

The Journal

OF AT-RISK ISSUES

Volume 18
Number 1



A Publication of the National Dropout Prevention Center/Network

The Journal OF AT-RISK ISSUES

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The Journal of At-Risk Issues

(ISSN 1098-1608) is published biannually by the National Dropout Prevention Center/Network, College of Health, Education, and Human Development at Clemson University, 209 Martin Street, Clemson, SC 29631-1555; Telephone 864.656.2599; Fax 864.656.0136 www.dropoutprevention.org

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Research reports describe original studies that have applied applications. Group designs, single-subject designs, qualitative methods, mixed methods design, and other appropriate strategies are welcome. Review articles provide qualitative and/or quantitative syntheses of published and unpublished research and other

information that yields important perspectives about at-risk populations. Such articles should stress applied implications.

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Manuscripts should follow the guidelines of the *Publication Manual of the American Psychological Association* (6th ed.). Manuscripts should not exceed 25 typed, double-spaced, consecutively numbered pages, including all cited references. Submitted manuscripts which do not follow APA referencing will be returned to the author without editorial review. Charts and figures should be clearly labeled and sent as separate jpeg documents, at least 300 dpi resolution.

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Submit electronically in Microsoft Word, including an abstract, and send to the editor at edu_rar@shsu.edu for editorial review. Manuscripts should also include a cover page with the following information: the full manuscript title; the author's full name, title, department, institution

or professional affiliation, return mailing address, email address, and telephone number; and the full names of coauthors with their titles, departments, institution or professional affiliations, mailing addresses, and email addresses. Do not include any identifying information in the text pages. All appropriate manuscripts will be submitted to a blind review by three reviewers. Manuscripts may be submitted at any time for review. If accepted, authors will be notified of publication. There is no publication fee.

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Submit Manuscripts to

Dr. Rebecca A. Robles-Piña,
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Table of Contents

Articles

- Inclusion Professional Development Model and Regular Middle School Educators
Otelia Royster, Gary L. Reglin, and Nonofa Losike-Sedimo 1
- Identifying Aftercare Supports for Out-of-Home Transitions: A Descriptive Analysis of Youth Perceptions and Preparedness
Alexandra L. Trout, Jacqueline Huscroft-D'Angelo, Michael H. Epstein, and Jane Kavan..... 11
- Substance Use Prevention Among At-Risk Rural Youth: Piloting the Social Ecological One Life Program
Ronald D. Williams, Jr., Jeremy T. Barnes, Thomas Holman, and Barry P. Hunt 19
- Willful Ignorance? The Dropout Crisis and United States Public Education Policy
Allen L. McMurrey 27
- Using Social Disorganization Theory to Guide Substance Abuse Prevention Among Adolescents: Implications for Educators
Shane Jaynes 35

Inclusion Professional Development Model and Regular Middle School Educators

Otelia Royster, Gary L. Reglin, and Nonofa Losike-Sedimo

Abstract: *The purpose of this study was to determine the impact of a professional development model on regular education middle school teachers' knowledge of best practices for teaching inclusive classes and attitudes toward teaching these classes. There were 19 regular education teachers who taught the core subjects. Findings for Research Question 1 showed teachers' knowledge of inclusive classrooms increased from pretest to posttest. Findings for Research Question 2 revealed teachers' perceptions on inclusive classrooms changed from preimplementation to postimplementation. Both increases had a large effect sizes. For Research Question 3, the most reoccurring theme was teachers do have a positive attitude towards teaching inclusive classes.*

Dettmer, Thurston, and Dyck (2005) indicated that the degree to which regular and special education classroom teachers are trained and willing to work together in inclusive classrooms has a great impact on the success of inclusive programs. Being able to collaborate effectively is important for teachers who work together to serve students with learning disabilities in regular education classrooms. Vaughn, Bos, and Schumm (2000) revealed that effective professional development provides regular education teachers with knowledge and skills in how to effectively communicate for the purpose of solving classroom problems and providing continuity across instructional settings.

At the targeted middle school, teachers did not feel they had the understanding and knowledge of inclusion and an acceptable confidence level in implementing inclusion. Inclusion is the practice of effectively placing and working with students with disabilities in the regular classroom. Rea, McLaughlin, and Walther-Thomas (2002) referred to inclusion as, "providing all students, including those with significant disabilities, equitable opportunities to receive effective educational services with needed supplementary aids and support systems in age-appropriate classrooms in their schools in order to prepare these students to lead productive lives in society" p. 7.

Statement of the Problem

During the past four years (2007-2011), regular educators at the targeted middle school lacked the training to teach students with disabilities in inclusive classrooms. Teachers perceived that students with mild to moderate disabilities should not be in the general education classrooms. These teachers' beliefs were consistent with the findings of studies investigating the perceptions of other regular educators (Stockall & Gartin, 2002). Teachers at the

targeted school were beginning to have a greater level of frustration, students were being referred out of the classroom by the regular education teacher and a number of students were being sent to the special education classroom by the administrator. Due to little professional development on teaching in inclusive classrooms, regular educators appeared to possess no knowledge of best practices in teaching inclusive classes and displayed negative attitudes toward inclusive classrooms and working with students with learning disabilities.

There are many studies that show the benefits of inclusive classrooms and the need for more professional development for teachers who teach the inclusive classes (Kamens, Loprete, & Slostad, 2003). For instance, Rea et al.'s (2002) research investigated the relationship between placement in inclusive and pullout special education programs and academic and behavior outcomes for students with learning disabilities (LD). The population consisted of all students with LD in the eighth grade in two middle schools in a suburban school district in the southeast.

From the study, a conclusion was students with disabilities included in general education classrooms achieved better outcomes on some measures than did their peers in pullout programs (Rea et al., 2002). The researchers further revealed that students with LD served in inclusive classrooms achieved higher course grades in language arts, mathematics, science, and social studies than students with LD in pullout programs. Students with LD in inclusive classrooms experienced less in-school and out-of-school suspensions than did students in pullout programs. Students with LD served in inclusive classrooms attended more days of school than those in pullout programs. The researchers indicated that effective inclusive classroom can close the achievement gap between the regular and the special education student (Rea et al., 2002).

Goetz, Hunt, and Soto (2002) contended that professional development was required for teachers of inclusive classes in order to further close the achievement gap between the special education and the regular education student. The researchers argued that the changing role for classroom teachers necessitated a new emphasis in professional development programs. Teachers, both in general education and special education, need professional development in order to develop effective instructional and interpersonal skills in the delivery of classroom-based services for students with disabilities (Graue & Brown, 2003). In addition, professional development programs should ensure that educators develop well-honed classroom management skills for inclusive classes that will ensure greater teacher confidence and student success.

Garcia (2004) revealed that regular education teachers who successfully include students with disabilities in their classrooms demonstrate that they value the uniqueness of each child. In doing so, the regular education teacher helps break down barriers that artificially limit students with disabilities; they debunk myths about educating these students and the myth the students cannot experience a high degree of academic success. Garcia (2004) contended that as the role of the regular education teacher continues to evolve, many of today's teachers have already demonstrated inclusive education can be done successfully anywhere well-trained, competent, and caring educators choose to extend their own learning and professional development on behalf of all children.

Walther-Thomas, Korinek, McLaughlin, and Williams (2002) studied 23 schools over a 3-year period as new co-teaching models were implemented in eight school districts. Data were collected through interviews, surveys, and observations. The qualitative data showed teachers and administrators perceived many benefits for students with learning disabilities and regular education students. Students with disabilities developed better attitudes about themselves and others in inclusive classrooms. They became less critical, more motivated, and learned to recognize their own academic and social strengths. A large majority of special education students showed academic improvement and very few were removed from general education placements because of inability to cope with academic and social demands. Many other low-achieving students also showed academic and social skills improvement in inclusive classes (Walther-Thomas et al., 2002).

Purpose of the Study

The purpose of this study was to determine the impact of a professional development model on regular education middle school teachers' knowledge of best practices for teaching inclusive classes and attitudes toward teaching the inclusive classes. The Inclusion Professional Development Model (IPDM) was based on a formalized training curriculum, *Building Inclusive Schools: Tools and Strategies*, by Halvorsen and Neary (2009). According to Halvorsen and Neary (2009), the formalized training curriculum was based on years of classroom research on inclusion and was written to train teachers, service providers, school site teams, and professional development coordinators.

The IPDM targeted six major areas of the Halvorsen and Neary training curriculum that were important to the professional develop-

ment of regular education teachers relative to teaching successful inclusive classes (Halvorsen & Neary, 2009). The major areas had training activities and knowledge assessment questions. The areas were (a) inclusion defined, (b) planning for individual student needs in the inclusive classrooms, (c) systematic instruction in inclusion classrooms, (d) peer relationships and support, (e) collaborative inclusive service delivery, and (f) evaluation (Halvorsen & Neary, 2009)

Inclusion and Achievement

Halvorsen and Neary (2009) emphasized the instruction of special needs students must embrace human diversity as an expected and valued characteristic among students. To achieve this goal, a growing number of schools are practicing "inclusion" education in which students with disabilities are placed in a "regular" classroom and participate in all school activities. Inclusion has proved to be successful when it concentrates on several key factors: ongoing professional development for regular and special education teachers, knowledgeable teachers about special education terms, law, and issues; positive teacher attitudes toward inclusion; effective collaborations between special and regular educators; individualized support for students with disabilities; and instruction that recognizes each student's chronological age, personal preferences, and individual potential structured around a curriculum to accommodate learning styles of a diverse student population.

Kauffman, Landrum, Mock, and Sayeski (2005) reported in some middle and high schools, inclusion may mean that only students with mild disabilities are educated in the regular education classroom and only for their core academic subjects. Other schools' inclusive practices may have all students with disabilities, regardless of the severity of the disability, educated for the entire day in regular education classrooms while receiving only supportive services from the special education teacher. This latter example of inclusion is referred to as full inclusion. Not all educators concur with the premise of full inclusion.

McDonnell et al. (2003) included the achievement of students with developmental disabilities in a study and compared the achievement level to that of their peers without disabilities in inclusive classroom settings. They investigated the impact of inclusive educational programs on the achievement of students with and without developmental disabilities. Changes in the adaptive behavior of 14 students with developmental disabilities during one school year were measured in a quasi-experimental, pretest-posttest design. McDonnell et al. (2003) reported achievement gains in the adaptive behaviors of all 14 students with developmental disabilities. He also compared the achievement of 324 students without disabilities enrolled in inclusive programs with 221 students without disabilities who were not exposed to inclusive programs. Results indicated that the academic performance of students without disabilities involved in inclusive programs was no different than those who were not involved in an inclusive program.

Teacher Attitudes Toward Inclusion

The research of Boscadrin (2005) showed that negative attitudes of teachers involved in inclusion programs can undermine the efforts of administrators to implement inclusion. They conducted a study, which investigated the attitudes of middle school regular educators

who taught in inclusive classrooms. Of the 71 teachers who were surveyed, the majority of regular educators either disagreed with the concept of inclusion or did not have positive feelings regarding the issue. Carpenter and Dyal (2007) research showed that when principals, teachers, counselors, parents, aides, and other school personnel have negative perspectives about inclusive education at a particular school, teachers in inclusive classrooms at that school find it very challenging to achieve a high level of success because there are no positive support networks to help them. Their research study concluded that negative perspectives about inclusive education make schools that try to implement inclusive classrooms likely candidates for failure.

Boscadrin (2005) reported there are strategies school personnel can employ to help avoid and to reduce negative attitudes about inclusion. The strategies are based on the principles in Bandura's (1986) social cognitive theory. School personnel can begin each school day by giving themselves and others affirmations. School personnel can say something positive about themselves and a colleague, and then say something positive they will do for the regular and special education students at the school. They can write down positive thoughts on a sticky note and place the notes somewhere so it will be seen throughout the day, such as on the bulletin board in the school hallways and classrooms and in locations at the school where students tend to congregate (e.g., bus stop, cafeteria, gymnasium, and library).

Idol (2006) suggested school personnel can display encouraging thoughts throughout their school and provide simple recognition for staff members' hard work. These traits will help to better establish a positive schoolwide climate. Maxwell (2006) reported another way to avoid negative thinking is for school personnel to read a passage out of an inspirational book each morning. If the school person does not have time to do the reading in the morning, he or she can reserve a specific time during the day to evaluate daily thoughts and feelings, even if it is just for five minutes. Reflective journaling of thoughts is another way to focus on the positive and not the negative. When feeling frustrated and overwhelmed, teachers can write down the feelings and think critically about what triggered the feelings and what can be controlled in the environment to change those feelings into something positive. According to Maxwell (2006), when feeling incapable of finding a solution, ask for advice from another teacher, principal, counselor, or friend. No good comes from harboring negative thoughts and attitudes about inclusion and working with special education students in inclusive classrooms.

Professional Development

Hang and Rabren (2009) revealed that teaching strategies should be aligned with the needs of individual students if these strategies are to be successfully learned in inclusive classrooms. Special and regular education teachers need training and experience in evaluating student learning (e.g., performance-based assessment, group projects, or portfolio assessment). Behavior management is very important when dealing with students with disability, and teachers must know the proper accommodations for each student in order to respond in a lawful, caring, and effective manner.

Dukes and Lamar-Dukes (2006) emphasized that there is no one strategy by which to practice inclusive education, but the underlying belief that all professionals are responsible to promote the academic

and social development of all students is vital to the effective practice of inclusive education. Treder, Morse, and Ferron (2000) indicated that teachers who participated in effective training programs to increase their knowledge of what should be going on in inclusive classrooms and acquired the teaching skills, classroom management skills, confidence, and time management skills, have significantly more positive attitudes towards inclusion. Bull, Overton, and Montgomery (2000) emphasized that training programs can only be successful when the outcomes fostered are relevant to teachers' and the needs of students in an inclusive setting.

Humphrey and Martinez (2006) reported that principals can support the training efforts of regular education teachers to facilitate better inclusive classrooms. Principals can ensure that regular education teachers have the resources and materials they need to work with all students in their classrooms. Needs assessment can help identify training and consultation needs among teachers. Principals might support regular education teachers by providing ample opportunities to attend professional development workshops. They can provide on-site training as well as incentives for teachers to attend local and national conventions that provide information for expanding their problem-solving repertoires. Humphrey and Martinez (2006) insisted principals should encourage teachers to search the Internet or the local university library for research-based intervention strategies they can implement in their classrooms.

Method Participants

Teacher participants in this study were a convenience sample of 19 regular education teachers at the targeted middle school. The 19 teachers instruct core subjects such as mathematics, social studies, science, and English and language arts; 10 teachers possessed a bachelor's degree, and nine teachers had a master's degree. Relative to ethnicity, 16 teachers were African Americans, two teachers were White Americans, and one teacher was Filipino American. In regards to gender, there were 16 females, and three males.

