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The Use of Student Self-Reporting vs. Teacher Identification of Depression in School-Age Children

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Background

- Depression is one of this nation's silent evils, affecting 18 million Americans.
- Investigators are only now beginning to understand that depression is the underlying basis for the destructive trend of alcohol and substance abuse, bullying, acting out in class, and the shootings at Columbine and other schools.
- School teachers and administrators cannot identify depression in their students, do not understand the manifestations of the disease, and have drastically miscalculated the magnitude of the role that depression plays in undermining student mental health, academic success in school, and a healthy school environment.
- Researchers are aware that depression exists in school-age children, but very little research has been done with children in the school environment; no large-scale screenings have been conducted in schools to be used as an early waning device to identify depressed students.
- In two studies where teachers are used to determine which of their students are depressed (Epkins, 1995 & Augur, 2004), teachers shared some agreement with the children's self-reporting.

Research Question

It is important to discover the most efficient and effective way to identify depression among school children en masse. Therefore, is the self-reporting of students a better predictor of depression than reports and evaluations of elementary and middle-school teachers?

Methods

Inclusion Criteria:
- Articles published in 1995 or later
- Elementary and Middle School-aged children
- Different geographical locations and venues
- Any gender or ethnicity but not a factor here

Exclusion Criteria:
- Studies without statistical analysis.
- Studies published in foreign languages
- Studies published as abstracts only
- Studies which did not have a self-reporting component as a part of their methodology.
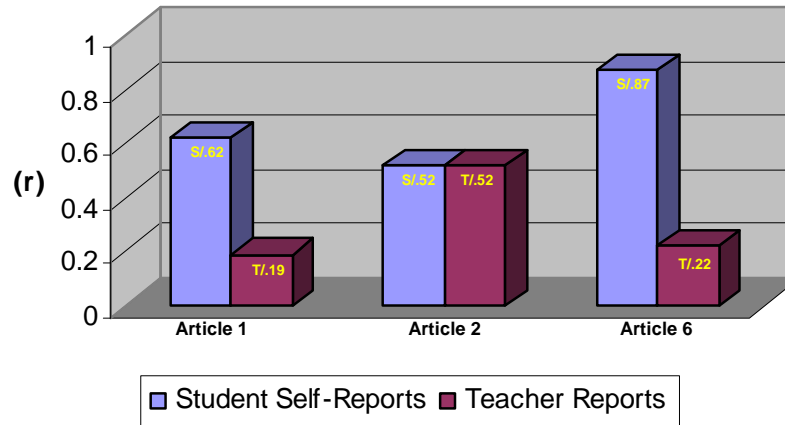
Search Process
- Sources: PubMed, WebMD, OVID, Medline, Google, published systematic reviews and meta-analyses.
- Search terms: depression, school-aged children, self-reporting of depression, teacher reporting of depression; depression inventories
- All three authors mutually agreed upon criteria to meta-analysis article candidates. This included hypothesis-driven studies.
- Potential candidate articles were later excluded if they did not have a self-reporting methodology; qualitative screening methods were excluded. This included Article #3-#5.
- Attrition rates reviewed to determine whether or not they affected the end results of each study

Statistical Analysis
- Sample sizes and correlation factors of each study were entered as data in the computer software program Schwarzer's Meta Analysis Freeware (Schwarzer, 1989).
- Data collection included screenings using student self-report and teacher evaluations; reporting instruments varied by study; appropriate ethical procedures were followed.
- Statistical tests included: weighted and unweighted Z-values, significance, and corresponding effect size (to adjust for varying sample sizes). See Results for Fail-Safe N values. Tests of homogeneity were also utilized to assess whether or not the sample populations and results were consistent. See Results for Chi-square values.

