Adolescent Victimization and Subsequent Use of Mental Health Counseling Services

NEIL B. GUTERMAN, Ph.D., HYEOUK C. HAHM, Ph.D., AND MARK CAMERON, Ph.D.

Purpose: To test the extent to which adolescent victimization predicts subsequent use of mental health services in a prospectively assessed nationwide sample of high school students.

Methods: Data were analyzed from 4590 adolescents participating in Waves I and II of the National Longitudinal Survey of Adolescent Health. In-home self-report data were collected on four types of personal victimization, mental health service use, demographics, psychological symptoms/needs, and family connectedness. Using logistic regression analysis, adolescents’ victimization and background variables at Wave I were entered as predictors of subsequent mental health service use, measured at Wave II.

Results: In this national sample, 19.6% of the respondents stated that they had experienced at least one of four forms of personal victimization in the prior year. Of those reporting personal victimization, 11.0% stated they had used mental health services at 1-year follow-up, as compared to 9.2% of those who did not report any personal victimization. After controlling for background variables in logistic regression analyses, however, adolescents’ victimization reported at Wave I was associated with significantly lower odds of subsequent mental health service use at Wave II.

Conclusions: Evidence does not indicate that adolescents’ victimization prompts mental health service use, and rather indicates that in some instances victimization is associated with lower odds of subsequent mental health service use. These findings raise questions about the degree to which adolescents receive needed professional mental health supports in the wake of serious violence exposure.

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KEY WORDS:
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Violence exposure represents one of the most serious threats to adolescents’ health and mental health status. Despite a recent downward trend, homicide represents the second leading cause of death for persons aged 15 to 24 years, and exposure to injurious or potentially injurious nonfatal violence touches substantial proportions of America’s adolescents [1–3]. Studies using convenience samples of urban youths indicate that between 8% and 22% have been “beaten up” or “mugged,” between 2% and 13% have been attacked with a knife, and between 11% and 47% stated they had been shot or shot at with a gun [4–6]. Such experiences clearly cut across geographic, ethnic, and social class lines, with significant though somewhat lower proportions of suburban, rural, and upper-middle-class youths also reporting exposure to serious acts of violence [3,7,8]. Exposure to violence among adolescents has been associated with mental health sequelae linked to risky health behaviors and negative health outcomes, including elevated levels of depression, increased aggression and delinquency, increased alcohol use, reckless behaviors, posttraumatic stress disorder symptoms, and sleep disturbances [9–17]. Although it has been difficult to draw direct causal connections between violence exposure and mental health sequelae given that the majority of studies have employed cross-
sectional designs, more recent longitudinal findings nonetheless continue to discern violence exposure as an independent predictor of subsequent mental health concerns, for example, regarding increased aggressive and antisocial behavior [6,9,18]. These growing empirical links between violence exposure and mental health sequelae make increasingly clear a pressing need for mental health support in the aftermath of adolescents’ exposure to violence.

Professionals who provide mental health counseling may be specially situated to offer needed “psychological first aid” [13] given that informal support sources face special obstacles in providing helpful psychosocial assistance when adolescents are victimized [19–21]. Initial studies, however, have raised important questions about the degree to which victimized adolescents, in fact, receive professional mental health supports when such victimization occurs outside the home [7,22].

Although little empirical evidence is yet available to directly shed light on the degree to which violence exposure outside the home prompts adolescents’ accessing and receiving mental health services, indirect evidence suggests that special barriers may exist. Studies have consistently shown that large proportions of children and adolescents who exhibit psychiatric symptoms do not receive professional help [23–25]. Whereas adults may directly initiate their help-seeking to mental health professionals, adolescents most often lack knowledge about mental health services [26], and their pathways to mental health services appear less direct, often resting upon referral by a parent or other concerned adult, such as a teacher or a guidance counselor [27,28]. In instances of personal victimization, however, adolescents may not readily reveal such experiences to concerned adults, in part, owing to cognitive minimization strategies employed to cope with such experiences, and possible fears that disclosure may heighten future risk of harm to themselves or others [29]. Evidence documents, for example, that physically violent crimes experienced by juveniles, as compared with those experienced by adults, are substantially underreported to formal authorities [30]. To date, the only study that has directly reported adolescents’ mental health service use rates following serious victimization preliminarily reported that mental health services were received by 0% to 50% of adolescents, across varying forms of victimization [8]. However, these findings rest on small numbers of retrospective responses drawn from a convenience sample of adolescent health clinic users, and did not control for other potential confounding factors that may have promoted service use.