Instruments

The data collection instrument for Research Question 1 was the IKT which was organized into two sections. Section I had directions for the teacher respondents. Section II had 16 statements that came from the professional development training modules of Halvorsen and Neary (2009). The statements appeared at the end of the six modules and were used to evaluate teachers' knowledge of effective inclusion strategies resulting from their participation in the IPDM. The six modules were: (a) inclusion defined, (b) planning for individual student needs in the inclusive classrooms, (c) systematic instruction in inclusion classrooms, (d) peer relationships and support, (e) collaborative inclusive service delivery, and (f) evaluation (Halvorsen & Neary, 2009).

The data collection instrument for Research Question 2 was the TATIS (see Appendix B). According to (Cullen & Gregory, 2010), the TATIS was found to be a strong predictor of the success of efforts to create inclusive learning communities. Cullen and Gregory indicated the TATIS was subjected to principal components analysis to confirm its construct validity. Cullen and Gregory (2010) reported that the

reliability of the TATIS was confirmed through the Cronbach alpha reliability procedure. The results revealed that along with the strong factor loading indicating acceptable content validity, the reliability of the instrument was assessed and found to have an overall reliability coefficient of 0.821. The alphas of each of the factors were also computed to be: (a) attitudes toward teaching students with disabilities in inclusive settings = .803, (b) beliefs about professional roles and responsibilities = .863, and (c) beliefs about the efficacy of inclusion = .680.

According to Creswell (2008), test-retest reliability is a measure of the consistency of a test or a survey. This kind of reliability is used to determine the consistency of a test or survey across time. Test-retest reliability is measured by administering a test or survey twice at two different points in time (Creswell, 2008). The test-retest method was established for the study using a sample of 19 middle school regular education teachers with demographics similar to the 19 teachers in the study. The teachers were administered the two instruments, and 14 days later they participated in a second administration of both instruments. Survey scores were inserted into the Statistical Package for the Social Sciences (SPSS) version 19.0 data file. Next, SPSS computed the reliability coefficient for each instrument. The coefficient of stability was .83 for the IKT and .89 for the TATIS. According to Creswell (2008), both reliability coefficients are acceptable for research studies.

The data collection instrument for Research Question 3 was the Teachers' IPDM interview instrument. The interview purpose was to qualitatively determine whether teachers' knowledge and perceptions changed relative to best practices in an inclusion setting. It was organized into two sections. To enhance the validity of the IKT, TATIS, and IPDM interview instruments, content validity was established using 10 experts to review and to critique the instruments. The experts were educators.

Inclusion Professional Development Model

The Inclusion Professional Development Model (IPDM) had six topics that were addressed in the 9-week treatment period. The six modules were: (a) inclusion defined, (b) planning for individual student needs in the inclusive classrooms, (c) systematic instruction in inclusion classrooms, (d) peer relationships and support, (e) collaborative inclusive service delivery, and (f) evaluation (Halvorsen & Neary, 2009). The instructional strategies consistently used in each of the six modules were textbook readings and discussions, Internet searches of journal articles, and questions and answer sessions. These instructional strategies were repeated each week throughout the six modules. The instructional strategies were based on the andragogical model of adult learning and education which was developed by Malcolm Knowles (1984). The model is the basis for much of the adult learning theory.

Each module had a title. For example, the title of the Week 1 module was Inclusion Defined. Each module had specific measurable objectives. As an example, the three objectives for the Week 1 module were (1) understand the rationale for and the definition of inclusive education, (2) identify research-based practices for inclusive

education, and (3) know several strategies for initiating and supporting best practices in inclusive education.

Teachers were assigned specific pages to read as homework from the Halvorsen and Neary (2009) six modules. During each Monday training session a summary of the readings on the topic was presented and discussion facilitated on the topic. For the Wednesday session, open-ended question and answer sessions on the topic were conducted. Each module had specific research-based instructional strategies for Monday and Wednesday that were designed to enhance the regular education teachers' personal self-efficacy. Bandura's (1977) social cognitive theory suggests regular education teachers with higher self-efficacy are more willing to try new teaching strategies learned through professional development, even those thought to be difficult to implement. Thus, teachers' self-efficacy may greatly determine if and how schools and districts plan, implement, and support successful professional development training (Bandura, 1986).

Week 1 module indicated that Monday's instructional strategies to achieve the module's objectives were: (a) presentation of a summary of pages 1 to 14, highlighting important information and strategies on the pages for the whole group discussion; (b) in small groups of no more than five teachers per group, teachers will surf the Internet in the school's technology laboratory and locate one or more journal articles related to the module and then discuss the article or articles in the small group; and (c) teachers will record in their personal journal about two pages of reflective notes on how to best apply in inclusive classrooms the information and strategies from today's session (book readings and journal articles). The instructional strategies for Wednesdays were: (a) in small groups teachers will share and discuss the reflective journal entries with each other; (b) one teacher from each group will present a summary of the small group's most important journal entries to the whole group; (c) working in small groups, each group will complete the five "Check for Understanding Questions" from Halvorsen and Neary (2009), page 15. Halvorsen and Neary questions were used as formative assessments. There were formative assessments for each module.

The instructional period was each Monday and Wednesday (3:30 p.m. to 5 p.m.) of the 9-week treatment period. If teachers were absent for one day of the 9-week training session, they were provided a convenient make-up session for the teachers. The final week included a review of the previous weeks. The total exposure time of the teachers to the IPDM treatment was three hours each week times nine weeks or 27 hours. The training closely followed the time line in the Appendix.

Design and Data Analysis

Quantitative research methodology and the single group pretest and posttest research design were the guide for data collection and data analysis for the Research Questions 1 and 2. Qualitative research methodology and the descriptive-interview research design were the guide for data collection and data analysis for the Research Question 3. Quantitative data for the Research Questions 1 and 2 were analyzed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics calculated for the two research questions were pretest and posttest means and standard deviations. The major inferential statistical model for the Research Questions 1 and 2 was the *t*-test for paired samples.

Qualitative data analysis for Research Question 3 followed Creswell’s data analysis technique (Creswell, 2008). The interview data from each of the 10 teachers were copied from the instruments and organized by interview question. The interview data were coded and placed into categories. Themes were identified. A summary of the themes were used to respond to the pertinent research question (Gall, Borg, & Gall, 2007).

Results
Findings for Research Question 1

Research Question 1 asked, “Will the teachers’ knowledge of best practices in inclusive classrooms increase from pretest to posttest as measured by the Inclusion Knowledge Test?” An example of a best practice from Halvorsen and Neary (2009) modules that was reflected in an item on the IKT was: Identify three types of prompts effectively used in inclusive classrooms, and identify the advantages and disadvantages of each prompt. Pretest and posttest scores were collected from the 19 regular education teachers using the Inclusion Knowledge Test (IKT).

Table 1 displays the 19 teachers’ IKT pretest scores, posttest scores, and the amount of change from pretest to posttest. An examination of Table 1 findings shows each of the 19 teachers increased the IKT score from pretest to posttest. The highest increase was 60 points. The lowest increase was 38 points. Four other teachers had increases greater than 50 points.

Table 1

Inclusion Knowledge Test Pretest Score, Posttest Score, and Change Score

| Pretest | Posttest | Change |
|---------|----------|--------|
| 26 | 76 | 50 |
| 30 | 78 | 48 |
| 31 | 74 | 43 |
| 22 | 80 | 58 |
| 19 | 75 | 56 |
| 28 | 76 | 48 |
| 26 | 74 | 48 |
| 12 | 72 | 60 |
| 27 | 78 | 51 |
| 33 | 71 | 38 |
| 32 | 75 | 43 |
| 14 | 72 | 58 |
| 22 | 70 | 48 |
| 24 | 76 | 52 |
| 20 | 69 | 49 |
| 19 | 73 | 54 |
| 15 | 70 | 55 |
| 21 | 70 | 49 |
| 23 | 71 | 48 |

The pretest mean was 23.37 with a standard deviation of 6.08; the posttest mean was 73.68 with a standard deviation of 3.17 (see Table

2). The posttest mean was greater than the pretest mean by 50.31 points. The effect size was calculated. Results yielded a Cohen’s $d = .982$, depicting the strength of the difference between the two means was large with practical significance as well as statistical significance (Gay, Mills, & Airasian, 2009). Regarding the inferential statistics, the difference between the pretest and posttest means was 50.31. The t -test for paired samples calculations showed p value = .000 (see Table 2). Applying the statistical significance decision rule (Creswell, 2008), since the p value (.000) was less than the alpha value (.05), the difference of 50.31 was a statistically significant difference at an alpha level of .05 (Gall et al., 2007).

Table 2

Regular Education Teachers’ Pretest and Posttest IKT Means and Inferential Statistics

| Group | n | prem | posm | t-value | md | df | p-value |
|---------|----|-------|-------|---------|-------|----|---------|
| Teacher | 19 | 23.37 | 73.68 | 38.90 | 50.31 | 18 | .000* |

Note. n = number of teachers; prem = pretest mean; posm = posttest mean; md = mean difference; df = degrees of freedom; p = probability value.
* $p < .05$.

The best practices in the inclusive classrooms were reflected in the Halvorsen and Neary (2009) six modules. The six modules were: (a) inclusion defined, (b) planning for individual student needs in the inclusive classrooms, (c) systematic instruction in inclusion classrooms, (d) peer relationships and support, (e) collaborative inclusive service delivery, and (f) evaluation (Halvorsen & Neary, 2009). The instructional strategies consistently used by this researcher in each of the six modules were textbook readings and discussions, Internet searches of journal articles, and question and answer sessions. These instructional strategies were repeated each week throughout the treatment period for the six modules.

Findings for Research Question 2

Research Question 2 asked the question, “Were teachers’ perceptions on inclusive classrooms changed from preimplementation to postimplementation as measured by the scores on the Teachers’ Attitude Toward Inclusion Survey?” Table 3 displays the 19 teachers’ TATIS pretest scores, posttest scores, and the amount of change from pretest to posttest. An examination of Table 3 findings shows each of the 19 teachers increased their TATIS score from pretest to posttest. The highest increase was 60 points. The lowest increase was 27 points. Ten other teachers had increases greater than 40 points.

The pretest mean was 48.95 with a standard deviation of 9.26; the posttest mean was 90.11 with a standard deviation of 1.76 (see Table 4). The posttest mean was greater than the pretest mean by 41.16 points. The effect size was calculated. Results yielded a Cohen’s $d = .951$, depicting the strength of the difference between the two means was strong with practical significance as well as statistical significance (Gay et al., 2009).

Table 3

TATIS Pretest Score, Posttest Score, and Change Score

| Pretest | Posttest | Change |
|---------|----------|--------|
| 48 | 86 | 38 |
| 51 | 88 | 37 |
| 56 | 89 | 33 |
| 47 | 89 | 42 |
| 49 | 90 | 41 |
| 26 | 89 | 63 |
| 47 | 88 | 41 |
| 62 | 89 | 27 |
| 31 | 91 | 60 |
| 65 | 93 | 28 |
| 46 | 90 | 44 |
| 44 | 91 | 47 |
| 49 | 91 | 42 |
| 59 | 92 | 33 |
| 47 | 91 | 44 |
| 48 | 90 | 42 |
| 57 | 91 | 34 |
| 50 | 91 | 41 |
| 48 | 93 | 45 |

For the inferential statistics, the difference between the pretest and posttest means was 41.16. The *t*-test for paired samples calculations showed *p* value = .000 (see Table 4). Applying the statistical significance decision rule (Creswell, 2008), since the *p* value (.000) was less than the alpha value (.05), the difference of 41.16 appeared to be a statistically significant difference at an alpha level of .05 (Gall et al., 2007).

Table 4

Regular Education Teachers' Pretest and Posttest TATIS Means and Inferential Statistics

| Group | n | prem | posm | <i>t</i> -value | md | <i>df</i> | <i>p</i> -value |
|---------|----|-------|-------|-----------------|-------|-----------|-----------------|
| Teacher | 19 | 48.05 | 90.11 | 19.75 | 41.16 | 18 | .000* |

Note. n = number of teachers; prem = pretest mean; posm = posttest mean; md = mean difference; *df* = degrees of freedom; *p* = probability value.

**p* < .05.

Bandura's (1977) social cognitive theory suggests regular education teachers with higher self-efficacy are more willing to try new teaching strategies learned through professional development, even those thought to be difficult to implement. The cognitive theory suggests that the ability to effectively implement the new teaching strategies can result in higher levels of self-confidence; increased

confidence leads to higher self-efficacy. The confidence teachers gained from their participation in Halvorsen and Neary's (2009) six instructional modules appeared to have enhanced their self-efficacy and attitudes toward teaching inclusive classrooms. The confidence was reflected in the higher postimplementation TATIS scores and large effect size indicated by Cohen's *d* effect size indicator.

Findings for Research Question 3

Research Question 3 asked, "What will be the teachers' perceptions of inclusion practices based on the professional development training?" Postimplementation interview data were collected from 10 randomly selected regular education teachers using the Teachers' IPDM Interview instrument. To answer Research Question 3 with the interview data, overall the teachers' perceptions of inclusion practices based on the professional development training were positive toward working in inclusive classrooms. After the intervention implementation, overall teachers perceived themselves as competent to teach in inclusive classrooms, and they wanted to teach these classes.

There were important themes that emerged from the 10 teachers' interview responses. The most reoccurring theme was 9 of 10 teachers reported their current attitude towards teaching inclusive classes was a positive one. The second most reoccurring theme was 8 of the 10 teachers reported that IPDM instruction increased their knowledge of best practices in inclusive classes for work with all students.

Three additional themes were the teachers perceived (a) they enjoyed the training; (b) it was important to be aware that respect, consensus of leadership role, and supportive monitoring best benefit the inclusive classroom; and (c) it was important to keep in mind that the primary benefit of inclusive education was the fact that students had access to the core curriculum, as specified in IDEA 1997 and 2004, and to the variety of activities and routines.

The qualitative responses in Research Question 3 supported the quantitative responses in the first two research questions. For instance, in Research Question 3, the regular education teachers reported they perceived the professional development training on Halvorsen and Neary (2009) six modules increased their knowledge of best practices for teaching inclusive classrooms. The quantitative findings for Research Question 1 confirmed teachers' knowledge of best practices increased from preimplementation to postimplementation by 50.31 points as measured by the IKT.

The regular education teachers reported qualitatively in Research Question 3 that they enjoyed the professional development. Further, many teachers indicated their attitudes toward teaching inclusive classes became positive as a result of their participation in the training. The quantitative findings in Research Question 2 confirmed these qualitative findings by revealing teachers' scores increased on the TATIS from preimplementation to postimplementation by 41.16 points. The TATIS measured teachers' perceptions of their attitudes toward teaching inclusive classes.

