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### Mental Health Follow-Up Among Adolescents with Suicidal Behaviors after Emergency Department Discharge

Brad Sobolewski Assistant Professor MD <sup>a</sup>, Linda Richey Director MSW <sup>b</sup>, Robert A. Kowatch Professor MD PhD <sup>c</sup> & Jacqueline Grupp-Phelan Associate Professor MD MPH <sup>a</sup>

<sup>a</sup> Division of Emergency Medicine, Cincinnati Children's Hospital Medical Center

<sup>b</sup> Psychiatry Intake Response Team, Cincinnati Children's Hospital Medical Center

<sup>c</sup> Department of Psychiatry, Nationwide Children's Hospital

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## Mental Health Follow-Up among Adolescents with Suicidal Behaviors after Emergency Department Discharge

Brad Sobolewski, MD, Assistant Professor<sup>1</sup>, Linda Richey<sup>1</sup>, MSW, Director<sup>2</sup>, Robert A. Kowatch, MD PhD, Professor<sup>3</sup>, Jacqueline Grupp-Phelan<sup>1</sup>, MD MPH, Associate Professor<sup>1</sup>

<sup>1</sup>Division of Emergency Medicine, Cincinnati Children's Hospital Medical Center,  
<sup>2</sup>Psychiatry Intake Response Team, Cincinnati Children's Hospital Medical Center,  
<sup>3</sup>Department of Psychiatry, Nationwide Children's Hospital

Brad Sobolewski, MD, Assistant Professor, Division of Pediatric Emergency Medicine, Cincinnati Children's Hospital Medical Center, 3244 Burnet Avenue, ML 2008, Cincinnati, OH 45229. Phone: (513)636-7966; Fax: (513)636-7967. Email: brad.sobolewski@cchmc.org

### Abstract

**Objective:** To examine mental health follow-up patterns and need for additional urgent ED evaluation in adolescents discharged home from a pediatric ED after an evaluation for suicidal ideation or attempt.

**Methods:** The parent or guardian of suicidal youth ages 11 to 18 years who were discharged from the pediatric ED were interviewed by telephone between one and two months following the initial visit and asked about their child's suicide risk, mental health follow-up, return ED visits, and previous mental health experiences. ED records were also examined for return visits.

**Results:** A parent or guardian of 100 suicidal adolescents was interviewed by telephone. Most (66%) successfully followed up with a mental health provider. Mental health follow-up was more likely in those with an existing psychiatric diagnosis (OR: 3.03 [95% CI: 1.02-9.05]). The majority of those that returned to the ED within two months of their initial evaluation for mental health reasons were admitted [92% (19/21)]. The odds of an ED return visit were increased by a prior inpatient psychiatric admission (OR: 5.23 [95%

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CI: 1.80-15.16]), and a suicide attempt immediately prior to the initial ED visit (OR: 4.87 [95% CI: 1.04-22.69]).

**Conclusions:** Many suicidal youth who are discharged from the ED successfully follow-up with an outpatient mental health provider. However, a significant number do return to the ED within 2 months and require inpatient psychiatric admission. Future ED based interventions should focus on adolescents who attempt suicide and those with a history of prior inpatient admission.

**KEYWORDS:** Suicide, adolescent, emergency department, discharge, follow-up

## INTRODUCTION

Mental health disorders in youth represent a significant and growing proportion of Emergency Department (ED) visits in the United States with 13-50% of mental health visits related to suicidal thoughts or behaviors (Dolan & Fein, 2011; Goldstein, Silverman, Phillips, & Lichenstein, 2005; Grupp-Phelan, Harman, & Kelleher, 2007; Larkin, Claassen, Emond, Pelletier, & Camargo, 2005; Mahajan et al., 2009; Sills & Bland, 2002). Data from National Hospital Ambulatory Medical Care Survey estimated that there were 480,000 self-harm related ED visits in 2002-2003, or 164.7 per 100,000 United States population (95% CI, 135.9-195.5)(Claassen et al., 2006).