Comprehensive behavioral models of service utilization such as the one proposed by Andersen [31] have identified the importance of demographic or “predisposing” factors, illness and symptomalogical factors, and enabling or inhibiting factors (e.g., medical insurance coverage or lack of information about available mental health resources) in determining service use. However, such models do not well account for the role of personal experiences such as traumas, losses, or severe violence exposure, which, given their detrimental role in adolescents’ mental health, provide their own compelling rationale for engaging professional mental health supports. To the authors’ knowledge, no study has yet systematically examined adolescents’ use of mental health services in the aftermath of their victimization. Thus, the present study’s aims were: (a) to prospectively assess whether adolescents’ victimization is linked with subsequent mental health counseling service use; and, (b) to examine the degree to which adolescents’ victimization may play a role in predicting whether or not they receive subsequent mental health counseling services, after controlling for important background variables.

Methods

Participants

The National Longitudinal Study of Adolescent Health (Add Health) is an ongoing national longitudinal study of adolescents attending school in grades 7 through 12. Its design and sampling features are detailed elsewhere [32,33]. The sampling frame for the Add Health study included all public and private high schools in the United States that had an 11th grade and at least 30 students, as identified in the Quality Education Database of April 1994. From this database, a stratified random sample of 80 high schools was drawn on the basis of enrollment size, region, urbanizicity, school type (public, private, or parochial) and racial composition, and then paired with their feeder (middle) schools. Using school rosters, an initial in-school survey was completed by 90,118 of 119,233 eligible students from September 1994 to April 1995. All students who completed this survey as well as those listed on the school rosters were then used as the sampling frame from which to invite a random subsample of students (N = 16,044) to participate in an in-home interview, stratified by grade and gender (12 strata) at each school. This
Table 1. Background and Study Predictor Variables and Their Measurement

<table>
<thead>
<tr>
<th>Predictor Variables</th>
<th>Item Examples</th>
<th>No. of Scale Items (Reliability Coefficient)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression/anxiety</td>
<td>In the past week or past year: felt lonely, felt depressed, felt sad, felt fearful, felt moody, cried, had a poor appetite, had trouble falling asleep, had trouble relaxing.</td>
<td>19 (α = .87)</td>
</tr>
<tr>
<td>Externalizing</td>
<td>In the past year: damaged other’s property, lied to parents, drove without permission, stole, expelled from school, sold marijuana, shoplifted, had a physical fight, shot or stabbed someone, used weapon in a fight, threatened to use weapon.</td>
<td>19 (α = .83)</td>
</tr>
<tr>
<td>Disability</td>
<td>One’s perception of having a disability, one’s perception that other people would consider them as having a disability.</td>
<td>2 (α = .84)</td>
</tr>
<tr>
<td>Grade point average</td>
<td>The most recent grade period: mean of grades in English, math, history, and science.</td>
<td>4 (α = .73)</td>
</tr>
<tr>
<td>Family connectedness</td>
<td>In the past year: felt close to mother, father, the degree of parental care, the degree of parental warmth, the degree of parental understanding.</td>
<td>13 (α = .88)</td>
</tr>
<tr>
<td>Wave I victimization</td>
<td>In the past year: knife or gun pulled on you, someone shot you, someone stabbed you, you were jumped.</td>
<td>4 (α = .61)</td>
</tr>
</tbody>
</table>

The study group represents the study’s “core sample,” excluding several additional groups that were oversampled in the original Add Health study design and not included in the present study [33]. Of those in the core sample, 12,102 participated, forming a 75% response rate at Wave I. Wave II surveys were completed approximately 1 year later (April through August of 1996) by the same respondents except for high school seniors who aged out of the study (n = 9278 or 77% of Wave I respondents). For the present analyses, the Add Health dataset made available for public use was employed, prepared in order to minimize the likelihood of deductive disclosure of study participants. This dataset is composed of 50% of the study’s core sample participating at both Waves I and II, randomly selected (N = 4590).