Discussion

Teachers displayed knowledge of best practices from the Halvorsen and Neary (2009) six modules for effectively teaching inclusive classes. The best practices were reflected on the IKT. The best practices included how to collaborate with students and families to identify criti-

cal skill needs. Another best practice was to identify the advantages and disadvantages of each prompt. Teachers had knowledge of ways a collaborative model facilitated students' core curriculum access and meaningful achievement. They could identify best practices related to strategies educators and families could use to facilitate collaborative teamwork, including a process for effective team meetings. In their responses on the IKT, teachers had no problems writing ways to enhance classroom climate and strategies for creating a positive learning system. Teachers were cognizant of the key components of co-teaching and two approaches for implementation of co-teaching in inclusive classrooms (Halvorsen & Neary, 2009).

The enhanced general education teachers' knowledge of best practices and enhanced positive attitudes toward teaching in inclusive classrooms converged with the majority of the literature (e.g., Boutte, 2005; Dean & Behne, 2002; Lindsay, 2003; Mastropieri & Scruggs, 2000; Weisel & Tur-Kaspa, 2002). These studies emphasized that professional development on inclusive classes can increase student achievement and result in a more positive teacher attitude towards teaching inclusive classes. As an example, Mastropieri and Scruggs (2000) noted that the attitudes of teachers toward inclusionary programs are among the most important variables affecting these programs' successes.

Dean and Behne (2002) reported that of all the factors related to the success of inclusion, teacher attitude, teacher training, knowledge of best practices, and understanding of collaboration were arguably the most important. They went on to argue that while general education teachers may support the concept of inclusion, most of them did not feel that they could successfully integrate these students into their own classrooms without adequate training. In fact it was reported that some general education teachers did not share with special education teachers the belief that students with special needs have a basic right to receive their education in general education classrooms (Boutte, 2005).

Research, conducted by Weisel and Tur-Kaspa (2002), emphasized that the success of inclusion depends considerably on the teachers' and administrators' positive attitudes and knowledge of how to effectively work with students in inclusive classes. These researchers defined attitudes as an individual's tendency to positively or negatively respond toward an object, person, institution, or any distinct aspect in one's life. Lindsay (2003) reported that full inclusion and student success involved positive attitudes by teachers and administrators. Further, Lindsay (2003) suggested that general education teachers should incorporate workshops and training sessions that addressed the needs of special needs students and general education teachers' attitudes within the regular educational environment.

Conclusions and Recommendations for Practice

The findings from this study clearly showed the IPDM increased the knowledge and improved the attitudes of general education teachers in inclusive classrooms who participated in the study. Establishing successful inclusive classrooms in middle schools requires a clear vision, continued communication and support throughout the period of change, and the continued commitment of all involved in the change process. Special and general educators must be willing to

share, learn, create, fail, and reinvent. This process requires trust and a willingness to take risks as shown by the 19 teachers in IPDM. New initiatives must be constantly evaluated as to their success and impact. Everyone involved in the new initiatives must be informed and receive adequate support. Responsiveness of the individual institutions is critical during the change process.

Effective changes do not come without a cost. Consistent monitoring and support require open communication, follow-up, and responsive action. Given special and general educators' already full plates, it is critical to clearly define their responsibilities and to commit the necessary time and resources for continued professional development. In a time of competing resources, increasing accountability, and ever-changing priorities, each educator must continue to be an advocate for positive change. Therefore, consistency and honesty among the special and general educators, and an absence of personal and professional agendas are critical.

Based on the findings of this study and observations in the IPDM project, conclusions and ideas for future professional development efforts focusing on integrating strategies into the middle school's inclusive settings were formulated. First, when teachers have a shared understanding of and goals for their students (personal knowledge), teaming is an effective model for promoting collaboration and planning among general and special education teachers. Time must be allocated for teachers to share personal knowledge about their students and teaching and to receive guidance from experts on topics. Second, struggling students, including students with learning disabilities, require individualized instruction and much practice. Teachers need strategies that fit the instructional needs of their students. As observed in the study, teachers will focus on using the best strategies if they view them as helpful for their students' needs even if these strategies are not perceived as a perfect fit with their curriculum and high-stakes assessment. Third, student progress monitoring should be included as part of strategy training to ensure that students are benefiting from the instruction. This is important because there will be a small group of students with disabilities severe enough to warrant more intensive, adapted instruction (e.g., smaller groupings, more instructional time, modified materials). Finally, professional development activities require a great deal of time. Time is needed for in-class modeling, preparing for instruction, and teacher planning. Teachers also need time to become comfortable with the professional development strategies and to implement them with their students.

The inclusion of students with disabilities is a matter of law. Although some may view it as an administrative headache, it is also an opportunity--an opportunity to provide a higher level of learning to those students while also increasing socialization with students without disabilities. To accomplish inclusion, collaboration among all stakeholders is essential. Administrative support is paramount, and time must be provided for true cooperative planning and discussion. Education is a team effort, and nowhere is this more evident than in the successful implementation of an inclusion program.

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Appendix

Time Line of the IPDM Modules, Objectives for the Module, Instructional Strategies, and Formative Assessment Questions

Week 1

- a. Week 1 module of instruction is titled *Inclusion Defined*;
- b. The three objectives for Week 1 module are (1) understand the rationale for and the definition of inclusive education, (2) identify research-based practices for inclusive education, and (3) know several strategies for initiating and supporting best practices in inclusive education.
- c. The required readings to cover the three objectives are from Halvorsen and Neary (2009), pages 1 to 17.
- d. Monday's instructional strategies to achieve the three objectives are (1) presentation of a summary of pages 1 to 14, highlighting important information and strategies on the pages for the whole group discussion; (2) in small groups of no more than five teachers per group, teachers will surf the Internet in the school's technology laboratory and locate one or more journal articles related to the module and then discuss the article or articles in the small group; and (3) teachers will record in their personal journal about two pages of reflective notes on how to best apply in inclusive classrooms the information and strategies from today's session (book readings and journal articles).
- e. Wednesday's instructional strategies and formative assessment questions are (1) in small groups teachers will share and discuss the reflective journal entries with each other; (2) one teacher from each group will present a summary of the small group's most important journal entries to the whole group; and (3) working in small groups, each group will complete the five "Check for Understanding Questions" from Halvorsen and Neary (2009), page 15. An example of a question is, What research-based steps can be taken to assist regular education students in their interactions with the special education students in an inclusive classroom lab? and (4) teachers will discuss the five open-ended questions in small groups and submit the responses to all questions at the end of today's session.

Weeks 2 and 3

- a. Weeks 2 and 3 module of instruction is titled *Planning for Individual Student Needs in the Inclusive Classrooms*.
- b. The six objectives for Weeks 2 and 3 module are (1) describe an individual student planning process; (2) describe a process for collaborating with students and families to identify critical skill needs; (3) describe a number of ways to adapt the curriculum; (4) describe how to assess the current level of performance in general education activities and routines; (5) develop a support plan for students based on functional assessments, and (6) describe an effective team planning process for meeting individual student needs.
- c. The required readings to cover the six objectives are from Halvorsen and Neary (2009), pages 51 to 85.
- d. Monday's instructional strategies to achieve each of the six objectives are (1) presentation of a summary of pages 51 to 85, highlighting important information and strategies on the pages for the whole group discussion; (2) in small groups of no more than five teachers per group, teachers will surf the Internet in the school's technology laboratory and locate one or more journal articles related to the module and then discuss the article or articles in the small group; and (3) teachers will record in their personal journal about two pages of reflective notes on how to best apply in inclusive classrooms the information and strategies from today's session (book readings and journal articles).
- e. Wednesday's instructional strategies and formative assessment questions are (1) in small groups teachers will share and discuss the reflective journal entries with each other; (2) one teacher from each group will present a summary of the small group's most important journal entries to the whole groups; (3) working in small groups, each group will complete the five "Check for Understanding Questions" from Halvorsen and Neary (2009), page 85. An example of a question is, What are some strategies a teacher can employ to facilitate prioritizing his time and efforts to develop meaning programs for the students? and (4) teachers will discuss the five open-ended questions in small groups and submit the responses to all questions at the end of the session.

Week 4

- a. Week 4 module of instruction is titled *Systematic Instruction in Inclusion Classrooms*.
- b. The four objectives for Week 4 module are (1) describe stages of learning and how they impact instructional strategy, (2) state at least four reasons for providing systematic instruction in inclusive classrooms, (3) describe how teaching might look from a learner's perspective, and (4) state the rationale for data collection.
- c. The required readings to cover the four objectives are from Halvorsen and Neary (2009), pages 119 to 140.
- d. Monday's instructional strategies to achieve each four of the objectives are (1) presentation of a summary of pages 119 to 140, highlighting important information and strategies on the pages for the whole group discussion; (2) in small groups of no more than five teachers per group, teachers will surf the Internet in the school's technology laboratory and locate one or more journal articles related to the module and then discuss the article or articles in the small group; and (3) teachers will record in their personal journal about two pages of reflective notes on how to best apply in inclusive classrooms the information and strategies from today's session (book readings and journal articles).
- e. Wednesday's instructional strategies and formative assessment questions are (1) in small groups teachers will share and discuss the reflective journal entries with each other; (2) one teacher from each group will present a summary of the small group's most important journal entries to the whole group; (3) working in small groups, each group will complete the six "Check for Understanding Questions" from Halvorsen and Neary (2009), page 140. An example of a question is, How can teaching strategies be individualized for each student? and (4) teachers discuss the six open-ended questions in small groups and submit the responses to all questions at the end of today's session.

Weeks 5 and 6

- a. Weeks 5 and 6 module of instruction is titled *Peer Relationships and Support*.
- b. The four objectives for Weeks 5 and 6 module are (1) describe ways to enhance classroom climate and strategies in order to create a positive learning environment; (2) describe how classroom meetings can be used for proactive planning and problem solving; (3) identify and describe a variety of peer support and collaboration strategies and systems; and (4) describe informal as well as structured strategies for peer support at different age/grade levels, and distinguish situations where each is appropriate.

- c. The required readings to cover the four objectives are from Halvorsen and Neary (2009), pages 157 to 177.
- d. Monday's instructional strategies to achieve the objectives are (1) presentation of a summary of pages 157 to 177, highlighting important information and strategies on the pages for the whole group discussion; (2) in small groups of no more than five teachers per group, teachers will surf the Internet in the school's technology laboratory and locate one or more journal articles related to the module and then discuss the article or articles in the small group; and (3) teachers will record in their personal journal about two pages of reflective notes on how to best apply the information and strategies from today's session (book readings and journal articles) in inclusive classrooms.
- e. Wednesday's instructional strategies and formative assessment questions are (1) in small groups teachers will share and discuss the reflective journal entries with each other; (2) one teacher from each group will present a summary of the small group's most important journal entries to the whole group; (3) working in small groups, each group will complete the five "Check for Understanding Questions" from Halvorsen and Neary (2009), page 177. An example of a question is, What would be the most difficult aspect of implementing school climate and/or peer collaboration strategies reviewed in this module of instruction? Why? What would be three possible approaches to resolve this difficulty? and (4) teachers discuss the five open-ended questions in small groups and submit the responses to all questions at the end of the session.

Week 7

- a. Week 7 module of instruction is titled *Collaborative Inclusive Service Delivery System*.
- b. The four objectives for Week 7 module are (1) identify and evaluate several inclusive service delivery approaches, (2) discuss ways a collaborative model facilitates students' core curriculum access and meaningful achievement, (3) define key characteristics of collaborative consultation, and (4) identify key components of co-teaching and a variety of approaches for implementation.
- c. The required readings to cover the objectives are from Halvorsen and Neary (2009), pages 179 to 202.
- d. Monday's instructional strategies to achieve the objectives are (1) presentation of a summary of pages 179 to 202, highlighting important information and strategies on the pages for the whole group discussion; (2) in small groups of no more than five teachers per group, teachers will surf the Internet in the school's technology laboratory and locate one or more journal articles related to the module and then discuss the article or articles in the small group; and (3) teachers will record in their personal journal about two pages of reflective notes on how to best apply in inclusive classrooms the information and strategies from today's session (book readings and journal articles).
- e. Wednesday's instructional strategies and formative assessment questions are (1) in small groups teachers will share and discuss the reflective journal entries with each other; (2) one teacher from each group will present a summary of the small group's most important journal entries to the whole group; (3) working in small groups, each group will complete the six "Check for Understanding Questions" from Halvorsen and Neary (2009), page 201. An example of a question is, Imagine you are embarking on a co-teaching relationship with a colleague. Which approach to co-teaching would you be more comfortable with? What would be some of your first steps? Make a hypothetical action plan to address the areas/issues the two of you would need to address and resolve; and (4) teachers discuss the six open-ended questions in small groups and submit the responses to all questions at the end of today's session.

Week 8

- a. Week 8 module of instruction is titled *Evaluation*.
- b. The three objectives for Week 8 module are (1) suggest ways to adapt exhibitions and portfolio expectations for a student with specific disabilities; (2) provide the rationale for community-referenced standards-based curriculum and performance-based assessment approaches and describe types of progress measures for students with and without disabilities, including alternate assessment strategies; and (3) distinguish between school accountability and student-level or outcome data and describe how these intersect and relate to each other in the evaluation process.
- c. The required readings to cover the four objectives are from Halvorsen and Neary (2009), pages 203 to 224.
- d. Monday's instructional strategies to achieve the objectives are (1) presentation of a summary of pages 203 to 224, highlighting important information and strategies on the pages for the whole group discussion; (2) in small groups of no more than five teachers per group, teachers will surf the Internet in the school's technology laboratory and locate one or more journal articles related to the module and then discuss the article or articles in the small group; and (3) teachers will record in their personal journal about two pages of reflective notes on how to best apply the information and strategies from today's session (book readings and journal articles) in inclusive classrooms.
- e. Wednesday's instructional strategies and formative assessment questions are (1) in small groups teachers will share and discuss the reflective journal entries with each other; (2) one teacher from each group will present a summary of the small group's most important journal entries to the whole group; (3) working in small groups, each group will complete the six "Check for Understanding Questions" from Halvorsen and Neary (2009), page 24. An example of a question is, Examine and critiques the alternate statewide assessment requirements and instruments used in your state and (4) teachers discuss the six open-ended questions in small groups and submit the responses to all questions at the end of today's session.