In response to a decade of declining mental health care services, EDs now play an increasingly important role as the safety net provider for those with acute mental health problems (Institute of Medicine, 2007; Schappert & Rechtsteiner, 2008, 2011). Despite

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this increased reliance on ED based mental health services there are a number of barriers to the delivery of quality care in the this setting including provider knowledge deficits, limited time for comprehensive evaluation, and lack of access to effective inpatient and outpatient mental health services (Hoyle & White, 2003). Additionally, patients who seek mental health care in the ED consume more resources than those being seen for concerns related to illness or injury. Santiago et al. noted in a 2006 study that adolescents requiring psychiatric evaluation in the ED necessitated monitoring by hospital security more than half of the time, and frequently demonstrated dangerous behaviors (Santiago, Tunik, Foltin, & Mojica, 2006). How these factors translate into ED recidivism is not known.

A recent decade long study from the state of Washington has indicated that psychiatric disorders were the leading cause of hospitalization for adolescents, accounting for one-third of all hospital days (Washington State Emergency Medical Services for Children, 2001). Although two thirds of patients presenting to the ED with suicidal behavior are admitted or transferred to another facility, one third of these high risk patients are discharged (Claassen, et al., 2006). Little is known about youth who are sent home from the ED after an evaluation for suicidal behavior or thoughts. Approximately 50% of children who frequently use mental health services in the ED will be seen again in the ED within two months of their initial visit (Dolan & Fein, 2011). Furthermore, repeat patients are more likely to exhibit harmful behaviors, have a diagnosis adjustment, and be under the care of child welfare services. They are also less likely to be compliant with outpatient follow-up (Dolan & Fein, 2011). In a retrospective cohort of initial ED evaluations for suicidal ideation Stewart et al. found that at 6-month follow-up, one third

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of the patients had returned to the ED, a quarter had a documented suicide attempt, and 14% required psychiatric hospitalization (Stewart, Manion, Davidson, & Cloutier, 2001). Litt et al. reviewed the charts of 27 adolescents that had attempted suicide and noted poor to good compliance with follow-up recommendations after a suicide attempt (33-91%) but did not specifically address children being sent home from the ED (Litt, Cuskey, & Rudd, 1983). Spirito et al. initially interviewed suicidal adolescents 12 to 15 weeks after discharge from a psychiatric facility. A one-month follow-up was added midway through the study to account for high psychotherapy dropout rate. Though their findings were limited by small study size and the heterogeneity of their population, they did find that at one month, 6% reported another suicide attempt, and at three months, 10% had reattempted suicide (Spirito et al., 1992). In a prospective analysis of treatment adherence Piacentini et al found that younger male patients were more likely to be scheduled for and subsequently attend more sessions than their female or older male counterparts. Overall the investigators found a high rate of nonadherence to mental health follow-up and attrition (40%) (Piacentini et al., 1995).

Parents' previous interactions with the mental health care system may also predict mental health service usage for their child. Kekorian and McKay have found an association between parents' previous mental health experience and their perceptions of barriers to their children's use of services in the future (Kerkorian, McKay, & Bannon, 2006). Poor prior experience with mental health services was associated with increased reporting of barriers toward future mental health services use. Thus, parents were less motivated to overcome the obstacles to service use in the future and more likely to question the

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usefulness of treatment for their children if they had an unfavorable experience during their child's prior mental health treatment.

Our first aim in this study was to describe the outpatient mental health follow-up patterns and need for subsequent urgent evaluation in the ED for suicidal adolescents discharged from the ED after an initial mental health evaluation. We also aimed to explore the predictors of successful mental health follow-up, including the impact of previous mental health services experiences.

## METHODS

### Study Design

This was a descriptive cohort study of patients between the ages of 11 and 18 years with suicidal behaviors presenting to two affiliated pediatric EDs between January 23 and May 23, 2010 who were subsequently discharged home after undergoing a history and physical examination and mental health evaluation. The urban pediatric tertiary care emergency department had a patient volume of ~90,000 visits per year, and the affiliated community pediatric emergency department had volume of ~30,000 visits per year. The study was approved by the local institutional review board. Patients were identified via review of the electronic medical record and followed prospectively for two months after their initial ED visit.