Comparisons between Wave II participants and nonparticipants on study variables revealed no significant attrition biases on demographic variables (ethnicity, gender, parents’ education level), apart from the expected aging out of Wave I high school seniors (study participant mean at Wave I = 15.6 years old vs. nonparticipant mean = 17.2 years old, t = 34.44, p < .001). On the remaining study variables (as measured below), Wave II participants and nonparticipants showed no significant differences on their self-reported victimization experiences, their mental health service use at Wave I, depression/anxiety, externalizing behaviors, or self-perceived disability. Study participants were, however, found to report higher grade point averages (study participant mean = 3.6 vs. nonparticipant mean = 3.3 on a five-point scale, t = 10.85, p < .001), and reported greater family connectedness (study participant mean = 48.6 vs. nonparticipant mean = 46.1, t = 6.49, p < .001). The study sample consisted of 48.8% females and 51.2% males. Regarding their ethnic backgrounds, 69.5% were white, 22.1% African-American, 11.9% Latino/a, 3.3% Asian, and 6.6% other ethnic backgrounds. (Percentages total 113.4% as respondents could choose more than one ethnic identification.)

**Measures**

To assess the unique predictive contribution of adolescents’ victimization on mental health service use, data on adolescents’ victimization were used as predictors along with background covariates in the domains of demographics, psychological symptoms/needs, and enabling/inhibiting factors [31]. Items in all study scales were constructed for the Add Health study, having been adapted from widely used measures of mental health and psychosocial functioning. Evidence of construct validity of background scales is provided in Resnick et al. [2], and internal consistency indices (Cronbach alphas) for this study sample are provided in Table 1.

**Demographics.** Study respondents provided demographic information about their age, gender, and ethnicity. As information on parents’ income level was limited in the public use dataset and as a substantial proportion of parents’ occupational status information was absent, parents’ highest educational attainment was used as a proxy measure for socioeconomic status. This was coded according to a six-point ordinal scale, ranging from eighth grade or less to advanced training beyond a college degree. Study respondents were assigned the higher educational status score of either parent (or the single score for respondents reporting information on only one parent).
Psychological symptoms/needs and family connectedness. Five Wave I background predictor variables indicated by prior studies were used as covariates to account for variance in Wave II mental health service use not attributable to adolescents’ victimization [27,34–37]. These included measures of psychosocial adjustment and symptomatology in the domains of depression/anxiety, externalizing behavior, self-perceived disability, and school performance as assessed by academic grade point average (GPA). Given the important roles played by family relationships in adolescents’ use of mental health services shown in prior studies [23,37,38], a global scale of family connectedness was also included as a potential enabling/inhibiting factor. This scale assessed the degree to which adolescents felt positive attachments to, and support from, their family. Several additional psychological symptom/need and enabling/inhibiting variables were examined in preliminary analyses for inclusion as predictor variables, including use of drugs, alcohol, and tobacco; school connectedness; suicidal ideation and behavior; and whether respondents were medically insured. However, preliminary bivariate and logistic regression analyses of these variables found negligible and nonsignificant associations with Wave II mental health service use, and they were therefore dropped from the analyses presented. Table 1 describes each of the background scales employed in the present analyses, exemplar questions in each scale, number of items per scale, and internal consistency (Cronbach alpha) coefficients.

Victimization. While the Add Health study was primarily designed to assess the health behaviors, risks, and status of adolescents, four items assessed adolescents’ personally experienced victimization as part of a “fighting and violence” series of questions in the survey (excluding two items identifying the respondent as a perpetrator and one item not clearly identifying a perpetrator or victim), drawn from Wave I. These included asking the respondent, over the past 12 months, how often (“never,” “once,” or “more than once”): (a) they had been jumped; (b) someone had pulled a knife or gun on them; (c) someone had shot them; or (d) someone had cut or stabbed them. These four items tap commonly represented types of personal victimization on benchmark scales of community violence exposure [29,39]. They were summed to form a scale of adolescent victimization, with a Cronbach alpha coefficient of .61 at Wave I. This modest Cronbach alpha obtained for this sample is consistent with those reported on similar personal victimization indices consisting of relatively few items that tap low base rate events [18,39]. However, in consideration of the modest Cronbach alpha obtained for this sample, two sets of study regression analyses were performed: First the overall victimization scale was entered as a predictor; and next as a follow-up, each victimization item was entered separately in four individual regression analyses.