Week 9

- a. Review
- b. The objective is to review Weeks 1 to 8 and the six modules of instruction.
- c. The required readings is all of the previous readings from Halvorsen and Neary (2009).
- d. Monday's instructional strategy is the presentation of a summary of all modules and the facilitation of whole group discussion.
- e. Wednesday's instructional strategies are (a) a continuation of the summary of all modules, (b) small group review and presentation on all Check for Understanding questions and important journal reflections, and (c) debriefings and thanks to all participants for their support of the IPDM.
- f. Teachers will be provided a copy of the posttest data collection schedule. All post-implementation data collection and one-on-one interviews will occur in the school's media center.

Halvorsen, A., & Neary, T. (2009). *Building inclusive schools: Tools and strategies for success*. Needham Heights, MA: Allyn & Bacon.

Identifying Aftercare Supports for Out-of-Home Transitions: A Descriptive Analysis of Youth Perceptions and Preparedness

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Abstract: Youth served in residential care often demonstrate significant educational and behavioral gains during treatment; however, struggles evidenced during the reunification and reintegration process underscore the importance of continued aftercare services and supports. While these needs have been widely noted in the literature, little is known about youth perceptions regarding the importance of aftercare or preferences regarding specific supports. The purpose of this study was to assess the views of youth discharging from a residential program on perceptions of transition planning and aftercare, preparedness for the reintegration, and perceptions regarding specific services and supports. One-hundred and thirty-two youth served in a large residential care facility were asked to complete a Youth Aftercare Survey prior to departure to determine youth perceptions. Overall, results revealed high levels of youth optimism about their preparedness for the upcoming transition and identified supports in education, relationships, physical health, independent living, and family as most important to the reintegration process. Although promising findings were revealed regarding youth perceptions of the importance of continued supports across broad domains, youth were less concerned about mental health supports; a factor critical to long-term success. Implications, limitations, and future research are discussed.

Residential care is one of the most restrictive out-of-home placements and annually serves approximately 200,000 youths (Butler & McPherson, 2007; Child Welfare League of America [CWLA], 2007; Whittaker, 2000). Although children enter these settings with a number of behavioral, educational, and mental health challenges (CWLA, 2007; Duppong Hurley et al., 2009; Warner & Pottick, 2003; Trout et al., 2008), upon departure, many leave demonstrating significant improvements (James, 2011; Trout et al., 2009; Trout et al., 2010). Unfortunately, for many of these youth, outcomes data suggest that the reintegration period following departure presents new challenges that may impact the youths' ability to maintain the gains made while in care and successfully adapt to social, family, and educational expectations (Cuthbert et al., 2011; Fensch, Cameron, & Preyde, 2009; Preyde et al., 2011). These challenges may lead to additional placements, delinquent behavior, and school dropout or failure. Findings from previous research evaluating youth outcomes following placements in care demonstrate patterns of continued behavioral, educational, and family challenges. For example, Weis and Toolis (2009) conducted a follow-up study of youths placed in residential care and found that after discharge, a high percentage had been arrested (41.9%) or struggled with drug abuse (12.1%) and alcohol problems (21%). Educationally, findings from previous studies demonstrate that nearly three quarters of youth formerly

served in care perform below grade level, and when compared to same age peers, fail more academic courses, pass minimum competency tests at lower rates, are twice as likely to drop out of school, and less frequently pursue postsecondary opportunities (Connor, Doerfler, Toscano, Volungis, & Steingard, 2004; Cook, 1994; Fensch, et al., 2009; Valdes, Williamson, & Wagner, 1990; Vincent, Kramer, Shriver, & Spies, 1995; Zetlin, Weinberg, & Kimm, 2004). Finally, studies evaluating the long-term family risks of youth served in care reveal that as many as 72% have experienced some type of family problem following reintegration such as domestic violence, abuse, neglect, and poor parenting (Administration for Children and Families, 2005; Warner & Pottick, 2003).

Given these findings, one may anticipate that effective aftercare services for youth and families have been identified to help youth to maintain gains and prevent long-term failure. However, although it is widely recognized that planning for and providing supportive mechanisms in areas such as health, education, relationships, family, independent living, and community involvement may be critical for short- and long-term success (Asarnow, Aoki, & Elson, 1996; Farmer, Wagner, Burns, & Richards, 2003; Hodges, Guterman, Blythe, & Bronson, 1989; Leichtman & Leichtman, 2002; Nickerson, Colby, Brooks, Rickert, & Salamone, 2007), research on best practice for aftercare supports and services is limited (Daniel, Goldston, Harris, Kelley, & Palmes,

2004; Whittaker, 2000) and what is known is typically focused on the discharge planning process. For example, Nickerson et al. (2007) examined the transition perspectives of 20 youths, 21 parents, and 21 staff prior to each youth's departure from residential care. Results revealed that on average, youths' transition plans were developed approximately six months after entering treatment. While the majority (88 %) of youths were aware of the environment to which they would transition following departure, both parents and youth reported that they would also prefer preparation and goal setting in the area of education prior to transition home (Nickerson et al., 2007). In a similar study, Brady and Caraway (2002) investigated the perceptions of discharge planning for 41 children and youths served in two residential facilities as part of a larger study evaluating the experiences of children in care. Findings from their interviews revealed that while the majority of children felt "okay" about, or were "happy" or "very happy" with the current discharge plan (58.5 %), just over 41 % "hated" or "worried about" the plan in place. In regards to placement decisions, of the 41 children, 31.7 % knew exactly where they would be living after discharge and an equal percentage (31.7 %) had no idea where they would live following discharge. The remaining youth (36.6 %) either knew of several possibilities, thought that they might know, or thought that the placement decision might change. Finally, children reported that engagement in the placement decision was low, with just over one quarter (26.8 %) reporting a perception of involvement in the final decision.

Although these previous studies provide a better understanding of transition preparation for youth in residential care, a gap exists in understanding additional components of the transition process including preferences for aftercare services and supports. Evaluating youth perceptions on their preparedness for the upcoming transition, their views on aftercare, and preferences regarding services or supports to aide in the reintegration process is important for service development, buy-in and participation, and in the development of engagement strategies. This study sought to extend the literature and begin to address the research gaps on transitions and aftercare. Specifically, youth were surveyed at discharge from a residential treatment center to evaluate their (a) views on transition planning, (b) perceptions of aftercare support, (c) preparedness for reintegration, and (d) the importance of specific supports and services.

Methods

Setting

The study was conducted at a large residential treatment center in the Midwest. The residential treatment center includes approximately 70 community-based family style homes (Treatment Family Homes) in which youths 12 to 18 years of age live with a married couple (Family Teachers), one assistant (Assistant Family Teacher), and six to eight same gender peers. The program aims to work with schools, families, and community resources to teach youth the necessary skills to help them achieve success in school, work, and with their families.

Participants

Participants included the first 132 assenting youths departing care between April and June 2010. Youths were predominantly male ($n = 81$, 61.4 %) with a mean age of 16.95 years ($SD = 1.52$; range = 11 to

19). Just over 40 % were Caucasian ($n = 59$, 44.7 %); 33.3 % ($n = 44$) were African American; 12.9 % ($n = 17$) were Hispanic; 8.3 % ($n = 11$) were American Indian or Alaska Native; 1.5 % ($n = 2$) were Native Hawaiian or Pacific Islander; and 12.1 % ($n = 16$) identified two or more ethnicities. A small percentage ($n = 17$, 12.9 %) were receiving special education services; over 20 % ($n = 27$) were taking at least one psychotropic medication; and 12.1 % ($n = 16$) were taking two or more medications. Over half (53 %) were returning to the home of a biological parent with the others returning to the home of a relative (15.9 %), independent living (16.6 %), foster or adoptive parent (6.8 %), or military or another treatment facility (7.7 %). Nearly 45 % ($n = 59$) reported that they believed they would be receiving at least one type of support or service, with some identifying more than one, following their stay in residential care. These services included a case manager (49.1 %), individual or family therapy (37.2 %), probation officer (20.3 %), tracker (11.9 %), drug or alcohol treatment (10.1 %), in/out-patient mental health (3.4 %), or other (13.6 %).

Measures

The Youth Aftercare Survey. The Youth Aftercare Survey measures youth perceptions regarding preferences for aftercare services and supports during the transition period. The survey was developed using a series of steps including a thorough review of the literature, peer reviews by professionals in the research community, pilot tests with graduate and undergraduate students, and a pilot test with youth who had previously been discharged from residential care. The survey has four sections that address different components of aftercare. Section 1 includes eight items that describe the demographic characteristics of the respondent (e.g., grade, medication status, ethnicity, gender). Section 2 includes 13 items designed to evaluate current supports in place for the transition period (e.g., has a plan been established for your transition home?) and perceptions regarding aftercare (e.g., how likely would you be to participate if an aftercare program were available?). Section 3 includes seven items designed to determine perceptions regarding areas of most importance for the transition (e.g., support in education, relationships, independent living) and feelings of youth preparedness for transition across targeted areas rated on a 3-point Likert-type scale (1 = not at all prepared to 3 = very prepared). Section 4 includes 51 items rated on a 4-point Likert-type scale (1 = very important to 4 = not important at all) evaluating perceptions regarding the importance of services and supports across seven domains. These 51 items can also be combined to generate subscales representing each domain, which includes: (a) community involvement (7 items; e.g., accessing community services/agencies, finding volunteer opportunities; Cronbach's Alpha = .89); (b) education (14 items; e.g., enrolling in school, developing school organizational skills; Cronbach's Alpha = .93); (c) family (7 items; e.g., developing family rules for discipline, developing positive family relationships; Cronbach's Alpha = .87); (d) independent living (10 items; e.g., developing money management skills, accessing housing; Cronbach's Alpha = .83); (e) mental health (4 items; e.g., managing medication for behavior or mental health, accessing support groups; Cronbach's Alpha = .80); (f) physical health (3 items; e.g., accessing health care, developing a healthy lifestyle; Cronbach's Alpha = .62); and (g) relationships (6 items; e.g., developing peer relationships,

accessing information on dating; Cronbach's Alpha = .82). Items and instructions were written at or below a 5.0 reading level and pilot administrations of the survey determined completion time to be approximately 10 minutes.

Procedures

Study procedures were approved by the residential program's and university's Institutional Review Boards (IRB). Two methods were used to identify and recruit participants. First, a list of youths who had planned departures was provided to project staff at least six weeks prior to youths' departure dates. These youths were approached by project staff to determine interest in participation. Interested youths were provided packets containing a cover letter, consent form, and survey and instructed to read the cover letter which provided directions for survey completion. The cover letter also contained contact information in the event participants had questions or concerns regarding survey completion. Second, for unplanned departures (e.g., runaways, youth pulled by the courts or families prior to program completion), the packets containing the cover letter, consent form, and survey were mailed to the discharging home listed on file. The same packets were mailed out every two weeks until three attempts were made to obtain completed surveys. Of the 138 youths approached, 95.6 % (N = 132) agreed to participate and individually completed the survey. Two of the participants declined to complete the survey and four were not returned. All participants were mailed a small gift card following survey completion.

Data Analysis

Five steps were used to identify youth preferences and views on aftercare and supports. First, IBM SPSS Statistical Software was used to enter and clean data. Second, Cronbach's Alpha scores (Santos, 1999) were calculated to determine the internal reliability of the six domain subscales found in Section 4 (see measures section). Third, importance and preparedness variables were dichotomized for ease of interpretation. Fourth, descriptive statistics were calculated for all participants. Finally, the 51 items from Section 4 were rank ordered by level of importance ranging from the most to least important support.

Results
Transition Planning

When asked if a plan had been established for the transition home, the majority of youth (78 %) indicated that they had a transition plan in place. Overall there was some disagreement as to when the transition plan should be developed with 25 % of the youth believing that the plan should be developed at entry to or at the beginning of treatment, 29 % reporting that a plan should be developed part way through treatment, and nearly half (46 %) reporting that the plan should be developed closer to departure (i.e., less than a month, one to three months).

Table 1 presents youth perceptions regarding the perceived helpfulness, degree of involvement, and youth and parent preparedness for the transition. All of the youth believed that the transition plan would be "somewhat" or "very" helpful to the transition and just over three quarters (75.2 %) reported feeling "very" involved with the process. Similarly, youth ratings regarding their perceptions of parent and

youth preparedness for the transition across settings revealed that the majority reported feeling that they and their parents/guardians were "very" prepared for the transition home, but were less confident about their preparedness to transition to school.

Table 1
Inclusion Knowledge Test Pretest Score, Posttest Score, and Change Score

| | Not at all (%) | Somewhat (%) | Very (%) |
|---|-------------------|-----------------|-------------|
| Perceived helpfulness of transition plan ^a | 0.0 | 20.8 | 79.2 |
| Degree of involvement in development of the plan ^a | 2.9 | 21.9 | 75.2 |
| Perceived preparedness to transition home | 0.8 | 30.5 | 68.7 |
| Perceived preparedness to transition to school ^b | 3.6 | 46.4 | 50.0 |
| Perceived preparedness of parent/guardian for transition | 3.8 | 25.3 | 70.9 |

Note. ^aPercentages are reflective of youths who completed the item. ^bItem was not applicable for 20 youths who graduated high school while in care.

Perceptions of Aftercare

Participants were asked about their perceptions regarding the importance of access to an aftercare program during the transition home. Although the majority of youth believed that aftercare support would be "somewhat" (42.6 %) or "very" (29.5 %) important to their transition, over one quarter (27.9 %) indicated access to aftercare was "not at all important." Similarly, 41.9 % and 31.1 % of the participants reported that they would be "somewhat" or very likely to participate in aftercare supports should services be available, respectively, while 31.8 % reported being "not at all likely" to participate. In regards to the amount of time youth would be willing to commit to aftercare services, the majority (66.7 %) reported 1-2 hours per week, and the remaining reported 3-4 (18.7 %), 5-6 (8.9 %), 7-8 (2.4 %), or 9 or more hours (3.3 %). Finally, participants' perceptions regarding the desired length of aftercare services varied; however, responses were closely distributed among one month (26.4 %), three month (21.6 %), and six month (22.4 %) durations. Nearly 6 % felt that aftercare programs should last at least nine months and 24 % indicated 12 months or longer.

Importance and Preparedness Across Domains

Table 2 presents youth ratings regarding perceptions of importance and preparedness across each of the seven domains. When asked

regarding importance, 100% of the youth felt that support in the area of “Education” was important. Nearly all youth (97.7%) also revealed support in the area of “Relationships” as important. In contrast, youth indicated support in the areas of “Community Involvement” and “Mental Health” as less important. Participants were also asked to reveal how prepared they felt for the transition in each domain. The highest percentage of youth (97.6%) felt most prepared in the area of “Relationships” followed closely by “Education” (95.1%). Participants indicated feeling less prepared in the domains of “Community Involvement” (25%) and “Mental Health” (18.9%).

