovascular complications, bone loss, and endocrine abnormalities to depression, anxiety, suicidality, and substance use [4,5]. They are also known to result in considerable psychosocial disability, reduced quality of life, and substantially elevated mortality [2,6]. Even when diagnostic criteria are not met, subthreshold symptoms and behaviors (e.g., binge eating, purging) can cause similar levels of impairment [7] and are highly prevalent, affecting 10% of boys and 23% of girls aged 14–18 [8]. At the population-level, the full spectrum of disordered eating costs the U.S. economy $64.7 billion/year in productivity losses and healthcare expenditures [9; see 10 for state estimates], underscoring the substantial burden such outcomes place on individuals, families, and society.

Impact of the COVID-19 pandemic

Concerningly, recent data from the CDC and U.S. hospital systems indicate that rates of both eating disorders and disordered eating have spiked among adolescents because of the COVID-19 pandemic and its socioeconomic sequelae [11]. For example, a February 2022 *Morbidity and Mortality Weekly Report* revealed that emergency department visits for eating disorder symptoms more than doubled pre- to post-pandemic onset, with the greatest increases observed for youth aged 12–17 [12]. Several studies have shown that these spikes have been especially pronounced among girls, youth of color, LGBTQ+ youth, and other marginalized groups [13,14]; there is also accumulating research linking the exacerbation of food insecurity during the pandemic with increases in binge eating among adolescents from middle- and low-income backgrounds [15]. Collectively, such findings raise concerns regarding the widening of already glaring social inequities in health and shed light on how disordered eating is a critical, yet under-addressed aspect of the ongoing youth mental health crisis.

Urgent need for enhanced surveillance

These patterns underscore the urgent need for up-to-date data to inform treatment and prevention efforts, and yet, there is currently no regular surveillance of disordered eating among youth in the U.S. The most recent estimates come from the 2013 National YRBS [8] – such numbers are outdated and likely severely underestimate the true prevalence of disordered eating among U.S. youth given the aforementioned impacts of the pandemic and related stressors [11–16]. To provide researchers, public health professionals, and policymakers with more recent and actionable data on disordered eating, our surveillance systems must be updated to collect this information. The YRBS is ideally suited for this endeavor: the assessment of disordered eating is aligned with the survey's stated priorities (which include monitoring mental health- and diet-related behaviors among adolescents) [17] and the inclusion of relevant items on the standard YRBS questionnaire would allow for regular tracking of trends in prevalence, risk factors, and inequities. In the next section of this report, we briefly summarize historical and best practices regarding disordered eating surveillance among youth populations, followed by evidence-based recommendations for item selection and wording.

SURVEILLANCE BEST PRACTICES

Historical approaches to disordered eating assessment in the YRBS

For many years, three items assessing key eating disorder symptoms – fasting, purging, and diet pill use – were included on the national YRBS questionnaire:

CDC's YRBS Disordered Eating Items, 1995–2013

Fasting Item

During the past 30 days, did you **go without eating for 24 hours or more** (also called fasting) to lose weight or to keep from gaining weight?

A. Yes
B. No

Purging Item

During the past 30 days, did you **vomit or take laxatives** to lose weight or to keep from gaining weight?

A. Yes
B. No

Diet Pill Use Item

During the past 30 days, did you **take any diet pills, powders, or liquids** without a doctor's advice to lose weight or to keep from gaining weight? (Do not include meal replacement products such as Slim Fast.)

A. Yes
B. No

These items served as one of the only sources of up-to-date, nationally-representative data on disordered eating prevalence among U.S. youth and thus were regularly used by researchers, public health professionals, and policymakers in efforts related to eating disorder and mental health treatment, prevention, and equity [e.g., 18–26]. They also informed the wording of disordered eating items included on other major youth health surveys, such as the Growing Up Today Study (GUTS) and Project EAT [27,28]. Unfortunately, in 2015, all three of these items were removed from the standard YRBS questionnaire. While states can still add these (as well as other similar optional questions) to their state-specific YRBS questionnaires, their omission from both the national and standard questionnaires has resulted in critical data gaps and an inability to monitor or respond to the concerning spikes in disordered eating that occurred in the wake of the pandemic [29].