Mental health service use. The Add Health study did not focus on adolescents’ mental health service use per se. However, as the present inquiry centers on whether adolescents’ victimization may prompt the subsequent receipt of professional mental health counseling support (i.e., apart from only psychological testing and evaluation), focus was placed solely on whether or not mental health counseling services were received in the year between the Wave I and Wave II survey administrations. Mental health service use was thus assessed from a Wave II question asking respondents if they had or had not received professional “psychological or emotional counseling” over the past year. This dichotomous coding of service use (i.e., as “yes”/“no” across a specified time interval) is consistent with earlier studies in this area [34,40,41]. Prior studies have established a high degree of validity in adolescents’ self-reports of professional counseling received when compared against clinical records [42]. Mental health service use questions concerning referral source, length, intensity, or purpose of services were not included as part of the Add Health study.

Procedures and Analysis
Written parental consent and adolescent assent were obtained prior to in-home interviews. Respondents in Waves I and II were read questions, and their answers were recorded directly onto laptop computers. In order to minimize interviewer or parental effects on responses to sensitive questions (such as in the domains of victimization, psychological symptoms, and externalizing behaviors), the respondent listened privately to prerecorded questions via headphones and answered questions directly onto the computer using Audio Computer-Assisted Self-Intervising (ACASI) technology [43]. Participants completed the surveys in 1 to 2 hours, depending on age and their experiences.

Data were analyzed in a univariate to multivariate (logistic regression) fashion using STATA 6.0 software (STATA Corp, College Station, TX). Given the
stratified clustered sampling design of the Add Health survey, data were analyzed designating students’ schools as the primary sampling unit (PSU), and employing student-level sample weights. These adjustments compensate for differences in respondent selection probabilities and differences in response rates across sample groups, accounting for school-level and student-level nonresponse, and minimizing bias in point estimates and standard error terms. They thus allow for the reporting of findings that most closely mirror population parameters, as reflected in estimates drawn from the 1995 Current Population Survey figures [33].

Absolute rates of reported adolescent victimization and subsequent mental health service use were computed first. Next, correlation coefficients were calculated on all study and background variables to examine their bivariate relationships. Pearson r correlation coefficients were calculated for two continuous variables; point-biserial correlation coefficients were calculated for dichotomous-continuous associations; and, phi coefficients were calculated for correlations between two dichotomous variables. In order to assess the unique predictive contribution of adolescent victimization on subsequent mental health service use, logistic regression analyses were then performed, entering Wave I variables as predictors and Wave II mental health service use as the criterion variable. All Wave I predictor variables were entered in the logistic regression analyses as continuous, except for gender and race/ethnicity, which were entered dichotomously, with each racial/ethnic grouping entered using dummy coding (e.g. white/not white). All five ethnicity categories were entered in logistic regression analyses given that categories were not mutually exclusive and that 13.4% of study respondents indicated more than one ethnic identification. No evidence of multicollinearity was present in the study predictor variables as assessed by examining tolerance statistics associated with each predictor variable in the regression analysis [44]. Mental health service use at Wave II was entered as a dichotomously coded criterion variable (“yes/no” regarding mental health service use in the past year). Wave I background covariates were entered as predictors in an initial block of the logistic regression analysis, including demographics, psychological symptoms/needs, family connectedness, and, to control for prior mental health service use history, Wave I mental health service use. Adolescent victimization at Wave I was then entered in the second block of the logistic regression analyses. These analyses produced adjusted odds ratios and 95% confidence intervals. The statistical significance of including adolescent victimization in the predictive model was assessed by calculating a Chi-square improvement, subtracting the −2 log likelihood associated with first block from the −2 log likelihood associated with the second block (df = df_block2 − df_block1).