Table 2

Importance and Preparedness Across Domains

| Domain | Importance | | |
|-----------------------|----------------|----------------|---------------|
| | More Important | Less Important | More Prepared |
| Community Involvement | 69.8% | 30.2% | 75.0% |
| Education | 100.0% | 0.0% | 95.1% |
| Family | 93.8% | 6.2% | 92.7% |
| Independent Living | 93.7% | 6.3% | 85.1% |
| Mental Health | 75.9% | 24.1% | 81.3% |
| Physical Health | 94.7% | 5.3% | 91.1% |
| Relationships | 97.7% | 2.3% | 97.6% |

Importance Across Domains and Specific Supports

Participants were asked to identify how important they felt supports were during reintegration across the seven domains: Community Involvement, Education, Family, Independent living, Physical Health, Mental Health, and Relationships. Participants indicated that supports in the “Relationship” domain were most important ($M = 3.35$, $SD = .59$); followed by “Physical Health” ($M = 3.34$, $SD = .60$); “Education” ($M = 3.29$, $SD = .60$); “Independent Living” ($M = 3.17$, $SD = .56$); “Family” ($M = 3.09$, $SD = .67$); and “Community Involvement” ($M = 2.89$, $SD = .74$). Youth rated support in the area of “Mental Health” as the least important ($M = 2.67$, $SD = .89$).

To identify youth perceptions about the most and least important supports within the domains, the top and bottom 10 ranked items were aggregated. Table 3 displays the top and bottom supports as well as the percentage of participants that endorsed each item as “very” important. The highest rated items included “developing money management skills,” “developing positive family, relationships,” and “developing a healthy lifestyle.” The lowest rated items included “assistance with enrolling in the military,” “joining parent support groups,” and “accessing mental health services.” Slightly over three fourths (78.8%) of participants endorsed developing money management skills as “very” important, while only 9.1% endorsed assistance with enrolling in the military to be “very” important. Overall, the top preferred supports or services fell within the “Independent Living,” “Education,” “Physical Health,” and “Relationships” domains. All of the rankings for the items which comprise the “Mental Health”

domain were in the bottom 10, and the remaining lowest ranked items were distributed between supports within the “Community Involvement” and “Independent Living.”

Table 3

Top and Bottom Ten Rated Supports and Services

| Item | Youth Endorsing % | Overall M(SD) |
|---|-------------------|---------------|
| Developing money management skills | 78.8% | 3.72(.61) |
| Developing positive family relationships | 75.8% | 3.68(.65) |
| Developing a healthy lifestyle | 68.2% | 3.61(.66) |
| Obtaining college scholarship/financial aid | 68.2% | 3.61(.70) |
| Developing relationships with parents/caregivers | 70.4% | 3.58(.76) |
| Enrolling in school | 68.9% | 3.55(.77) |
| Obtaining insurance | 68.9% | 3.55(.81) |
| Developing sibling relationships | 64.4% | 3.51(.78) |
| Developing career planning skills | 62.9% | 3.50(.76) |
| Developing study skills | 58.3% | 3.48(.70) |
| Developing homework routines | 59.8% | 3.45(.80) |
| Managing medication for behavior or mental health | 39.4% | 2.80(1.20) |
| Accessing transportation services | 24.2% | 2.76(.97) |
| Finding volunteer opportunities | 23.5% | 2.74(.97) |
| Accessing information on dating | 20.9% | 2.74(.90) |
| Finding support groups | 26.5% | 2.72(1.07) |
| Finding mentorship programs | 23.5% | 2.63(1.06) |
| Finding drug/alcohol treatment | 29.5% | 2.58(1.18) |
| Accessing mental health services | 21.2% | 2.56(1.02) |
| Joining parent support groups | 15.2% | 2.45(.95) |
| Enrolling in the military | 9.1% | 1.92(.98) |

Note. Means are based on scale ranging from (1 = Not Important at all to 4 = Very Important). Percentages are based on participants that marked items as Very Important.

Discussion

This study extends the transition and aftercare literature by examining youth perceptions regarding transition planning, preparedness for reintegration, and aftercare services and supports following a stay in residential care. Similar to previous research (e.g., Brady & Caraway, 2002), the majority of youth indicated that transition

plans are established prior to the reintegration period. However, in contrast to previous studies where only 26.8% of participants reported being involved (Brady & Caraway, 2002), the majority of youth in this study reported being very involved in this process and felt that plans would be helpful for the transition period. These results are promising given prior research that suggests significant benefits of starting the transition preparation process early (Leichtman & Leichtman, 2002; McCurdy & McIntyre, 2004) and the importance of both youth and caregiver involvement in the process for positive youth outcomes (Cafferty & Leichtman, 2001; Nickerson, Salamone, Brooks, & Colby, 2004).

Although promising findings were found in regards to youth involvement in transition plan preparation, youth varied in regards to their responses regarding the importance and desired length of time in aftercare services. In regards to aftercare importance, while youth reported a range of perceptions, less than one third reported that they perceived aftercare to be “very important” to their transition success. Follow-up studies are needed to better understand this finding; however, it is possible that youth may have less buy-in to continued services because they feel the difficulties experienced prior to care were addressed in treatment, and now they no longer see the need for additional supports. Similarly, youth reported a range of perceptions regarding the length of time for aftercare support reintegration. Specifically, while youth recognize a need for some support, the majority reported that support would be needed for only a short time period (i.e., 6 months or less) following their reintegration.

Similar to the findings by Nickerson et al., (2007) in which youth reported additional preparation and goal setting in the area of education as important prior to discharge, all youth from this study reported that support in “Education” was important to transition success and indicated varying perceptions on levels of preparedness for their transition back to their home school setting. Moreover, several specific supports from the domain of “Education” such as assistance with enrolling in school, developing study skills, developing homework routines, and obtaining college scholarships or financial aid were also identified as the top 10 most preferred supports. These findings suggest that youth believe continued support in education is important and that several key skills will be critical to their transition support.

Finally, one very notable finding from this study was the lack of importance placed on access to supports and services in the area of mental health. Although mental health was an area in which youth reported feeling least prepared, all specific supports related to the domain of “Mental Health” fell within the bottom 10 rated preferred supports. Given the outcomes data that have consistently demonstrated that many youth do not maintain gains in areas of behavior and social competence following reintegration (Weis & Toolis, 2009), these findings reveal a clear disconnect from perceived needs and preferences for continued supports.

Implications

Currently, there is limited information on best practices in aftercare supports and services for youth departing residential treatment and reintegrating into the home and community settings. The present findings are a first step toward identifying perceptions of need across critical life domains and may reveal strategies to enhance transition planning and youth preparedness for reintegration.

First, given the diverse perceptions, preferences, and aftercare needs identified by the youth, developing comprehensive transitions plans for all youth that incorporate goals and ways to access supports across broad domains may better prepare youth for the reintegration period as well as communicate the importance of aftercare services. Strategies should also be included to address youth buy-in and may include the involvement of the youth from the initial stage of development through implementation, continued efforts to help youth to identify the services and supports they will need following departure, specific training on the available community resources, and engagement of youth at all stages of program planning for agencies developing aftercare supports. For example, screenings to identify the most common youth needs, or interviews or focus groups to determine youth preferences regarding how and when services are provided may enhance initial buy-in and retention in services. Additionally, follow-up studies with the youth to evaluate the utility and effectiveness of interventions may aid in the development of programs that are perceived to be relevant and palatable to the youth and feasible following departure.

Second, youth revealed mixed feelings regarding their preparedness for reintegration into the school setting and reported the domain of “Education” to be an area they feel would be important to receive additional supports postdischarge. Despite making educational gains in treatment (Frensch et al., 2009; Lorandos, 1990; McMackin, Tansi, & Hartwell, 2005; Trout et al., 2010), youth enter schools with several academic barriers including functioning below grade level, difficulty adjusting to the structure of new classrooms, and low levels of task engagement (Crozier & Barth, 2005; Frensch et al., 2009; Landrum, Tankersley, & Kauffman, 2003). Collaboration with parents and schools throughout transition planning regarding strategies which have been successful while in care (e.g., homework interventions, academic supports, participation in extracurricular activities) and ensuring the transitioning school is prepared for the youth following departure may help to better prepare the youth, family, and school for the transition process.

Third, youth reported mental health to be a domain they feel as less important for accessing supports following reintegration. Given previous research identifying mental health as an area in which youth struggle postdischarge (Weis & Toolis, 2009) additional information may need to be provided to youth while in care to educate them about their specific health care needs. Similarly, providing resources to parents and youth regarding mental health needs such as peer or parent mentor models, support groups, information on specific mental health services, or services for medication management may help the family navigate the mental health needs of the youth as the youth reintegrates into the community and begins the path to independence.

Limitations and Future Research

Several limitations of this study should be acknowledged and addressed in future research. First, transition preparation differs across treatment facilities; therefore the results from this study may not generalize to youth served in other residential settings. Replication of this study in other settings is needed to determine youth perceptions are similar across agencies. Similarly, in addition to expanding this research to other settings, replications are needed to examine specific preferences of subgroups of youth (e.g., younger participants, males,

and females) and to determine perceptions of other key respondents (e.g., parents/caregivers, service providers, educators) influential in the transition process. Second, while this survey was comprehensive, there may be additional services or supports (i.e., respite services, in-home family support) which were not included and could add to domain areas such as physical and mental health in which there were the fewest items. Third, the purpose of this survey was not intended to be the development of a standardized measure; however items were grouped into domain subscales in order for comparison. As mentioned previously, some of the domain subscales (i.e., physical health and mental health) consisted of few items and had lower Cronbach Alpha scores. Therefore, future studies with this survey could look at adding additional items to each subscale and surveying more participants to establish stronger psychometric characteristics.

Conclusion

These findings extend the knowledge base on youth transition planning and perceptions of aftercare services and supports. Although there is still much to be studied regarding best practice, these results are promising in that they reveal that the majority of youth believe in the importance of transition planning and aftercare, and would be likely to participate if services were available. Youth levels of preparedness across target areas and preferences also suggest that while some domains are seen by youth as more important to transitions, other areas that are perceived as less important may need to be more directly addressed while in care. Through continued efforts of predeparture education and comprehensive planning and support during the critical transition period, youth may be better prepared to navigate the transition, which may in turn, influence both short- and long-term youth emotional, behavioral, and educational success.

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Substance Use Prevention Among At-Risk Rural Youth: Piloting the Social Ecological One Life Program

Ronald D. Williams, Jr., Jeremy T. Barnes, Thomas Holman, and Barry P. Hunt

Abstract: Substance use among youth is a significant health concern in the rural United States, particularly among at-risk students. While evidence-based programs are available, literature suggests that an underdeveloped rural health prevention workforce often limits the adoption of such programs. Additionally, population-size restrictions of national mentoring programs can hinder their adoption in rural areas. This study sought to determine the effectiveness of a school-based group-matched mentoring program on at-risk students in two rural Missouri school districts using an intervention-control group design. At-risk students ($n = 65$) identified by school officials participated in a school-based mentoring program (One Life) designed to reduce substance use and impact social ecological risk factors. Compared to controls ($n = 29$), participants indicated reductions in 30-day use of tobacco ($p = .037$), alcohol ($p = .001$), and inhalants ($p < .001$). Additional benefits included increased interest in higher education and improved skills in peer development ($p < .05$). Social ecological mentoring can be a viable option for school-based drug prevention programs targeting at-risk rural youth.

The use of licit and illicit drugs among youth is a significant health concern for rural health educators. Multiple studies have indicated the risk for use and abuse of alcohol and other drugs is higher in rural areas across the U.S. when compared to nonrural or urban areas (Dunn et al., 2008; Eberhardt, Ingram, & Makuc, 2001; Van Gundy, 2006; Williams, Barnes, & Leoni, 2011; Wright & Sathe, 2005). In an effort to improve public health research and knowledge on this issue, the National Rural Health Research Center identified substance abuse as priority health issue in 2001. Moreover, substance abuse was ranked in the top 10 of rural health priorities in the Rural Healthy People 2010 Project (Gamm, Hutchison, Bellamy, & Dabney, 2002). Because substance use is correlated to multiple risky behaviors throughout the lifespan (Spooner, 1995; Timmermans, Van Lier, & Koot, 2007; Tolou-Shams, Brown, Gordon, & Fernandez, 2007), there is a tremendous need for drug prevention and early intervention programs in rural areas.

While dozens of evidence-based drug prevention and intervention programs are available, there are consistent and widely acknowledged implementation barriers that may limit program effectiveness or preclude program implementation (Amodeo, et al., 2011; Cawood, 2010; Forman, Olin, Hoagwood, Crowe, & Saka, 2009; Gottfredson & Gottfredson, 2002; Hallfors & Godette, 2002; Skager, 2007). One such programmatic strategy that has gained favor over the last decade is mentoring (Bellamy, Springer, Sale, & Espiritu, 2004; Kolar & McBride,

2011; Rhodes & Dubois, 2008; Vannest et al., 2008); yet, initiating and implementing nationally recognized mentoring programs in rural areas is difficult due to the population-size restrictions for new program sites (Williams et al., 2010). Despite the challenge of adopting mentoring programs in rural areas, health educators continue to seek such programs because potential benefits include improved academic retention, enhanced mental and physical health, and reductions in risky behaviors (Beier, Rosenfeld, Spitalny, Zansky, & Bontempo, 2000; DuBois, Holloway, Valentine, & Cooper, 2002; DuBois & Silverthorn, 2005; Eby, Allen, Evans, Ng, & DuBois, 2008; Rhodes, Reddy, & Grossman, 2005).

Though evidence exists of the positive impact of mentoring programs, there is much inconsistency in program outcomes (Bellamy et al., 2004; DuBois et al., 2002). Bellamy and colleagues (2004) reported that the Center for Substance Abuse Prevention's evaluation of the 15-site mentoring initiative Project Youth Connect showed no significant differences in drug use and other drug-related factors among mentored youth and nonmentored youth. Inconsistent evaluative outcomes for mentoring programs are often related to the lack of fidelity in program implementation (Bellamy et al., 2004). Identified implementation barriers for mentoring programs include insufficient intensity, disorganized program structure, and mentor retention (Bellamy et al., 2004; DuBois et al., 2002; National Center for Mental Health Promotion and Youth Violence Prevention, n.d.).

