Serving Urban Youth "At Risk" for Depression and Self Harm In-School Based and Community Health Clinics: A Middle School Intervention Pilot

Amy James, Ph.D.[1,2]; Robert H. Aseltine, Jr., Ph.D.[1,2]; Andrea Iger Duarte, LCSW, MPH[3]; Elizabeth A. Schilling, Ph.D.[1,2]

[1]University of Connecticut Institute for Public Health Research, [2]University of Connecticut Health Center, [3] CT Dept. of Mental Health and Addiction Services

Background

Addressing depression symptoms in middle school is essential. Several studies have shown that middle school youth who have experienced symptoms of major depression are at risk for later substance abuse (Deykin, Levy, & Wells 1987; Kelder et al 2001) and risky sexual behaviors in later adolescence and young adulthood (Lehrer, Shrier, Gortmaker & Buka, 2006). Depres7sion screening is particularly appropriate for youth in the state that utilize the services of urban pediatric clinics (Dubowitz et al 2007) and school based health clinics. A national survey of school based health clinics during the 2002-2003 school year indicated that between 12-31% of middle school based health clinics reported depression and grief reactions among the top three problems that are addressed by school based mental health staff (Teich, Robinson & Weist, 2007).

Per a 2006 report to the Connecticut Commissioner of Public Health, and the 2006-2007 Annual Report of Connecticut School Based Health Clinics (DPH, 2009), slightly more than 20,000 students received services annually at school based clinics in the State. Approximately one third the visits to School Based Health Clinics statewide during the 2004-2005 school year and the 2006-2007 school year were for mental health concerns. This number exceeds previously published research regarding the percent of youth utilizing school based health clinics primarily for mental health concerns (Flaherty & Weist, 1999). The DPH (2009) report further reveals that the highest utilization of mental health services for boys occurred in 7-8th grade whereas girls in grades 8-10 most often utilized mental health services at school based clinics during the 2006-2007 school year.

Methods

Target Population

Quirk Middle School enrolled 575 7th and 8th grade students during the 2007-2008 school year and 583 during the 2008-2009 school year. Per the Strategic School Profile provided to the State Department of Education (2007-2008), the student body of Quirk Middle School was 1% white, 78% Hispanic, 20% Black and 1% other. The majority of these students (73%) come from homes where English is not the primary language and 39% were identified as needing ESL services. Almost all of the students (95%) qualify for free or reduced price meals.

Participants

Middle school youth (n=806) in grades 7-9 were screened as part of well child visits at 2 urban school based health clinics and an urban outpatient pediatric clinic as part of "well child visits during the 2007-2008 school year and the 2008-2009 school year.

Recruitment

School based clinics screened more (n=524) youth in the target range during the 10 month school year than the community based pediatric outpatient clinic (n=282) which was open year round. Although the "at-risk" rate was slightly higher in the outpatient clinic (16%) than the school based health clinic (14%) the school based members of the research team were far more effective in recruiting those students who needed services into the study. A total of 66 at risk youth were recruited to participate in the study.

Hypotheses and Inclusion

School Based Health Centers will be more successful in identifying middle school youth (grades 7-9) at risk for depression and suicide and providing services to this population than a community based pediatric clinic

Screened as part of "Well Child" visits at 2 Urban School Based Health Clinics and one Urban Hospital Based Pediatric Outpatient Clinic

Measures

All youth were screened with the Reynolds Adolescent Depression Scale-2 (RADS-2) instrument selected by the research staff at St. Francis (reported sensitivity 78-1.0, specificity .90)(Levitt, Saka, Romanelli & Hoagwood, 2008; Reynolds & Mazza, 1998).

Inclusion cutoff of 77 and/or endorsement of Self Harm "critical item"

Results

Prevalence information depression (RADS-2 77+) and endorsement of critical item for self harm at baseline by gender, race/ethnicity, and grade for participants with complete data is presented in Table 2.

Table 1. Numbers Screened Positive

	Grades 7-9 Pediatric Clinic	Grades 7-9 School Based Health Clinic
Total Screens	282	524
Positive	44	73
Consented At Risk	9	54

Table 2. Prevalence of Depression and Self Harm

		RADS-2 77+		Critical Item Self Injury only	
		N	%	N	%
Gender	Female	35	72.9	10	66.7
	Male	13	27.1	5	33.3
Grade	7	23	47.9	9	60.0
	8	15	31.2	5	33.3
	9	10	20.8	1	6.7
Ethnicity	Black	10	20.8	3	20.0
	Hispanic	35	72.9	12	80.0
	Multi/Other	2	4.2	0	
	White	1	2.1	0	