Results

Adolescent Victimization

Among the 4590 adolescents included in this study sample, 11.3% stated that they were jumped, 11.9% stated that someone had pulled a knife or gun on them, 1.3% stated they had been shot, and 4.9% stated that someone had cut or stabbed them in the past year. Overall, 19.6% of the adolescents in this study sample stated that they had been personally victimized by at least one of these types of violence over the past year.

Adolescent Victimization and Service Use

Table 2 shows the proportions of adolescents victimized at Wave I reporting they received subsequent mental health counseling services at Wave II, as compared with adolescents reporting no victimization. Significantly higher proportions of adolescents threatened with a knife or gun, shot, or stabbed, compared with those not indicating any victimization at Wave I, reported receiving subsequent mental health counseling services at Wave II. Overall, however, adolescents reporting any type of victimization at Wave I did not receive subsequent mental health counseling services at significantly higher proportions than those reporting no victimization.

Bivariate and multivariate analyses were then
conducted to assess the role of adolescent victimization as a significant predictor of subsequent mental health services, accounting for other factors. Table 3 reports bivariate correlations (Pearson r's, point-biserials, and phi coefficients) for all study variables. Although reporting a number of statistically significant correlations, Table 3 bivariate analyses generally discern small correlations among the majority of predictors, covariates, and criterion variables, with selected exceptions. Externalizing behavior is moderately correlated with victimization. Mental health service use at Waves I and II are significantly and mildly positively correlated with depression and anxiety at Wave I. Wave I and Wave II mental health service use are modestly intercorrelated.

In order to assess the independent predictive contribution that victimization might play in adolescents' subsequent use of mental health services, logistic regression analyses were next conducted, entering background variables as covariates. Table 4 reports the adjusted odds ratios, 95% confidence intervals and the Chi-square improvement from the second step of the blocked logistic regression analysis. As shown in this table, of the demographic covariates entered at Step 1, white adolescents reported significantly greater odds of using mental health counseling services. Regarding psychosocial symptom/need indices, greater depression/anxiety, greater externalizing behaviors, and perceived disability each predicted subsequent mental health service use. Lower family connectedness significantly predicted subsequent mental health service use as well. Prior mental health service use showed the greatest predictive role in subsequent mental health service use.

Entering adolescent victimization in the second block of the logistic regression analysis yielded a statistically significant improvement in the predictive model (p = .05). Adolescents' victimization was associated with lower odds of subsequent mental health service use. Given this finding, two additional follow-up analyses were conducted. First, each individual victimization item was examined separately in four follow-up logistic regression analyses (entering an identical set of covariate background predictors), selecting only adolescents who had reported no other victimization experiences on the three remaining victimization items. These analyses indicated that being jumped significantly predicted lower odds of subsequent mental health service use (adjusted OR for being jumped = .62, 95% CI = .41, .94, p = .03) and that being threatened with a knife or gun marginally significantly predicted lower odds of
subsequent mental health service use (adjusted OR = .57, 95% CI = .32, 1.02, p = .06). Being stabbed or cut, and being shot were associated with lower but nonsignificant odds of subsequent mental health service use (adjusted OR for being stabbed = .52, 95% CI = .18, 1.54, p = .24; adjusted OR for being shot = .80, 95% CI = .06, 10.72, p = .87).

Second, to examine whether ongoing victimization over time may yet predict greater mental health service use, the cross product of Wave I victimization and Wave II victimization (Cronbach alpha = .65) was calculated (with a minimum score of 1 rather than 0 set for each scale), and entered in a third block of the logistic regression, after entering covariates and Wave I victimization. Ongoing victimization yielded an adjusted odds ratio of 1.04 (CI = .99, 1.09, not significant), with tolerance statistics indicating no multicollinearity concerns (.35 for Wave I victimization and .38 for ongoing victimization).

### Discussion

This study represents the first systematic examination of adolescents’ use of mental health services following their victimization, and draws from a nationwide prospectively assessed sample. The present findings indicate that approximately one in five adolescents in the study reported one or more types of victimization over a 1-year period, and that, of these victimized adolescents, approximately one in nine received subsequent mental health counseling services at Wave II. This rate compares with approximately one in eleven adolescents receiving mental health services who did not report any victimization, although these differences were not found to be statistically significant. Those adolescents specifically reporting being victimized with a weapon, however (being threatened with a knife or gun, being stabbed or cut, or being shot), did receive subsequent mental health counseling services at significantly higher rates than those not reporting any victimization. Whereas approximately one in eight adolescents threatened with a knife or gun received subsequent mental health counseling services, almost one in five adolescents reporting they were shot received subsequent mental health services.