Social Ecology in Mentoring Programs

Despite the barriers and lack of consistent results, mentoring programs continue to be funded and adopted, and now serve three million youth across the United States (DuBois, Portillo, Rhodes, Silverthorn, & Valentine, 2011). Literature review suggests that the social ecology model has been used extensively to explore influences on risky behaviors among youth (Ennett et al., 2008; Kumpfer & Turner, 1991; Mason et al., 2010; Riner & Saywell, 2002; Stephens, 2001; Williams, 2012; Williams et al., 2006; Williams et al., 2008); yet, it has not been used as a program design framework for mentoring programs. Social ecology of health suggests that behavior is influenced by the interaction of personal, social, and environmental factors including intrapersonal factors, interpersonal factors, institutional or organizational factors, community factors, and public policy (McLeroy, Bibeau, Steckler, & Glanz, 1988). Social ecology has also been used to guide needs assessments related to drug use among rural youth (Williams et al., 2011); therefore, the utility of this behavioral model in program design should be examined. The purpose of this study was to pilot test the impact of a school-based, social ecological group mentoring program on at-risk students in two rural Missouri school districts using a pre-post intervention-comparison group design. Of specific interest was the One Life program's impact on drug consumption and intrapersonal social ecological influences of drug use as identified by Williams et al. (2011).

Methods

Participants

This study used a pre-post intervention-comparison group design to implement a social ecological mentoring program in two rural, southeastern Missouri communities for one academic year. The program was implemented in two school districts, while data were collected from a comparison group in a third district for a total sample of $n = 94$. The intervention group ($n = 65$) consisted of rural youth in grades 8 - 10 with a mean age of 14.7 years, while the control group ($n = 29$) consisted of rural youth in grades 8 - 10 with a mean age of 15.6 years. Table 1 indicates demographic breakdown of all participants. Youth in the intervention group were identified by school officials to be considered at-risk due to past discipline problems, poor academic performance, and/or unstable home life.

Table 1

Demographics of Youth Participants in the One Life Pilot Program

| | Intervention n (%) | Control n (%) |
|------------------|-----------------------|------------------|
| Sex | | |
| Female | 35 (53.8) | 15 (51.7) |
| Male | 30 (46.2) | 14 (48.3) |
| Race | | |
| African American | 42 (64.6) | 17 (58.6) |
| Caucasian | 23 (35.4) | 12 (41.4) |
| Grade | | |
| 8 | 18 (27.7) | 6 (20.7) |
| 9 | 30 (46.1) | 10 (34.5) |
| 10 | 17 (26.2) | 13 (44.8) |

Program Development

While many mentoring and substance abuse prevention programs exist, the standard of practice is to implement targeted evidence-based strategies to improve the potential for positive behavioral impact. An advanced search of the U.S. Substance Abuse and Mental Health Services Administration's (U.S. SAMHSA) National Registry of Evidence-based Prevention Programs and Practices yielded only one existing rural, school-based substance abuse prevention program targeting adolescents aged 13 - 17 which includes a mentoring component (U.S. SAMHSA, 2013). This program, titled Protecting You/Protecting Me, focuses on alcohol prevention and vehicle safety using high school students as educators for an elementary school population (Bell, Kelley-Baker, Rider, & Ringwalt, 2005; Bohman et al., 2004; Padget, Bell, Shamblen, & Ringwalt, 2005). While Protecting You/Protecting Me has shown a positive impact on youth, the program did not meet the comprehensive substance use prevention needs for the population included in this study (Leoni, Williams, Barnes, 2008; Williams et al., 2011); therefore, a social ecological program was developed based on the recommendations of Williams et al. (2011).

Assessments of Missouri youth have indicated high rates of drug use particularly among youth in the Southeastern region of the state (Evans, Sale, Breejen, & Dupue, 2010; Evans et al., 2006; Williams et al., 2011). A comprehensive social and epidemiological assessment of drug use among rural Missouri youth in the targeted area previously identified both macro- and micro-level influences on substance use which included perceived lack of value in education, myopic life views, lack of positive adult role models, and community acceptance of risky behaviors (Leoni et al., 2008; Williams et al., 2011). The mentoring program tested in this study was designed using the proposed model of social ecological influences on rural youth drug use focusing specifically on intrapersonal influences (Leoni et al., 2008; Williams et al., 2011). To create and implement the program, researchers collaborated with regional institutions including the youth judiciary system, two local school districts, and a regional support center, which routinely provides technical assistance for substance abuse prevention.

The program consisted of three interrelated components designed to engage students in both the school and community, while providing mentorship through a trained cadre of local university students. The components included a lighted schoolhouse, life-coaching, and career planning. These strategies were implemented over a four-month period during the academic school year.

Lighted schoolhouse. In an effort to reduce risk factors for at-risk youth, the lighted schoolhouse model has been successfully implemented in U.S. schools in the past (Hexter, Kaufman, Chandler, Sikes-Gilbert, & Aleman, n.d.; Stephens, Tullis, Sanchez, & Gonzalez, 1991). Lighted schoolhouse programs aim to provide a healthy, positive environment for youth by hosting various events on the school campus during after-school hours. Each of the two school districts participating in this pilot program assigned a faculty or staff member to assist in lighted schoolhouse events, which took place biweekly alternating between each school district. Events included recreation, leisure, and physical activity.

Life-coaching. At-risk youth were matched with trained mentors who met with program participants biweekly during school hours

in the fall and spring semesters. Group mentoring sessions lasted 45-60 minutes each and consisted of lifestyle enhancement coaching through a developmental assets curriculum, as well as tutoring for participant's academic work. All mentors ($n = 12$) were trained through official college-credit coursework at a local university in the principles and practices of mentorship and completed a school-district background check prior to approval for acceptance in this program. Mentors were assigned one group of at-risk youth per school with each mentoring group consisting of four to six participants.

My Future career planning. Prior studies have suggested that at-risk rural youth in Missouri do not view college as a viable option for career development (Leoni et al., 2008; Williams et al., 2011). Among the reasons for this lack of interest in higher education are unwillingness to leave the area, perceived lack of professional jobs in the region, and failure to value a college education (Williams et al., 2011). This program component consisted of career mentoring through the exploration in higher education, vocational training, and technical trades available through a regional university and vocational school. Researchers collaborated with a team of local professionals who agreed to deliver presentations to program participants on the benefits of educational training and the career opportunities in their specific fields. Professionals were from fields requiring college degrees such as education, nursing, and agriculture, as well as vocational training such as welding, appliance repair, and paramedics.

Data Collection

Baseline and posttest surveys were administered to all participants. The drug abstinence domain of the U.S. Substance Abuse and Mental Health Services Administration's National Outcome Measures (MO Department of Mental Health, n.d.) was used to measure age-at-first use and 30-day use for tobacco, alcohol, inhalants, marijuana, and other illegal drugs. Age-at-first use was measured only at baseline as this variable could not be impacted at posttest. Thirty-day use was dichotomized into use and no use. Other survey items were added to measure intrapersonal social ecological influences on rural drug use as identified by Williams and colleagues (2011). Intrapersonal measures included scales in higher education interest (3 items; alpha reliability = 0.71), favorable attitudes toward use (5; 0.78), and social skills (5; 0.63).

Results

At baseline, age-at-first use was measured for tobacco (mean = 10.7 years), alcohol (9.9), inhalants (12.4), marijuana (11.0), and other illegal drugs (no reported use among participants), with no significant differences between intervention and control groups for any substance. Additionally, there were no significant differences when examined by sex, race, or grade; however, males were slightly more likely to indicate earlier onset of use for all four substance categories.

Thirty-Day Use

At baseline, intervention and control group chi-square analyses indicated no statistically significant differences in 30-day use for any of the four substances. Posttests revealed significant ($p < .05$)

reductions in 30-day use of tobacco, alcohol, and inhalant use among the intervention group, but no significant change in marijuana use. Among the control group, a significant increase in 30-day alcohol was observed at posttest ($p = .001$), but no differences were reported for tobacco, inhalant, and marijuana. Comparisons of posttest 30-day use revealed a significant difference between intervention and control groups for tobacco, alcohol, and inhalant use (Table 2).

Intrapersonal Measures

Participants were asked about their intentions to pursue higher education after graduating high school. Specific questions asked about intentions to pursue a two-year/associate's degree, four-year/bachelor's degree, or technical/vocational training. Participants in the intervention group reported statistically significant increases in two-year and four-year degrees ($p < .05$), while no significant difference was seen for interest in vocational training. Controls showed no significant improvement in interest in any of the three higher education levels, with interest in vocational training significantly decreasing from baseline to posttest ($p = .010$). Posttest comparisons between intervention and control groups indicate that participation in the One Life program has a significant impact on participants' interest in all levels of higher education (Table 3).

The Center for Substance Abuse Prevention's Favorable Attitudes Towards Use Scale (Currie & Perry, 2003) was also used to examine intrapersonal influences among the participants. The four-item scale contained questions about how wrong the participants thought it was for someone their own age to consume alcohol, tobacco, marijuana, or illegal drugs. One additional item was added to collect attitudinal data on inhalant use. Within the intervention group, a significant difference was seen regarding alcohol attitudes at posttest. Participants were more likely to report a belief that using alcohol was "wrong" or "very wrong" after completing the One Life program. No posttest differences were observed for attitudes towards tobacco, inhalants, marijuana, or other illegal drugs. Additionally, posttest comparisons of intervention and control groups revealed significant differences in alcohol attitudes, but no other substance (Table 4).

Five measures of social skills were assessed at baseline and posttest. Social skill subscales included decisional impact (one item), friendship development (two items), and family communication (two items). Statistically significant changes were observed only in the area of friendship development as intervention participants were significantly more likely to find it easier to make friends ($p = .047$) and knew how to make friends of the opposite sex ($p = .000$) at posttest. Additionally, intervention participants indicated increased skills in friendship development compared to the comparison group ($p < .05$) at posttest. Of particular note is the improvement in friendship development with the opposite sex. Intervention participants improved significantly from baseline to posttest (69.2% - 86.2% reporting comfort with making friend of the opposite sex), while comparison group participants indicated a statistically significant decrease (65.5% - 55.2%). While not significant, intervention participants did report improvements or no change in the other sub-scales of decisional impact and family communication (Table 5).

Table 2

Comparison of 30-Day Consumption Rates Between Intervention and Control Groups (n; % Reporting Use)

| | Intervention (n = 65) | | Control (n = 29) | | Posttest Comparisons of Intervention & Control Groups (<i>p</i>) |
|------------------|-----------------------|-----------|------------------|-----------|--|
| | Baseline | Posttest | Baseline | Posttest | |
| 30-Day Alcohol | 24; 36.9 | *19; 29.2 | 11; 37.9 | *13; 44.8 | .001 |
| 30-Day Tobacco | 20; 30.8 | *13; 20.0 | 9; 31.0 | 8; 27.6 | .037 |
| 30-Day Inhalants | 17; 26.2 | *6; 9.2 | 8; 27.6 | 8; 27.6 | .000 |
| 30-Day Marijuana | 18; 27.7 | 17; 26.2 | 8; 27.6 | 7; 24.1 | .174 |

**p* < .05 from baseline to posttest.

Table 3

Comparison of Higher Education Interest Between Intervention and Control Groups (n; % Reporting Intention to Pursue Higher Education)

| | Intervention (n = 65) | | Control (n = 29) | | Posttest Comparisons of Intervention & Control Groups (<i>p</i>) |
|----------------------|-----------------------|-----------|------------------|-----------|--|
| | Baseline | Posttest | Baseline | Posttest | |
| 2-Yr/Associate's | 39; 60.0 | *59; 90.8 | 16; 55.2 | 17; 58.6 | .000 |
| 4-Yr/Bachelor's | 64; 83.1 | *59; 90.8 | 24; 82.8 | 24; 82.8 | .009 |
| Technical/Vocational | 40; 61.5 | 42; 64.6 | 15; 51.7 | *12; 41.4 | .000 |

**p* < .05 from baseline to posttest.

Table 4

Comparison of Attitudes Towards Drug Use Between Intervention and Control Groups (n; % Reporting Use of Substance Was Wrong/Very Wrong)

| | Intervention (n = 65) | | Control (n = 29) | | Posttest Comparisons of Intervention & Control Groups (<i>p</i>) |
|---------------------|-----------------------|-----------|------------------|----------|--|
| | Baseline | Posttest | Baseline | Posttest | |
| Alcohol | 22; 33.8 | *25; 38.5 | 9; 31.0 | 7; 24.1 | .031 |
| Tobacco | 18; 27.7 | 18; 27.7 | 8; 27.6 | 10; 34.5 | .087 |
| Inhalants | 19; 29.2 | 21; 32.3 | 12; 41.4 | 10; 34.5 | .214 |
| Marijuana | 40; 61.5 | 43; 66.1 | 17; 58.6 | 18; 62.1 | .099 |
| Other Illegal Drugs | 58; 89.2 | 57; 87.7 | 27; 93.1 | 26; 89.7 | .356 |

**p* < .05 from baseline to posttest.

Table 5

Comparison of Social Skills Between Intervention and Control Groups (n; %)

| | Intervention (n = 65) | | Control (n = 29) | | Posttest Comparisons of Intervention & Control Groups (<i>p</i>) |
|---|-----------------------|-----------|------------------|-----------|--|
| | Baseline | Posttest | Baseline | Posttest | |
| Think about impact of my decisions | 36; 55.4 | 38; 58.5 | 16; 55.2 | 16; 55.2 | .178 |
| Know how to make friends with opposite sex | 45; 69.2 | *56; 86.2 | 19; 65.5 | *16; 55.2 | .000 |
| Find it easy to make new friends | 48; 73.8 | *53; 81.5 | 21; 72.4 | 22; 75.8 | .047 |
| Listen to family members | 36; 55.4 | 36; 55.4 | 18; 62.1 | 17; 58.6 | .294 |
| Frequently talk to adult about actions/thoughts | 43; 66.2 | 45; 69.2 | 20; 69.0 | 19; 65.5 | .401 |

**p* < .05 from baseline to posttest.

Discussion

Rural youth have significant substance abuse problems that need to be addressed by both members of the scientific community and practitioners. Results of the One Life program indicate that a short-term, group-matched mentoring program can have a significant impact on substance use rates of at-risk rural youth. Although some of the changes seen as a result of the One Life program may seem modest, their significance is much larger if viewed from a broader public health perspective. From a practical standpoint these changes may be regarded as the beginning of a change in social norms, which may affect gradual change in a community. Each member of a relatively small and close-knit rural community not involved in substance abuse has the potential to influence many others. Social norms do not change overnight but take many years to change and every individual who understands the consequences of their actions and has been exposed to programs such as One Life is better protected from substance abuse and other risky behaviors. In addition, substance abuse is correlated with poor academic performance and numerous other social problems so successful prevention efforts have far-reaching impact. The components of the One Life Program could potentially be used for longer periods of time and demonstrate more significant impact.

A huge advantage of a program such as One Life is that it was implemented in a “real world” practical setting using relatively modest resources that many communities could leverage. Small rural communities are often the areas with the fewest resources for substance abuse treatment so prevention is of critical importance (No Place to Hide, 2000). Early intervention efforts may help alleviate demand on many other scarce rural resources such as law enforcement and social services.