### Study Methods

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Patients were eligible for inclusion in the study if they presented to the ED for a mental health evaluation and had a chief complaint describing suicidal ideation or behaviors; or if suicidality was noted in the ED visit documentation either by the psychiatry intake personnel, the EtableD pediatrician, or both. Patients also needed to be between the ages of 11 and 18 years, and ultimately discharged home after their evaluation by an emergency department attending clinician and a psychiatric social worker. Suicidal behaviors were assessed by the psychiatric social worker specifically trained in suicidal assessment and risk using a standardized approach involving a structured interview and were recorded into a template form in the Epic (Epic Systems, Verona, WI) electronic medical record. The interview was conducted with the parents or guardian and the patient, as well as with both parties alone if applicable and included a thorough review of the patient's immediate reason for presentation to the ED, their mental health history including outpatient providers and pharmacotherapy, questions focused on risky behaviors, as well as questions screening for suicidal ideation, gesture, plan, or attempt. The function of this electronic document is to obtain the patient's mental health history in a consistent and reliable manner. It does not contain a validated suicide risk screen, but does attempt to capture important risk factors for suicidality. All patient dispositions were discussed with and supervised by the child psychiatry attending on-call. This process is similar to many pediatric emergency departments where a psychiatric social worker provides an evaluation and disposition in consultation with a psychiatry attending for patients presenting to the ED with suicidal complaints (Grupp-Phelan et al., 2009).

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Patients were excluded from the study if they were less than 11 or greater than 18 years of age, had an existing (Axis III) medical condition requiring intervention, management, or admission to the hospital, possessed a below normal IQ as assessed clinically, presented with non-suicidal self-injurious behavior alone, and were non English speaking as either a primary or secondary language. The parent or guardian of potential study patients were presented with written materials detailing the potential for a follow-up telephone call within one to two months after their ED visit. The institutional review board granted a waiver of documentation of consent.

Patients were identified through a Business Objects InfoView (SAP, Walldorf, Germany) database seeded by the Epic electronic medical record. This initial database, which provided date of visit, age, gender, primary discharge diagnosis, and disposition status (discharge, admit, transfer, eloped) included all patients evaluated by the Psychiatry Intake and Response Center (PIRC) during the specified time period. The data were culled for patients who were discharged home and were between ages 11 and 18.

Individual records of patients eligible for the study were reviewed for documentation of suicidal thoughts or behaviors including: a chief complaint describing suicidal ideation or behaviors; or if suicidality was noted in the ED visit documentation by either by the psychiatry intake personnel, the ED pediatrician, or both. Deidentified demographic and mental health characteristics of eligible patients were then recorded in an Access database (Microsoft, Redmond, WA).

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The patient's parent or guardian was contacted by telephone between one month and two months following the initial ED visit by the Principal Investigator. The one to two month interval was selected to allow enough time for patients to follow up with mental health services and was based on evidence from previous studies showing that the majority of successful follow up occurs within the first month after the initial ED evaluation (Dolan & Fein, 2011; Spirito, et al., 1992). If families were unable to be initially contacted two additional telephone calls would be made on subsequent days, all within one week of the initial attempt to reach them. Subjects were enrolled until 100 had been successfully contacted by telephone.

At the beginning of the telephone conversation the parent or guardian was informed that the data collected during the interview was part of a research study investigating follow up characteristics of adolescents who had presented to the ED with suicidal behaviors. Verbal consent for inclusion in the study was obtained as per the IRB recommendation. The parent or guardian was asked a series of mental health related questions which began with an assessment of their child's current suicide risk, including suicidal thoughts, intent, plan, gesture, attempt, and whether or not they believed their child to be at risk for suicide. If the parent felt that their child was at immediate risk for suicide they were referred to the ED and the Psychiatry Intake and Response Center was immediately contacted. Parents were next asked about discharge instructions, and whether or not they had an appointment already scheduled, or were responsible for doing so on their own. The interview then focused on any difficulty obtaining follow up for their child, and whether or not they had to cancel an appointment, including the reasons for the