After controlling for background covariates in logistic regression analyses, adolescent victimization, assessed at Wave I and through ongoing reports at Waves I and II, was not linked with increased odds of subsequent mental health service use. Indeed, adolescents’ overall victimization at Wave I predicted significantly lower odds (13% lower) of receiving subsequent mental health services. In particular, adolescents who had experienced being jumped at Wave I reported 38% lower odds of receiving subsequent mental health counseling services than adolescents not so victimized, and, marginally, adolescents who had reported being threatened with a knife or gun reported 43% lower odds of receiving subsequent mental health counseling services than adolescents not so victimized, and, marginally, adolescents who had reported being threatened with a knife or gun reported 43% lower odds of receiving subsequent mental health counseling services, although some caution must be taken against committing a Type I error with these additional follow-up analyses. As has been documented in earlier studies, ethnicity (white ethnicity), as well as indicators of psychosocial need and symptoms (e.g., higher depression/anxiety, externalizing behavior, disability, and lower family connectedness) appear to play a role in the increased odds of subsequent mental health service use. The results of the logistic regression analyses suggest that it may be these factors rather than adolescents’ victimization per se that appear to account for higher observed absolute rates of victimized adolescents’ mental health service use.

A limitation of the findings reported here is that there may yet be undetected pathways to mental health services that involve their violence exposure, and this suggests that follow-up path analyses (via

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### Table 4. Logistic Regression Analysis Predicting Wave II Mental Health Service Use (N = 4264)

<table>
<thead>
<tr>
<th>Predictor Variable</th>
<th>Adjusted Odds Ratio (95% CI)</th>
<th>Improvement value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Background covariates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Race/ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>2.24 (1.14–1.43)</td>
<td>.02</td>
</tr>
<tr>
<td>African-American</td>
<td>1.37 (1.70–2.69)</td>
<td>ns</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1.39 (1.86–2.22)</td>
<td>ns</td>
</tr>
<tr>
<td>Asian</td>
<td>.88 (1.39–2.00)</td>
<td>ns</td>
</tr>
<tr>
<td>Other</td>
<td>.90 (1.41–2.00)</td>
<td>ns</td>
</tr>
<tr>
<td>Gender (female)</td>
<td>1.20 (1.92–1.56)</td>
<td>ns</td>
</tr>
<tr>
<td>Age</td>
<td>.94 (1.87–1.01)</td>
<td>ns</td>
</tr>
<tr>
<td>Parental education</td>
<td>1.10 (1.97–1.24)</td>
<td>ns</td>
</tr>
<tr>
<td>GPA</td>
<td>.92 (1.73–1.31)</td>
<td>ns</td>
</tr>
<tr>
<td>Depression/anxiety</td>
<td>1.05 (1.03–1.07)</td>
<td>.001</td>
</tr>
<tr>
<td>Externalizing</td>
<td>1.02 (1.00–1.05)</td>
<td>.05</td>
</tr>
<tr>
<td>behavior</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disability</td>
<td>1.94 (1.02–3.70)</td>
<td>.04</td>
</tr>
<tr>
<td>Family connectedness</td>
<td>.98 (1.97–99)</td>
<td>.001</td>
</tr>
<tr>
<td>WI Mental health service use</td>
<td>7.52 (5.70–9.92)</td>
<td>.001</td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WI Victimization</td>
<td>.87 (.76–.99)</td>
<td>4.16 .05</td>
</tr>
</tbody>
</table>

Note: Adjusted odds ratios, confidence intervals and p values are reported at step 2 of the logistic regression analyses. ns = not significant
structural equation modeling) may serve to identify a more clearly traced set of relationships between victimization and mental health service use. For example, the data in this study indicate that higher depression, anxiety, and externalizing behavior predict subsequent mental health service use. Given that several earlier studies have noted that violence exposure predicts heightened depression and externalizing behavior [6,9,18], it is possible that adolescents’ victimization may provoke or heighten depressive/anxious symptomatology and/or externalizing behavior, which later attracts the attention of concerned adults and, ultimately, of mental health professionals. It may thus be that although violence exposure does not appear in the present analyses as a direct prompt for referral to and use of mental health services, adolescents exhibiting mental health sequelae as a result of such experiences may traverse a more lengthy pathway to receiving professional mental health supports [45].