Figure 1. Direct Services Provided to Youth At Risk

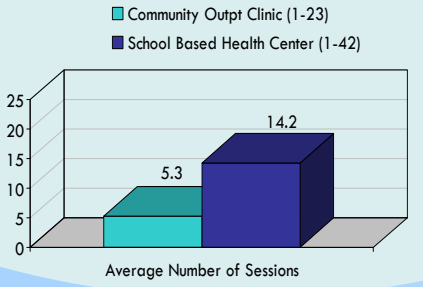


Figure 2. Mean RADS-2 and Endorsing Self-Harm for At Risk Youth

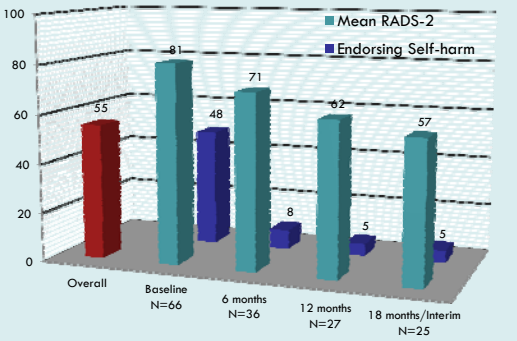
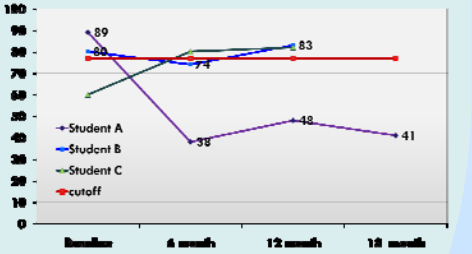


Figure 3. Trends in RADS-2 Scores



Summary and Conclusions

Youth seen at the school based clinics received and kept more mental health appointments than those seen at the outpatient clinic. School based mental health practitioners are part of the academic community and are more effective than those in outpatient settings in providing services and follow up for younger teens. These findings are consistent with previously published research addressing youth seen for mental health concerns at school based health clinics.

Acknowledgements

Many thanks to our partners:

- St. Francis Outpatient Pediatric Clinic in Hartford, CT
- Quirk Middle School SBHC
- Hartford HS SBHC
- Aric Schicor, M.D.
- Jennifer Paul, Ph.D.
- Robin Surillo, Ph,D.

References

1. Moscicki EK. (1999). Epidemiology of suicide. In Jacobs DG, ed. *Guide to* Connecticut State Department of Public Health (2009). *Connecticut School based health centers: Healthy students make better learners 2006-2007 Annual report* www.ct.gov/...health/...school/annual_report_0607_final_5-06-09_pdf.pd
2. Dubowitz, H., Feigelman, S., Lane, W., Prescott, L., Blackman, K., Grube, L. Meyer, W., & Tracy, J.K. (2007). Screening for Depression in an Urban Pediatric Primary Care Clinic. *Pediatrics, 119*, 3, 435-443.
3. Flaherty, L.T., Weist, M.D. & Warner, B.S. (1996). School-based mental health services in the United States: History, current models and needs. *Community Mental Health Journal, 32*, 4, 341-252.
4. Flaherty, L.T. & Weist, M.D.(1999). School-based mental health services: The Baltimore models. *Psychology in the Schools, 36*, 5, 379-389.
5. Hollander, D. (2006). Symptoms of depression in middle school teenagers linked to risky behavior. *Perspectives on Reproductive Health. 38*, 4, 230.
6. Goodman, S.H., Schwab-Stone, M., Lahey, B.B.; Shaffer, D. & Jensen, P.S. (2000). Major Depression and Dysthymia in Children and Adolescents: Discriminant Validity and Differential Consequences in a Community Sample. *Journal of the American Academy of Child & Adolescent Psychiatry, 39*, 6,761-770.
7. Kataoka, S. H., Stein, B. D., Jaycox, L.H., Wong, M., Escudero, P., Tu, W., Zaragoza, C., & Fink, A. (2003). A school-based mental health program for traumatized Latino immigrant children. *Journal of the American Academy of Child and Adolescent Psychiatry, 42*, 3, 311-318.
8. Kelder, S.H., Murray, N.G., Orpinas, P., Prokohorov, A., McReynolds, L., Zhang, Q. & Roberts, R., (2001). Depression and substance abuse in minority middle school students. *American Journal of Public Health, 91*, 5, 761-766.
9. Levitt, J.M., Saka, N., Romanelli, L. H., & Hoagwood, K. (2007). Early identification of mental health problems in schools: The status of instrumentation. Journal of School Psyhcology, 45, 163-191.
10. Newsom-Stewart, M. (2004). *2004 School Health Profile.* Litchfield, CT: Education Connection.
11. Reynolds, W. M. & Mazza, J.J. (1998). Reliability and validity of the Reynolds adolescent depression scale with young adolescents. *Journal of School Psychology, 36*, 3, 395-312.
12. Smith, S. W. (2006). Integrated care: The process of providing mental health care in primary care practices-the time is now. *The national AHEC Bulletin, 23*, 1, 41-42.
13. Teich, J. L., Robinson, G. & Weist, M. D. (2007). What kinds of mental health services do public schools in the United States provide. *Advances in School Mental Health Promotion, 1*, 13-22.
14. Vander Stoep, A., McCauley, E., Thompson, K. A., Herting, J. R., Kuo, E. S., Stewart, D.G., Anderson, C.A. & Kushner, S. (2005). Universal emotional health screening at the middle school transition. Journal of Emotional and Behavioral Disorders, 13, 4, 213-223.