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cancellation. Patients that were having difficulty scheduling follow-up were referred to the Psychiatry Intake and Response Center for further assistance. They were then asked if their child had seen an outpatient mental health provider since the initial ED visit, and if so whom, as well as whether or not their child had returned to the ED for a mental health related concern. The interview concluded with the parent or guardian's assessment of their previous experiences with mental health services, either for themselves or for the child in question. All interview responses were recorded in the Microsoft Access Database. When two months had passed since the initial ED visit the medical record was again reviewed in order to determine whether or not patients had returned to the ED after the telephone interview.

## **Outcomes**

The primary outcome as assessed via multivariate logistic regression analysis was successful follow-up with a mental health provider including a psychiatrist, psychologist, therapist, or counselor as identified by the parent or guardian during the telephone interview. The secondary outcome was a return visit to the ED for a mental health concern within two months following the initial visit.

## **Predictors**

Predictors included previous experience with mental health services, demographic characteristics and psychiatric characteristics of the suicidal participants including prior mental health related diagnoses, affiliation with a mental health provider, and previous admission to an inpatient psychiatric facility.

## Statistical Analysis

Data that were collected and entered into the Access database were analyzed by using SAS 9.2 (SAS Institute, Cary, NC). Results were expressed as means or proportions for continuous variables. A power calculation was performed using a significance level of 0.05%, a 2 sided test, and a proportion of 0.2 following up for mental health services in the group that had a negative previous mental health experience compared to a follow-up proportion of 0.5 in the group that had a positive previous mental health experiences. We calculated that 45 children would be needed in each group to detect this difference with a power of 0.8. Chi-square tests were used for bivariable analysis of categorical data (gender, race, insurance status, prior psychiatric diagnosis, admission and provider, suicide attempt, positive parental impression of prior mental health experiences, and parental report of difficulty obtaining/attending outpatient follow-up) while Student's t-tests were used for analysis of continuous data (age). Factors selected for analysis in both outcomes of interest included age, gender, race, insurance status, prior psychiatric diagnosis, prior psychiatric admission, mental health provider, suicide attempt at the time of initial ED presentation, parental impressions of prior mental health experiences, and difficulty obtaining or attending a follow-up appointment. Multivariable logistic regression models were developed in order to determine associations between select demographic, psychiatric, and telephone interview response characteristics and the outcomes of interest. Independent variables from the descriptive analysis with  $P < 0.15$  were included in the multivariable analysis. Adjusted odds ratios with 95% confidence intervals were calculated.

## RESULTS

### Study Population

During the study period 1161 patients between the ages of 11 to 18 years were evaluated by personnel from the Psychiatry Intake and Response Center in the EDs affiliated with our institution. Of these patients 583 (50.2%) were admitted, 505 (43.5%) were discharged home, and 60 were transferred to another facility (5.2%). The remainder were discharged against medical advice ( $5/1161 = 0.5\%$ ), eloped ( $5/1161 = 0.5\%$ ), one patient each were transported to a local juvenile detention center and the institution's child abuse clinic ( $<0.1\%$ ). Of those that were discharged home 139 (27.6%) presented with suicidal behaviors. Following their initial ED visit 100 out of 139 (72%) of these patients' parents or guardians were successfully contacted by telephone for follow-up interviews. There were no significant differences between those successfully contacted and those who were not with regard to age, gender, race, insurance status, prior psychiatric diagnosis, presence of a mental health provider, and history of suicide attempt immediately prior to the initial ED evaluation. No patients necessitated immediate referral to the ED for imminent risk of suicide.

