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The accuracy of symptom recall in eating disorders

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Abstract

The purpose of this study was to assess how accurately patients with eating disorders recall their symptoms after 6 to 12 months, to evaluate whether more recent symptoms are remembered more accurately, and to determine the extent to which the accuracy of recall impacts diagnostic classification. Seventy women who were enrolled in a longitudinal study of eating disorder symptoms were asked to recall their eating patterns, behaviors, and attitudes from 6 or 12 months earlier using semistructured interviews (Eating Disorders Examination and McKnight Longitudinal Follow-up Interview for Eating Disorders). Results indicated that correlations between the original and recalled data for frequency of objective binge eating episodes and vomiting ranged from $r = .534$ to .898 (average, $r = .772$), with lower correlations for subjective binge eating episodes (average, $r = .335$). Attitudes toward shape and weight were recalled more accurately at 6 months (average, $r = .907$) than 12 months (average, $r = .620$). κ Coefficients were higher for eating disorder diagnoses using broad than narrow definitions, with no differences between 6- and 12-month recall. Overall, agreement for depression recall was low but better at 6 months ($\kappa = .423$) than 12 months ($\kappa = .296$). These findings suggest that patients with eating disorders are at least moderately accurate when recalling most symptoms from 6 to 12 months earlier. Although broadly defined eating disorder diagnoses remained consistent, depression and narrower eating disorder diagnostic classifications showed more variability.

1. Introduction

Psychiatric research typically relies on retrospective recall of symptoms, especially for diagnostic interviews such as the Structured Clinical Interview for *DSM-IV* [1]. The accuracy of lifetime diagnoses depends on the patient's ability to recall symptoms from earlier periods. These data are crucial components of psychopathology research, including studies of epidemiology, psychiatric comorbidity, and genetics.

Although interviews that use retrospectively recalled information are widely administered, the degree to which patients can remember their symptoms accurately is uncertain. Retrospective recall of symptoms can be limited in accuracy by several memory errors and cognitive biases [2-5]. Several studies have found that correlations between symptoms that are reported at one time and recalled later are only modest for psychiatric symptoms including anxiety [6] and substance use disorders [6], as well as behaviors including smoking [7,8] and physical activity [8,9].

Very little is known about the accuracy with which eating disorder symptoms can be remembered. Field et al [10] found only moderate accuracy of long-term recall of binge eating and purging behaviors using a self-report questionnaire. However, this question has not been investigated using a semistructured interview method. The primary goal of this study was to assess how accurately participants recall eating disorder and depressive symptoms after 6 and 12 months have elapsed. It was hypothesized that symptoms would be recalled more accurately after 6 than 12 months because memory retention of dietary patterns has been found to deteriorate as the time interval increases [11]. The second goal of this study was to evaluate how the inconsistencies between reported and recalled data impact the reliability of eating disorder and depression diagnoses

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and the extent to which these inconsistencies in recall affect both broad and narrow classification methods.

2. Method

2.1. Participants

Study participants included 70 women who were enrolled in a longitudinal study of eating disorder symptoms [12] that required ongoing interviews every 3 months. The average age of the participants was 36.80 years (SD, 9.20) (range, 21-61), and average body mass index was 32.32 (SD, 11.14) (range, 16.91-59.89). Most of the sample (n = 68; 97.1%) described their race as white.

Subjects were recruited for this study by the research assistant who coordinated the larger project and were assessed for this study at various stages of participation in the 4-year longitudinal investigation. At the time of enrollment in the longitudinal study, 95.7% (n = 67) had met criteria for an eating disorder diagnosis; 3 participants (4.3%) were in partial remission. At the time of assessment for the current study, diagnoses included anorexia nervosa (AN; n = 2, 2.9%), bulimia nervosa (BN; n = 3, 4.3%), binge eating disorder (BED; n = 4, 5.7%), eating disorder not otherwise specified (ED NOS; n = 25, 35.71%), eating disorder in partial remission (n = 25; 35.7%), and no eating disorder symptoms (n = 11; 15.7%). Participants in remission and partial remission were included to assess the accuracy of recall of a full range of eating disorder symptoms at all stages of recovery.

2.2. Instruments

Eating disorder attitudes and behaviors were assessed using the Eating Disorders Examination (EDE) [13]. A modified version of this instrument was used at the recall interview that included a calendar for the 28 days before the date of their original interview, either 6 or 12 months earlier, and dates specifying the 6-month period being assessed. Other than modifying the dates, standard directions for administering the EDE were followed. Eating Disorders Examination items assessed included pattern of eating, restraint over eating, binge eating, self-induced vomiting, importance of shape and weight, actual weight, and desired weight.

Symptoms of depression were assessed using the McKnight Longitudinal Follow-up Interview for Eating Disorders (M-FED) [14], a semistructured interview based on Structured Clinical Interview for *DSM-IV* items and scoring that yields 3 diagnoses: major depression (MDD), subthreshold MDD (defined as meeting 3 or 4 but <5 of the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* [*DSM-IV*] criteria), or no depression. For this study, participants were asked to recall symptoms of depression for the 3-month period before the original interview.

All interviews were conducted by graduate-level assessors who received extensive training, were supervised by a doctoral-level psychologist (CBP), and met weekly to maximize interrater reliability. Diagnoses were confirmed by a second rater who was blind to the initial diagnosis. In addition, a random sample of tapes (n = 8; 11.4%) were selected for interrater reliability ratings on all items and diagnoses. Reliability estimates ranged from r = .98 to 1.00.

2.3. Diagnostic classifications

Specific definitions for the diagnosis of ED NOS for participants with symptoms of AN, BN, or BED who did not meet full *DSM-IV* criteria were determined a priori [12] and included the following: *partial AN*, requiring either (1) all *DSM-IV* criteria for AN except weight below 90% of ideal body weight, along with either amenorrhea or body image disturbance and intense fear of weight gain, or (2) all criteria for AN met in the past 12 months but not currently; *partial BN*, requiring either (1) all *DSM-IV* criteria for BN except the overvaluation of shape/weight criterion or (2) all *DSM-IV* criteria except frequency of binge eating and compensatory behavior less than twice per week (but compensatory behaviors with or without binge eating occurring, on average, at least once per month for the past 6 months); and *partial BED*, requiring all *DSM-IV* criteria except frequency of binge eating less than 2 days per week (but occurring, on average, at least once per month for the past 6 months).

Diagnostic classifications were made using narrow and broad definitions. Narrow diagnostic categories included AN, BN, BED, ED NOS, partial remission (symptoms present, but not at the severity for diagnosis), and no eating disorder symptoms (defined as no binge eating or compensatory behavior, weight >90% ideal body weight, and Importance of Shape and Importance of Weight <4 on the EDE). Broad definition categories included the following: (1) full eating disorder, specified as meeting full criteria for AN, BN, or BED; (2) subthreshold eating disorder, which included participants with the diagnosis of ED NOS or those classified as being in partial remission; and (3) no eating disorder (as defined above).

2.4. Procedures

After potential subjects were invited by the research assistant to participate in the study, written informed consent was obtained. Subjects were paid $40 for their participation in this study. Participants completed the original interview, in which they were administered the standard EDE and M-FED. At the recall interview, participants were asked to remember data from 6 or 12 months earlier. In most cases, this assignment was conducted at random (scheduling limitations dictated assignment in several cases). Among the participants, 29 (41.4%) recalled 6-month data and 41 (58.6%) recalled 12-month data.

2.5. Statistical analyses

Intraclass correlation coefficients were computed between reported and recalled data for continuous variables. Variables in which distributions were highly skewed were