Finding mentors was not a problem in this study. Many of the mentors were from small rural communities and their personal experiences growing up in such areas gave them unique insights into the challenges facing this rural youth population and may have contributed to the success of the One Life program. Mentoring is a skill that many young professionals can use in their careers particularly if they are entering fields such as social work, recreation, counseling, or substance abuse prevention. Universities and other educational settings may be willing to partner with outside groups to both train mentors and give those mentors experiential activities related to their field of study.

The utility of the social ecological framework aided in the development and implementation of the One Life program. The holistic concept of social ecology indicates that behavioral influences are multifaceted and successful change requires intervention at multiple levels (Atzaba-Poria, Pike, & Deater-Deckard, 2004; Evans, Williams, & Perko, 2008; McLeroy, Bibeau, Steckler, & Glanz, 1988). This program focused on the two intrapersonal-level constructs—myopic view of life and limited value in education—as identified by Williams et al. (2011). While this program targeted these two intrapersonal constructs, the implementation strategies also impacted interpersonal influences through life-coaching which gave at-risk youth the opportunity to interact with trained mentors in a positive, social environment confirming previous research findings (DuBois & Silverthorn, 2005; Eby et al., 2008; Rhodes, Reddy, & Grossman, 2005).

Additionally, the school-community collaboration and utilization of the lighted schoolhouse model provided a level of positive institutional influence, as well as a recognizable facility within the community. The lighted schoolhouse model is based on the notion that developing school-community partnerships and allowing use of

the school facility beyond normal school hours can help to improve home-school relations thereby impacting education of youth (Graue & Sherfinski, 2011). Because the One Life program offered fun and healthy recreational activities through the lighted schoolhouse environment, it provided an opportunity for the at-risk youth participants to improve school bonding which has been shown to be an essential component in youth prevention (Maddox & Prinz, 2003).

A limitation of this study was the self-selection of subjects and the fact that it was a relatively homogenous population. Interventions similar to the ones described in this study should be planned, implemented, and evaluated in other communities including different age groups, socioeconomic groups, and in different settings such as urban and suburban. Youth in all communities are subjected to a wide range of influences and each community has its own set of circumstances. This being the case, it is imperative that a sound assessment be conducted prior to program planning. Finally, the importance of environmental protection strategies cannot be overstated. These strategies need to be tailored to the unique cultural situations found in rural communities and many factors may need to be addressed. Successful strategies will be more likely if supported by all segments of the community including interests such as the business community, health care, law enforcement, education, civic groups, faith-based organizations, and local politicians.

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Willful Ignorance? The Dropout Crisis and United States Public Education Policy

Allen L. McMurrey

Abstract: *This paper takes a critical conceptual look at education policy and practice from the passage of the Elementary and Secondary Education Act in 1965 to the present. The paper examines the roots of current United States educational policies, and shows that, in some cases, well-intentioned efforts have had a negative impact on vulnerable populations such as minorities, immigrants, and the economically disadvantaged. It begins with a review of the discourse and literature on the history of these policies and their effect on at-risk students, and concludes with a look at research and a brief look at current practices that could enhance education and improve student outcomes. The paper describes the role Texas has played in the crafting of recent education policies, and uses the state as an example of the effect of current education policies.*

Never before has educational attainment been such an important prerequisite for participation in our nation's economy, yet each year many of our nation's most needy students miss out on educational opportunities. These students are pushed out of their schools, or they simply give up fighting a system that seems stacked against them. This paper explores four decades of data regarding U.S. education policy. When looking at school completion going back to 1972, it becomes clear that poor minority students are disproportionately overrepresented in dropout statistics and negative school outcomes (Hauser, Simmons, & Pager, 2000). Over half of African American and Latino students fail to earn a high school diploma. In their research into Latino educational issues Gándara and Contreras (2009) argued that:

Never before have we been faced with a population group on the verge of becoming the majority in significant portions of the country that is also the lowest performing academically. And never before has the economic structure been less forgiving to the undereducated. (p. 18)

Former Texas Agricultural Commissioner Jim Hightower is known to have said, "when we all do better, we all do better" (Progressive Populist, 1997). Were politicians, education policymakers, and school personnel to take a pragmatic view of education's capacity to level the playing field, it is quite possible that they could see things through Jim Hightower's lens and envision how public education can help us all do better. One of the keys to us all doing better is to address the fact that far too many poor and minority children fail to graduate from high school due to frustration or

because they are pushed out of schools. If a truly equitable society is what we are seeking through our children's education, perhaps now is a good time to start looking at a well-rounded education for all children as a basic civil right.

Education as a Civil Right

In certain academic circles, there is talk of elevating education as a basic civil right. If education is a civil right, then how can we better guarantee the rights of all our nation's children? When you consider that a significant portion of poor and minority students fail to graduate, now might be good time to commit to creating equality through educational opportunity.

After being chosen to be the Secretary of Education in the Obama administration, Arne Duncan made several bold statements regarding his views on education and the role that the U.S. government plays in making education policies reality. At an event commemorating the 46th anniversary of the signing of the Civil Rights Act, he began by stating that, "education is the most pressing issue facing America," (U.S. Education Secretary Duncan commemorates 46th anniversary of the Civil Rights Act, 2010, para. 1) and insisted, "preparing young people for success in life is not just a moral obligation of society" (para. 3). Secretary Duncan asserted, "education is also the civil rights issue of our generation" (para. 4). He concluded his comments by stating that education is "the only sure path out of poverty and the only way to achieve a more equal and just society" (para. 8).

In 2010, President Barack Obama echoed Secretary Duncan in a speech given to the Governors' Association, in which he outlined his position that education is a civil right. To make a case for this claim, the President argued that:

If you look at the history of public education in this country, it's supposed to be the great equalizer. The dividing line in our country, between the haves and have-nots, is often around educational opportunity. You can come from real poverty, but if you have a great early childhood program, a great K-12 education and you have access to go to college, you'll do great. Yet, in far too many places in this country, educational opportunity is tied to race, neighborhood, and zip code. There's something wrong with that picture. (Gordy, 2010, para. 3)

How then do we match our current educational policy goals, like those alluded to by President Obama and Secretary Duncan, with long-held progressive ideals such as 19th century education reformer Horace Mann's view of education as "the great equalizer"? To provide an answer to this and other questions, I chose to take a critical conceptual look at education policy and practice from the passage of the Elementary and Secondary Education Act in 1965 to the present. In examining the roots of current United States educational policies, I will show that, in some cases, well-intentioned efforts have had a negative impact on vulnerable populations such as minorities, immigrants, and the economically disadvantaged. The paper will also focus on how these policies have affected Texas and the role Texas has played in the crafting of recent education policies.

The Elementary and Secondary Education Act of 1965

In 1965, President Lyndon Johnson signed into law the Elementary and Secondary Education Act (ESEA), at which time he declared: "No law I have signed, or will ever sign, means more to the future of America" (Johnson, 1965, para. 20). President Johnson, a former educator who taught disadvantaged, minority students, sought to provide equal educational opportunities and close persistent achievement and educational gaps between more affluent students and schools and economically disadvantaged students and the schools that serve them. Encouraged by successful passage of the Civil Rights Act of 1964, the Johnson Administration sought and passed ESEA by linking it to other progressive legislation collectively called the "Great Society" (Johnson, 1965, para 10). ESEA was, at that time, the single largest investment in education ever made by the United States government. This act and subsequent reauthorizations, discussed later in this paper, have continued to serve America's public school students for more than four decades (Standerfer, 2006). Said Kantor (1991) regarding Johnson-era education reform:

ESEA policy makers were informed by widely shared assumptions about the nature of poverty and about the relationship of the state to the economy. These assumptions made educational reform central to Great Society policies designed to eliminate poverty and equalize economic opportunity. Yet because the Great Society was reluctant to challenge existing institutional arrangements and was constrained by the makeup of the Democratic party coalition and the federal government's capacity to control local education practices, it was unable to make the education of disadvantaged students a top priority of local school districts, even

though it successfully institutionalized the federal commitment to improving education for economically disadvantaged children. (Kantor, 1991, p. 47)

Focusing our attention on the educational needs of economically disadvantaged students was, and still is, a good idea. ESEA encouraged a legion of reformers and social scientists to become engaged in education reform, but eventually diluted the educational process and practices. We lost focus of the simple goal of educational legislation, which is, or should be, to educate children in the best way possible. After 18 years of highly focused programs and reforms one thing became evident: what began with ESEA—an effort to provide better educational opportunities for minorities and the poor—was not working. As will be shown in this paper, subsequent administrations and policymakers would attempt to address what they viewed as deficiencies in our public education system and the inherent perils these shortcomings pose to our nation.

There were reasons to be optimistic about these new reforms, but the overall difficulties involved with public education were persistent enough to continue to warrant caution (Gamoran & Long, 2006). Nevertheless, it still seemed that too little effort was being consistently applied to a problem that was getting worse every year. The focus on increasing accountability by raising standards was about to take a new turn, which would create new systems of accountability based on high stakes test scores. The basis for this bold new move in education began in Texas during the *incredible* educational progress made there under Governor George W. Bush. As president, Governor Bush would attempt an overhaul of the nation's public school system similar in scope to President Johnson's ESEA initiatives.

The Reauthorization of the Elementary and Secondary Education Act

In 2002, President George W. Bush signed into law the No Child Left Behind (NCLB) Act (2001). This sweeping reauthorization of the 1965 Elementary and Secondary Education Act set out to raise reading and mathematics scores dramatically, and close the stubborn achievement gaps that had long been a source of complaints and dissatisfaction with the American public school system. According to Cross (2004), "the fact that the president made this bill the first order of business in a new administration is especially striking" (p.126). The primary goal of the new law was for each child to be proficient in reading and mathematics by the year 2014 (United States Department of Education, 2013, para. 3).

NCLB, based on the Texas accountability movement's emphasis on publicly embarrassing schools and districts that do not meet mandated requirements, uses a metric known as "Adequate Yearly Progress" (AYP) to grade schools, districts, cities, and even states. AYP, as defined by *Education Week*, is an accountability measure used to, "determine whether all students, as well as individual subgroups of students, are making progress toward meeting state academic content standards" (Adequate Yearly Progress, 2011, para. 2). Many states, eager to comply with NCLB and meet AYP targets, began to implement policies that would lead to a sizable part of each state's educational budget being allocated to materials, training, and personnel in support of testing (Azzam, Perkins-Gough, & Thiers, 2006).

The components of AYP are, on the surface at least, rather simple. They consist of test performance (in Texas' case the TAKS test) and test participation. The performance component is broken down by age, sex, socioeconomic status, cognitive ability (Special Education), and English language acquisition status (LEP, ELL, and similar). Scores are sorted as proficient (met AYP targets) or nonproficient (missed AYP targets). Both schools and districts can have the "met" or "missed" labels affixed to them. Scores are made public locally, statewide, and nationally. A school district or school that can consistently meet AYP standards can expect glowing reports and, in some cases, financial rewards. The consequences for not meeting AYP expectations can be devastating economically for both districts and schools.

NCLB mandated that each state meet AYP requirements in each demographic, or face increasingly punitive actions that can result in a school being reconstituted (removal of staff, programs, and/or administration), having its staff replaced, or being taken over and run by the state. The initial consequences of failing to meet AYP standards include students being allowed to choose a different campus, or if they chose to stay at their original school, to attend mandatory, no cost, before- or after-school tutoring. If a school continues to fail to meet AYP minimums, further punitive measures are the second step, and include the school having to provide and fund supplemental education services. The third and ultimate measure can be undertaken if a school fails to meet AYP requirements more than three times. It includes, but is not limited to, the school being taken over by the state and reconstituted or closed outright. Districts can appeal their AYP status and even seek the protection of safe harbor provisions for schools with populations that are comprised mainly of at-risk categories of students.

Initial Outcomes of the No Child Left Behind Act

In researching this extremely broad legislation (the law itself is more than 1,000 pages), two distinct observations can be made. First, NCLB has done much to shed light on school populations that have for many years, even decades, been overlooked or considered beyond help by the school districts they attend. The Texas Education Agency's Academic Excellence Indicator System (AEIS), a product of NCLB, proves itself an unequalled data resource. The AEIS records state, region, district, and school data, including testing information, such as how students in each grade perform on each content area, and each school's and district's scores are broken down by grades and sub-populations. Other AEIS information available to the public includes student and teacher demographics, retention rates, dropout rates, and a host of other relevant data.

A second observation is that unless something more is done than using the data collected to shame failing schools, the problems of consistently underperforming schools and underserved populations is going to get much worse. Current legislation addressing the shortcomings and detrimental effects of NCLB is working its way through both houses of the United States Congress and has the support of President Obama and Secretary Duncan (United States Department of Education, 2012). This legislation will grant eligible states and districts flexibility in meeting NCLB requirements and AYP targets. In some cases it will grant these school districts and states waivers from

NCLB requirements. As these are relatively new measures, there is no data to support whether or not these changes will have any effect.

Honig (2006) insisted that the challenge facing broad policy execution, like NCLB, is "not simply what is implementable and works, but what is implementable and what works for whom, where, when and why" (p. 2). What has become painfully evident is that NCLB has a disproportionate and negative affect on districts and schools that serve economically disadvantaged minority students. As Honig (2006) argued, education policy researchers and practitioners interested in improving the implementation of education policies should help build knowledge about what works and how to replicate success (p. 14). In other words, what we should be looking at is what works, what doesn't work, and building upon that knowledge to improve policy and teaching which should ultimately create better outcomes for all students.

In reading through the research, it is easy to conclude that NCLB is not the educational panacea it was intended to be. Educational historian Dianne Ravitch put it this way:

Was the NCLB toolkit working? Were there sanctions prescribed by the law improving achievement? The reports coming out of the states indicated that state education departments were drowning in the new bureaucratic requirements, procedures, and routines, and that none of the prescribed remedies was making a difference. (Ravitch, 2010, p. 99)

After reviewing how NCLB has affected schools in Texas, I am not inclined to report that it has not had an overly positive effect in regards to school improvement for schools that serve large numbers of at-risk students, nor has it had a positive effect on educational outcomes for at-risk students. Demonstrating this is the expectation that 50 % of Texas school districts and 66 % of Texas school campuses will not meet AYP requirements for 2011 (Texas Association of School Boards, 2011, p. 2).