Descriptive characteristics of the patients successfully reached for follow-up are detailed in Table 1. Overall, 84% of patients had at least one previous psychiatric diagnosis by history, with 35% carrying two or more. The population of patients with more than one diagnoses was quite heterogeneous, with no more than six (Depression and Attention Deficit Disorder with or without Hyperactivity) having the same pair of

comorbidities. Overall depression was noted in 26% of the patients, Bipolar disorder in 10%, Anxiety in 6%, and Attention Deficit Disorder with or without Hyperactivity in 29%. Almost a third of the patients were listed as having the preliminary diagnosis “mental and behavioral problems,”<sup>12</sup> of which had another primary diagnosis, most often Attention Deficit Disorder with or without Hyperactivity (7/12). Nearly three fourths had a current or prior mental health provider. Mental health assessment in the ED revealed that the vast majority of patients who were suicidal had ideation alone. One fifth had made a suicidal gesture or had a plan for suicide. Only 9% had a history of a suicide attempt. Four of these 9 patients took an intentional overdose of medications (ibuprofen and sertraline, ibuprofen alone, methylphenidate, and unknown pills respectively), but all were greater than 18 hours prior to the ED visit. No immediate or potential long-term complications were noted. Two patients brandished a knife, whereas one each attempted to drown themselves and run out into traffic.

Overall 64% of parents or guardians described their previous experiences with the mental health system as positive, 20% described their experiences as negative, and 16% indicated that they had no previous encounters.

### **Primary Outcome: Predictors Of Successful Mental Health Follow-Up**

Sixty six (66%) patients successfully followed up with at least one outpatient mental health provider, while 23% followed up with more than one provider. Regardless of how many providers a patient saw in follow up a therapist was the most common (39.4%), followed by a psychiatrist (30.3%), counselor (30.3%), and psychologist (6.1%). Twenty

of the patients that successfully followed up did so via attendance at a partial hospitalization program through the affiliated institution (30.3%). The majority of those that followed up indicated that they had a prior relationship with a mental health provider (51/66 = 77%). Bivariable analyses of patients who did and did not attend a mental health follow-up are shown in Table 2. Prior psychiatric diagnosis and positive parent or guardian impressions of prior mental health experiences were included in the multivariable model, with subsequent logistic regression analysis revealing that one variable was significantly associated with successful outpatient follow-up. Patients with a prior psychiatric diagnosis were more likely to follow-up than were those that did not (OR: 3.03 [95% CI: 1.02-9.05]).

## **Secondary Outcome: Predictors Of Subsequent Short Term Return ED Visit**

Of the 100 patients successfully followed up by telephone 21 (21%) returned to the ED for a mental health related complaint within two months of the initial ED visit. Of these patients 19 (90.5%) were admitted. On average the return visit occurred 12.6 days after the initial evaluation (range 1-32 days). Seven of these twenty one patients (7/21 = 33.3%) had seen a mental health provider prior to returning to the ED. Those that had not seen an outpatient mental health provider returned to the ED within a median of 5.5 days following their initial visit (range 1-19 days).

Bivariable analysis of patients that did and did not have a return ED visit are seen in Table 3. Seven variables were included in the multivariable model; Male gender, prior psychiatric diagnosis, prior psychiatric admission, prior mental health provider, suicide

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attempt at the time of the initial ED visit, positive impressions of prior mental health experiences, and difficulty obtaining or attending appointment. Logistic regression analysis revealed that patients with a history of a prior psychiatric admission were more likely to return to the ED than those that not previously been admitted (OR: 5.23 [95% CI: 1.80-15.16]). In addition, patients that had presented to the ED after having made a suicide attempt were more likely to return to the ED(OR: 4.87 [95% CI:1.04-22.69]).

## DISCUSSION

Many suicidal youth seen in our ED are discharged home after evaluation and follow-up at a rate similar to previously published studies, most often with a psychiatrist, therapist, or counselor (Litt, et al., 1983; Piacentini, et al., 1995; Spirito, et al., 1992; Stewart, et al., 2001). Patients are more likely to successfully attend subsequent outpatient mental health appointments if they have a history of a prior psychiatric diagnosis. The high follow up rate seen in our study potentially reflects the benefits of prior engagement with mental health services in the community as well as the efforts of psychiatry intake social workers and emergency department physicians during the ED evaluation. Of note, almost a third of the patients who followed up did so through the partial hospitalization program. This is a valuable resource that often serves as a bridge between a dedicated inpatient admission and intermittent outpatient follow up (Granello, Granello, & Lee, 1999; Khawaja & Westermeyer, 2010).