A second related limitation rests in the study’s measurement of key variables. As one example, the publicly available data used in the present study provided only rather crude proxy measures of family socio-economic status, and therefore prevented more precisely tracking its potential role in both adolescents victimization and mental health service use. As well, although the Add Health study taps perhaps the most commonly assessed experiences of personal victimization identified in benchmark measures of community violence, other forms of victimization appearing on these measures are not tapped, such as being chased or being sexually assaulted. As is the tradition of the large majority of studies on interpersonal violence, adolescents’ victimization experiences are assessed through self-report, and may therefore contain some minimization or exaggeration biases. It remains possible that some seriously victimized adolescents were not identified by the victimization questions and that the numbers of adolescents victimized may have been underestimated (or, less likely, overestimated). It is likely, however, that the use of audio computer-assisted self-interviewing technology in this study helped to minimize self-report biases that might otherwise be present in the respondents providing information on their victimization experiences [43].

As this study was not originally designed to assess specific events that precipitated adolescents’ mental health service use, it remains difficult to conclude that specific victimization experiences decrease the likelihood of adolescents’ mental health service use, or, conversely, to rule out that some instances of adolescents’ victimization may lead to subsequent mental health service use. As mental health service use was assessed dichotomously, the present study can not shed light on the nature of mental health services received, for example, the reasons for, and source of referral, their intensity, or the content focus of the counseling provided. Further study is still needed to understand the specific reasons that so few victimized adolescents receive subsequent mental health counseling services, the reasons that their victimization appears linked with a lower probability of service use, and the extent to which access concerns might parallel the barriers encountered by adolescents in accessing health care services more broadly [46]. As well, it remains unclear the extent to which adolescents’ experiences with severe violence may yet form a part of mental health treatment, once services are accessed. For example, given that adolescents victimized by weapons violence do receive mental health counseling services at significantly higher rates, to what extent might violence experiences ultimately enter explicitly into the counseling process, even if they may not appear to serve as initial triggers for mental health service provision? Early evidence in smaller scale studies has raised important concerns that even once mental health services are commenced, adolescents’ victimization outside the home is often overlooked by mental health and other helping professionals [7,22]. If such is indeed the case on a broad scale, significant questions remain not only regarding appropriate access but also appropriate provision of mental health counseling services, once accessed, specifically in relation to adolescents’ victimization.

The present study’s sample appears as largely representative, apart from study participants’ grade point averages and their reported connectedness to their families, both of which may be linked to the expected aging out of Wave I seniors. Analyses from these adolescents’ self-reports suggest that although some of the sequelae associated with victimization experiences (such as externalizing behavior or depression) may trigger action leading to mental health service use, victimization experiences, in and of themselves, may not. Given that the very large majority of adolescents reported receiving no mental health supports shortly after their victimization, along with increasing evidence linking victimization to an array of mental health concerns [9–18], the present findings suggest important unmet mental health needs.

For professionals working with adolescents, the present study’s findings raise particularly important
questions about the detection and provision of timely ameliorative mental health services to many adolescents coping with potentially traumatizing experiences. As health care and other professionals do not often screen for adolescents’ violence exposure [47], formal recommendations to initiate routine screening for violence exposure, such as those recently issued by the American Academy of Pediatrics [48], coupled with the development of violence assessment protocols, should prove as helpful steps for those working with adolescents. Given that approximately one in five adolescents in this national study reported experiencing personal victimization over the prior year, and that, of these, only one in nine received mental health services in a 1-year follow-up, it is likely that routine screening by concerned professionals will uncover many instances of potentially injurious violence exposure previously hidden. Routine and earlier detection may enable both a more timely referral to and receipt of ameliorative professional mental health services.

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