Findings

Student Self-Reports vs. Teacher Reports as a Predictor of Depression

Bar chart — y-axis (r) from 0 to 1.
- Article 1: Student Self-Reports S/.62; Teacher Reports T/.19
- Article 2: Student Self-Reports S/.52; Teacher Reports T/.52
- Article 6: Student Self-Reports S/.87; Teacher Reports T/.22

Legend: ■ Student Self-Reports ■ Teacher Reports

Data Abbreviated Sheet

Article #	Abbreviated Title	Research/Hypothesis Tested	Conclusion	Variable of Interest	Statistics Used	Sample Sizes/ Controls Used	Meaningful Statistics
1	*Accuracy/Teacher Reports…*	Can Teachers predict depression as well as student self-reports?	Not a good predictor	Correlation of success	M=74.24; SD=11.50	N=62 N=62	.87; .22 (r.); Chi-square
2	*Early Warning…*	Can Teachers predict depression as well as student self-reports?	Teachers not good predictor	Correlation of success	M=85.61; SD=13.16 M=84.20; SD=34.85	N=171 N=171	.62; .19 (r.) Chi-square
3	Metasynthesis	None	Qualitative	Qualitative/Self-Report	None	N=107	
4	Placebo-Controlled	Effectiveness of school-based program	Experimental Double-Blinded	Qualitative	SD=7.14; P, ARR, CI 95%	N=392	
5	Predictors of Efficacy	Metanalysis of qualitative program	Qualitative	Qualitative	Mean Effect Size; P-values	N=512?	
6	*Teacher Ratings…*	Can Teachers predict depression as well as student self-reports?	Reasonable predictor	Correlation of success	M=74.40; SD=32.54 M=59.08; SD=22.07	N=83 N=67	.52; .52 (r.) Chi-square

Only the boldfaced studies were used in this meta-analysis.

Results

- Three studies in two parts with total sample size of N=1225.
- Elementary & middle school children, ages approximately 7 - 13
- 610 females, 615 males
- Ethnic percentages were used in some of the articles but not all; hence, these were not considered in the meta-analysis.
- None of the articles used P-values as a measurement; cited r factors were used and converted to effect sizes.
- Among self-reporting students, population size effect (unweighted mean r) = .67
- Among teacher reports, population size effect (unweighted mean r) = .31
- Fail-Safe N values were calculated: for students, 35.57 for a critical r of .05; for teachers, 13.95 for a critical r value of .05.
- Chi-Squares were somewhat large; 26.37275 (2 DFs) for student self-reporting and 15.0873 (2 DFs) for teacher reports. There was a factor of heterogeneity in the analysis.

Conclusions

Strengths
- The results supported other individual studies where actual self-reporting of school children was a better indicator of true depression without the factor of false-positives introduced by teacher reporting.
- The r-factors of .67 was a strong measure of correlation for student self-reporting.

Limitations
- Only three studies were accessible that used reporting by both children and teachers as part of the methodology.
- Although all children were of school age, not all were surveyed in schools; some studies were conducted in residential psychiatric facilities and some used community-based teachers.
- Confidence factors using P-values were not available; however, the Schwarzer Meta-Analysis software allowed for the conversion of other statistical factors.

Recommendations for Practice
- False-positives will continue to be a problem with the evaluation and reporting of teachers, even when they have received training to identify depressed children.
- Once depressed children are identified, a triage of medical interventions will be necessary, from something as simple as a conversation with a parent and/or counselor to psychiatric intervention with and without medication.

References

Anderson, P., Jane-Llopis, Jenkins, R., E., Hosman, C., Jenkins, R. (2003). Predictors of efficacy in depression prevention programmes. *British Journal of Psychiatry, 183.* 384-397.

Auger, R. (2004). The accuracy of teacher reports in the identification of middle school students with depressive symptomology. *Psychology in the Schools, 41(3).* 379-389.

Bir, J., Cunliffe, R., McDowell, H., Merry, S., Wild, C. (2004). A randomized placebo-controlled trial of a school-based depression prevention program. *Journal of the American Academy of Child and Adolescent Psychiatry, 43(5),* 538-547.

Dundon, E. (2006). Adolescent Depression: A Metasynthesis. *The Journal of Pediatric Health Care, 20(6),* 384-392.

Epkins, C. (1995). Teachers' ratings of inpatient children's depression, anxiety, and aggression: a preliminary comparison between inpatient-facility and community-based teachers' ratings and their correspondence with children's Self-Reports. *Journal of Clinical Child Psychology, 24, 24(1),* 63-70.

Phares, D. (2007). *Early Warning System: The Use of Routine Depression Screenings as a Predictive Tool in Elementary & Middle Schools.* Unpublished doctoral dissertation. Southern California University for Professional Studies, Santa Ana.