Parents' previous interactions with the mental health care system have been shown to predict mental health service usage for their child. Kekorian and McKay found an

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association between a parents' negative previous mental health experience and their perception of barriers to their children's use of services in the future(Kerkorian, et al., 2006). Though parents' overall impressions with previous mental health services in our study were mostly positive, these impressions were not related to subsequent outpatient follow up attendance. The assessment of previous experiences was obtained during a brief telephone interview and could be subject to recall bias. It is also possible that social desirability affected parental responses, as the interviews were conducted by a physician. Responses regarding mental health experiences were also characterized as positive, negative or neutral. An objective validated scoring instrument to assess attitudes about mental health experiences would be a useful addition to study this question further. Overall, our study found a greater than anticipated proportion of parents characterizing their mental health experiences as positive. Post hoc power calculations revealed that we would have required 266 patients in each experience group (positive and negative) in order to detect a difference in mental health follow up.

More than one-fifth of the patients in this study returned to the ED and required inpatient psychiatric admission within two months of their initial visit, many within a very short time interval. This ED return rate is in line with, but slightly lower than previously published studies(Dolan & Fein, 2011; Stewart, et al., 2001). Although it is often difficult to distinguish between a serious suicide attempt and deliberate attention getting non-suicidal self-injurious behavior, our study by definition included a less severe group of suicidal adolescents (those who were deemed safe for discharge after a suicide risk

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assessment). Though many patients in our study went on to have subsequent suicidal ideation, there were no completed suicides.

## LIMITATIONS

This study does possess some notable limitations. Patients were identified from the electronic medical records of a single institution. Our population was predominantly white, with an equal proportion of males and females. This could potentially limit the generalizability of our study, as rates of suicide attempt (but not completion) are higher in adolescent females versus males (Anderson, 2002; "Fatal and nonfatal suicide attempts among adolescents--Oregon, 1988-1993," 1995). Furthermore, subjects were recruited via retrospective review of chart data, including the physician and social workers' notes. However, our standardized interview and documentation methods assured that all of our patients would be assessed for multiple suicide risk factors in addition to those in our multivariate analysis. Patients were only followed for two months after their initial ED visit in order to ascertain whether or not they returned to the ED and thus our analysis may not include some visits made immediately after that follow up period. However, given the high follow-up rate it is conceivable that the highest risk patients, namely those with greater immediate need, returned to the ED within a relatively short time interval. This is something that has been noted in other studies of suicidal youth (Stewart, et al., 2001). As previously noted, many patients in our study were referred to the institutionally affiliated partial hospitalization program. This potentially limits the generalizability of our findings, as this is a resource that is not uniformly available to all healthcare systems.

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As noted earlier, the follow-up assessment of suicidal behaviors was obtained primarily through telephone interview with a parent or guardian. It is certainly possible that some suicidal behaviors may not have been identified by family members, though it is likely that the overt gestures and attempts were. Given that many patients did not receive their follow up care through our institution data on the exact timing and frequency of outpatient mental health utilization was not available. In the short interval following the initial and return visits to the ED it is also unlikely that that subset of our population had more than a maximum of two or three visits. Further study could explore outpatient drop-out rates, especially for those patients referred for outpatient services for the first time.

It is also important to note that this study was conducted during the winter and spring. The incidence of visits to the ED for suicidal behaviors can vary by season, and as such a differing subset of patients may have been seen had the study spanned a longer time interval. Finally a larger sample size would have also increased the precision of our measurements particularly with respect to the effect of previous mental health experiences and their impact on the success of follow-up.