Insights from the disordered eating literature

Importantly, now is the time to not only address these data gaps, but to advance the surveillance of disordered eating in the U.S. by proposing improved questions for inclusion in the standard YRBS questionnaire. Our review of the literature on best practices for assessing disordered eating has revealed several key considerations to be made when screening for these outcomes among youth:

1. First, it is widely recognized within field that it is preferable to focus on disordered eating symptoms and behaviors rather than full-threshold eating disorders [30–32], given the well-documented barriers to accessing a diagnosis from a healthcare professional and thus the likelihood of underestimating the true prevalence of disordered eating [33].

2. Second, regarding which symptoms and behaviors to assess, there is a recognized need for a heightened focus on binge eating (i.e., overeating coupled with a feeling of loss-of-control over eating), which may be the most prevalent form of disordered eating among U.S. youth and has been shown to disproportionately affect marginalized groups (especially LGBTQ+ youth, racial/ethnic minority youth, and youth experiencing food insecurity) [31,34].

3. In the realm of restrictive-spectrum disordered eating, there is also a recognized need to focus on the most "high-risk" symptoms and behaviors, including fasting, diet pill use, and purging, all of which have been linked to severe medical complications and are strong risk factors for the development of a full-threshold eating disorder [7,35].

4. And finally, when possible, it is preferable to assess the frequency with which youth engage in a given symptom or behavior (versus simply assessing whether they ever engage) so as to obtain data on severity that can be used to inform treatment and prevention efforts [30].

RECOMMENDATIONS

Informed by this evidence base, the Eating Disorder Public Health Surveillance Working Group (which includes members from YRBS sites in Alaska, Arizona, Kentucky, Nebraska, and Vermont and support from Harvard STRIPED, the Academy for Eating Disorders, and the Trevor Project) proposes the following two disordered eating items for inclusion on the standard YRBS questionnaire:

Binge Eating Item

Eating disorders are a critically under-addressed component of the ongoing youth mental health crisis in the U.S. and updated data on the prevalence of disordered eating behaviors (a key symptom of eating disorders) is urgently needed to inform treatment and prevention efforts. Two disordered eating questions are being proposed. This first question will help estimate the prevalence of binge eating, a core symptom of bulimia nervosa and binge eating disorder and a high-risk disordered eating behavior in its own right that disproportionately affects racial/ethnic minority youth, LGBTQ+ youth, and youth experiencing food insecurity.

The wording for this question is based on that from validated eating disorder screening tools and has been used as a single item in population health surveys of youth such as the Growing Up Today Study (GUTS) and Project EAT for decades. The current YRBS Standard Survey does not contain a binge eating question. This binge eating question is an improved version of the binge eating item on the Optional Question List, as it now includes loss of control (to align with the DSM-5 definition of binge eating) and assesses the frequency of behavior instead of using yes/no answer options.

During the past 30 days, on how many days did you eat an unusually large amount of food in a short period of time and experience a loss of control over how much you were eating or a feeling that you could not stop eating even when full?

A. 0 days
B. 1 or 2 days
C. 3 to 5 days
D. 6 to 9 days
E. 10 to 19 days
F. 20 to 29 days
G. All 30 days

Composite Restrictive Disordered Eating Behaviors Item

This second disordered eating question will assess the prevalence of restrictive-type disordered eating behaviors, including fasting or meal skipping, diet pill use, and purging. These behaviors (which often co-occur) can cause severe and sometimes long-lasting adverse health consequences stemming from malnutrition, including cardiovascular complications, bone loss, endocrine abnormalities, and neurological issues. They are strongly associated with depression, anxiety, substance use, and other mental health concerns and are among the strongest predictors of a future eating disorder diagnosis among youth.

This question is an adapted version of a composite disordered eating question that is currently included on the Optional Question List. It has been improved to include only the highest-risk restrictive disordered eating behaviors, assesses frequency of behavior instead of using yes/no answer options, and expands the reasons for engaging in these behaviors to include the intention of controlling both shape and weight.

During the past 30 days, on how many days did you try to control your shape or weight by fasting or skipping meals; taking diet pills or supplements not prescribed by a doctor; or vomiting or taking laxatives?

A. 0 days
B. 1 or 2 days
C. 3 to 5 days
D. 6 to 9 days
E. 10 to 19 days
F. 20 to 29 days
G. All 30 days

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