## CONCLUSIONS

Suicidal adolescents that are discharged from the ED after mental health evaluation remain a high-risk group for future suicidal behaviors. In a similar fashion to previous reports, two thirds of our patients also followed up at a high rate with mental health providers. However, of those adolescents who returned to the ED within two months for another psychiatric evaluation, only one third had successfully followed up with a mental

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health provider. Overall, this study highlights the importance of developing interventions that focus on high-risk suicidal adolescents, especially those with prior inpatient psychiatric admission, or those that have attempted suicide. Such interventions should focus on providing a thorough structured interview and expanded suicide screening by personnel trained in suicide risk assessment to all patients presenting to the ED with mental health complaints. Efforts must be made to link patients with outpatient mental health services both at the point of contact in the ED and in follow-up. Resources should be structured so that parents can access information and receive assistance in the interval between ED discharge and outpatient follow up.

Abbreviations: ED – Emergency Department

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Table 1: Patient Characteristics

Patients successfully followed up, N = 100	
Age, mean $\pm$ SD, years	14.5 $\pm$ 2.1
Gender, %	
Male	50
Female	50
Race, %	
White	70
Black	23
Other	7
Insurance status, %	
Commercial	63
Medicaid	34
Self pay	3
Prior psychiatric diagnosis, %	84
Prior psychiatric admission, %	30
Prior mental health provider, %	73
At the time of initial ED visit, %	
Suicidal ideation	89
Gesture	19
Plan	20
Attempt	9
Parental impression of prior mental health experience, %	

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Positive	64
Negative	20
No prior experience	16
Difficulty obtaining/attending follow up appointment, %	
Yes	22
No	73
No response	5

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Table 2: Primary Outcome: Successful Mental Health Follow Up

	Mental health follow up (N = 66)	No Mental health follow up (N = 34)	<i>P</i>
Age, mean $\pm$ SD, years	14.7 $\pm$ 2.05	14.1 $\pm$ 2.11	0.22
Gender, %			1.0
Male	50	50	
Female	50	50	
Race, %			0.82
White	71.2	67.6	
Black	21.2	26.5	
Other	7.6	5.9	
Insurance, %			0.15 <sup>a</sup>
Private	69.7	50	
Public	30.3	41.2	
Self-pay	0	8.8	
Prior psychiatric diagnosis, %	89.4	73.5	0.04 <sup>b</sup>
Prior psychiatric admission, %	28.8	32.4	0.71
Prior mental health provider, %	77.3	64.7	0.18
Suicide attempt at initial ED visit, %	7.6	11.8	0.49
Positive parental impressions of prior mental health experiences, %	87.9	76.5	0.14 <sup>b</sup>

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Had difficulty obtaining/attending follow up appointment, %	19.7	31	0.23
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<sup>a</sup>Not included in Chi-square analysis as none successfully followed up were self-pay

<sup>b</sup>Included in multivariable model,  $P < 0.15$

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Table 3: Secondary Outcome: Return to ED

	Return to ED (N = 21)	No Return to ED (N = 79)	<i>P</i>
Age, mean $\pm$ SD, years	14.7 $\pm$ 1.77	14.5 $\pm$ 2.16	0.74
Gender, %			0.086 <sup>b</sup>
Male	33.3	54.4	
Female	66.7	45.6	
Race, %			0.36
White	61.9	72.1	
Black	38.1	27.9	
Other			
Insurance, %			0.46 <sup>a</sup>
Private	57.1	64.6	
Public	42.9	31.6	
Self-pay	0	3.8	
Prior psychiatric diagnosis, %	95.2	81	0.11 <sup>b</sup>
Prior psychiatric admission, %	12	22.8	0.0023 <sup>b</sup>
Prior mental health provider, %	95.2	67.1	0.0098 <sup>b</sup>
Suicide attempt at initial ED visit, %	19	6.3	0.070 <sup>b</sup>
Positive parental impressions of prior mental health experiences, %	100	79.8	0.024 <sup>b</sup>
Had difficulty obtaining/attending follow up appointment, %	10.5	21	0.14 <sup>b</sup>

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<sup>a</sup>Not included in Chi-square analysis as none successfully followed up were self-pay

<sup>b</sup>Included in multivariable model,  $P < 0.15$