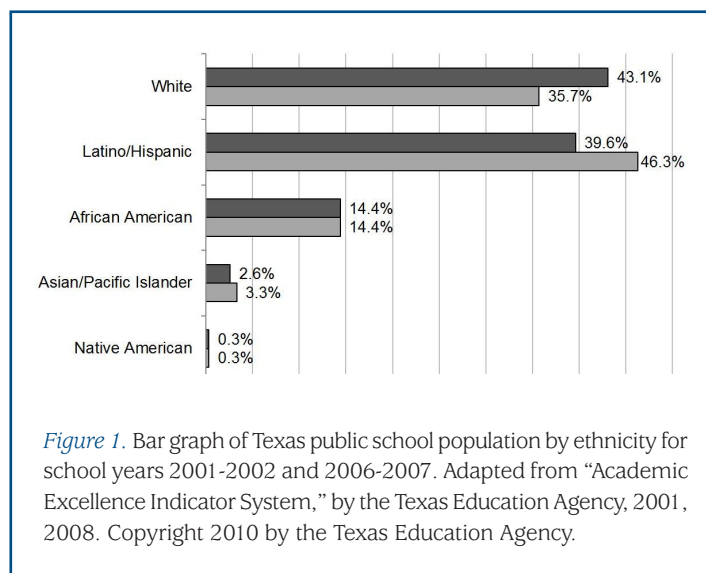
Unfortunately, NCLB and accompanying accountability systems (like those in Texas), ostensibly designed to provide programs and support that focus on needed improvements, seem to unfairly target and punish the school districts that have been identified as having the most problems. The reasoning seems to be that beating up and picking on poor urban schools (like those in Houston and other urban areas), and making spectacles of them, will result in positive changes. The idea that publicly humiliating schools, administrators, teachers, staff, and students would somehow motivate them to step up does not make much sense. Yet, that is exactly what has happened in far too many districts and schools, and the consequences have been that, in many cases, no improvements have been made or things have gotten worse.

At this point one may ask: If not this, then what? Therein lies the problem. With the persistence of poverty in our cities and rural areas, and shrinking educational and economic opportunities nationwide, a greater emphasis is being placed on the government and state educational agencies to do *something*. Economically disadvantaged kids are still overrepresented in poor academic performance in schools, and they continue to be the largest group of students dropping out. In order to get a better understanding of the effects that educational

legislation like ESEA and NCLB have had on schools and students we must look at Texas, a state where economically disadvantaged, at-risk students are overrepresented in student demographics reported by the state.

The Texas Public School System

Texas has grown dramatically since the turn of the century. In 2000, Texas was home to almost four million K-12 students (TEA, 2001, Section II, p. 1). Data from TEA for 2006-2007 showed that Texas served more than 4.5 million students, a rather significant increase, particularly when student demographics are taken into account (TEA, 2008, Section II, p. 1). As it grew, Texas' population also changed, as is illustrated in Figure 1. In just seven years, the total number of students increased by 585,150 (TEA, 2008). Most interesting about this growth is the changes seen in certain ethnic groups, specifically Latinos and Whites. The Latino population grew by 539,900 or 6.7 % from 2000 to 2007, while the White population in Texas public schools shrank by 90,289 or 7.4 % (TEA, 2008).



In the midst of these demographic changes, structural changes were happening that also impacted schools. As the state population grew, added pressure was being put on school districts, especially those that served high minority and economically disadvantaged student populations. The growing populations and increasing school accountability standards led to the adoption of what became known as "Robin Hood Laws." This name describes the state's practice of "recapture," or taking tax monies from wealthier districts and redistributing the funds to impoverished districts. As districts lower on the socioeconomic ladder relied more and more on these funds, the state legislature responded by doing all that they could to protect higher income districts and keep property taxes low (Smith, 2011).

High-Stakes Testing and Texas

Texas became a model for No Child Left Behind via the "Texas Miracle in Education" (Haney, 2001). This "miracle," which occurred from 1994 through 2000 during the administration of Texas Governor George W. Bush, was the result of a new system of accountability that was to serve as the framework for the reauthorization of ESEA known as "No Child Left Behind."

However, to really understand this miracle, one must first take a broad look at education in Texas and the state's use of mandated tests. These tests initially began as assessments of basic skills, and evolved into high-stakes tests. According to Nichols (2007), high-stakes testing is a method of assessment based on the Theory of Action. This theory assumes that teachers, when faced with large incentives and threats of punishment, will work harder and become more effective, and that this will then lead to increased student motivation and parental involvement (p. 3). These types of tests began to define what was taught in Texas, how it was to be taught, and what would happen to students and schools that failed to meet the state's minimum standards. These tests continue to have consequences for students that include grade retention and withholding of a diploma until satisfactory completion of the test.

Reactions to Testing

The gradually increasing emphasis on using test scores to *grade* schools, as well as their use as measures of learning, began to raise a few eyebrows among parents of school age children. They began to complain about how much class time and homework was expected in support of testing, and how test anxiety was adversely affecting their children. The problems with an emphasis on testing were not just being voiced in Texas: "When parents are dealing with children vomiting on the morning of the tests and seeing other signs of test stress, they're going to be motivated at the voting booth," said Gloria Pipkin, the president of a testing watchdog group, the Florida Coalition for Assessment Reform (Whoriskey, 2006, p. 2). She added that "Texas and Florida are the poster children for excessive testing, and we're seeing an enormous backlash" (p. 2).

Proponents of testing argued that the dire consequences of failure motivated students to succeed (Clegg, 2007, p. 1). On the other hand, in 1997, a group of minority students represented by the Mexican American Legal Defense and Education Fund (MALDEF) filed suit against the State of Texas on the grounds that the TAAS test was illegally discriminatory (Clegg, 2007). During the trial, S.E. Phillips of Michigan State University argued in favor of the test, pointing out that the TAAS test was "increasing the level of skills and knowledge attained by high school graduates, providing better remediation for unprepared students, and closing the gap between the performance of different racial and ethnic groups" (p. 1). The judge, from the United States Court of Appeals for the Fifth Circuit, ruled in 2000 that "TAAS neither unfairly discriminates against Black and Mexican American students nor denies them their right to due process" (p. 3), and as a result of this ruling the case was dismissed.

From the beginning of the testing era there were increasing concerns being expressed by parents. Parents of school-aged children, and likely voters, began to show signs they believed that too much testing and its consequences were hurting kids, schools, and communities. Whoriskey observed that:

In Texas, a survey drafted by two polling firms, one Democratic and one Republican, and paid for by the Texas State Teachers Association, indicated that 56 percent of voters thought there was too much emphasis on state testing in their schools. A national poll by a pro-testing group, the Teaching Commission, showed that 52 percent of respondents thought that standardized tests do not accurately measure student achievement; 35 percent thought they do. (Whoriskey, 2006, p. 2)

Yet another negative effect that so much testing was having on students was that they were becoming frustrated with school and dropping out. As state-mandated standardized testing became an increasingly popular tool by which student-level, high-stakes decisions such as promotion or graduation from high school were made, it is critical to look at what the research literature tells us about how these tests may be exacerbating what some in the field have referred to as “the dropout crisis” (Orfield, 2006).

The Dropout Crisis

“There is a high school dropout crisis far beyond the imagination of most Americans, concentrated in urban schools and relegating many thousands of minority children to a life of failure” (Orfield, 2006, p. 1). This is a significant problem, which disproportionately affects the most vulnerable populations in our country. It is unacceptable that students dropping out of school should be allowed to continue as it is, without consistent and effective policies to guide students back into the system. Although schools and districts are undertaking efforts to address the dropout crisis, there is a noticeable lack of state and federal policies aimed at reducing the dropout rate by any meaningful proportion in the near or distant future.

In a 2007, Secretary of State and then-presidential candidate Hillary Clinton asserted that we should “recommit ourselves to the idea that every young person in America has the right to a high-quality education, from pre-school all the way through college” (para. 1). She pointed to an alarming practice of “states in our country that actually plan how many prison beds they will need by looking at third grade reading scores. They look at the failure rates and they extrapolate how many prison spots they’re going to need in 10 to 15 years” (para. 1).

The Texas Education Agency’s 2011 report titled *Secondary School Completion and Dropouts in Texas Public Schools 2009-10* indicated that in the 7th - 12th grades, 34,907 students dropped out during that school year (p. 54). Twenty-two percent were African American, 59 % were Hispanic, and 16 % were White (p. 60). According to the National Center for Educational Statistics 2010 report, *Public School Graduates and Dropouts From the Common Core of Data: School Year 2007–08*, 613,379 students dropped out nationwide that school year (Stillwell, 2010, p. 3). Of those students, 7 % were African American, 6 % were Hispanic, 7 % were American Indian/Alaska Native, and 3 % were White (p.3). It is hard to ignore both state and national statistics that indicate far too many minority students drop out of school. Yet it happens, often with disastrous results for the students, young boys and girls for whom continuing their education no longer seems like an option.

The Costs of Dropping Out

To emphasize why this is an important issue, we must look at who drops out and what happens to the students schools fail. Bill Milliken, founder of Communities In Schools, pointed out:

America’s 3.5 million dropouts ages 16 to 25 are truly have nots: They do not have a high school diploma, and as a result they have little hope for a decent future. They are far more likely than their peers to be unemployed, live in poverty, experience chronic poor health, depend on social services, and go to jail. Four out of every ten young adult dropouts receive some type of government assistance. Someone who did not graduate is more than eight times as likely to be in jail or prison as a person with at least a high school diploma. Half of all prison inmates are dropouts. (Milliken, 2007, p. xxii)

The Annie E. Casey Foundation reported in 2006, “because family economic distress is associated with negative social, economic, educational, and health outcomes for children, these negative outcomes tend to be concentrated in poor and low income families” (Mather & Adams, 2006, p. 1). The same report further stated that “the concentration of negative outcomes like dropping out of school, homelessness, etc. is especially pronounced for African American and Hispanic children, who were four times more likely than non-Hispanic White children to reside in families with incomes of less than \$10,000” (p. 3).

The economic costs of dropping out are staggering, not just to individuals, but also to communities and the nation. A 2006 report compiled by Nancy Martin and Samuel Halperin for the American Youth Policy Forum indicated that:

- Students who drop out cost our nation more than \$260 billion in lost wages, taxes, and productivity in their lifetimes (p. viii).
- The United States would save \$41.8 billion dollars in health care costs if the 600,000 young people who dropped out in 2004 were to complete just one additional year of education (p. viii).
- If only one third of high school dropouts were to earn a high school diploma, federal savings in reduced costs of food stamps, housing assistance, and Temporary Assistance For Needy Families would amount to \$10.8 billion annually (p. viii).

What is perhaps most troubling is the role of and the mechanisms by which schools participate in exacerbating the dropout crisis, purging their schools of students who may bring down test scores and hurt a school’s efforts to meet state and federal standards. In their research on high-stakes testing and accountability, Darling-Hammond and Heilig (2008) found that “high-stakes testing policies that rewarded and punished schools based on average student scores created incentives for schools to ‘game the system’ by excluding students from testing and, ultimately, school” (p. 75). They posited that, “gaming strategies reduced educational opportunity for African American and Latino high school students. Further, sharp increases in 9th-grade student retention and disappearance were associated with increases in 10th-grade test scores and related accountability ratings” (p. 80).

Additionally, McNeil and Valenzuela (2001) found that gaming the system to artificially inflate test scores did not improve learning; “rather, teachers and principals are motivated to meet standards by teaching to the test. Instead of creating an improved learning environment, these crude forms of assessment may reduce opportunities to learn higher-order skills, particularly for low-income students” (p. 5). This is important because many of the students who drop out may do so because of the test-driven accountability system. As Azzam (2007) explained, “a majority of students who dropped out said that they were not motivated to work hard, but that they would have worked harder had their teachers demanded more. Seventy percent believed that they could have graduated if they had tried” (p. 91). It could be that the current obsession with test scores is causing dropouts by creating learning environments that are discouraging the very students we should be trying to keep in school.

A 2006 report for the Bill and Melinda Gates Foundation stated: “There is a high school dropout epidemic in America. Each year, almost one third of all public high school students—and nearly one half of all Blacks, Hispanics, and Native Americans—fail to graduate from public high school with their class” (Bridgeland, Dilulio, & Morison, 2006, p. i). This publication was followed the same year by a *TIME* magazine cover story titled “Dropout Nation.” In it, using Shelbyville, Indiana, as an example of the dropout crisis, the author indicated:

In today’s data-happy era of accountability, testing and No Child Left Behind, here is the most astonishing statistic in the whole field of education: an increasing number of researchers are saying that nearly 1 out of 3 public high school students won’t graduate, not just in Shelbyville but around the nation. For Latinos and African Americans, the rate approaches an alarming 50%. Virtually no community, small or large, rural or urban, has escaped the problem. (Thornburgh, 2006, p. 1)

It is concerning that so many economically disadvantaged and minority students are dropping out of school. An equally disquieting issue is the effect that the loss of these future economic contributors and taxpayers will have on the economy in the long term. Orfield (2006) contended that, “the implications of these high dropout rates are far reaching and devastating for individuals, communities, and the economic vitality of this country” (p. 1). Intensifying this problem is the reality that dropout-reporting measures vary so widely that the states and the U.S. Department of Education have no solid grasp on just how many students are dropping out.

Conclusion

In his February 24, 2009, address to Congress, President Barack Obama laid out his vision for education. His speech focused on growing the economy and navigating our way out of the financial downturn. A key factor in this recovery effort, according to the President, was improving educational outcomes for all students and closing the persistent gaps in education between the affluent and the poor. The President stated that, “in a global economy where the most valuable skill you can sell is your knowledge, a good education is no longer just a pathway to opportunity—it is a pre-requisite” (Remarks of President

Barack Obama, 2009, para. 45). He wasted no time in addressing one of his key concerns, dropouts:

Right now, three-quarters of the fastest-growing occupations require more than a high school diploma. Yet, just over half of our citizens have that level of education. We have one of the highest high school dropout rates of any industrialized nation. And half of the students who begin college never finish. (Remarks of President Barack Obama, 2009, para. 46)

Continued educational inequalities are an outgrowth of a much deeper ideology that disregards the reality that students of color are disproportionately dropping out or are pushed out of school, and are more likely to be underemployed or unemployed, or end up in prison. It has even been heard from some in the education sector and those involved in the politics of education that all of this continuous bad news has become like elevator music, something recognizable but easily ignored. The point needs to be made that these numbers or statistics represent real people and real communities and that there are dire consequences involved when disproportionate numbers of poor, minority students are not completing their basic education and are left farther and farther behind in an economy that requires higher and higher educational abilities.

Research in the areas of dropout prevention and serving the needs of at-risk students suggests we look at this issue as a long-term, national, P-16 project that will ultimately strengthen schools and communities. To make it happen will require both resources and political will from the U.S. Department of Education as well as individual states’ education agencies. Knowing that dropping out is a process, schools and districts should act to develop policies and practices that identify at-risk learners in elementary school and intervene with support.

The educational community is well informed of the problems, and the resulting present environment and future consequences. The policy goals in this area should be to reduce the dropout rate, increase our public schools’ ability to keep kids engaged in learning, and enable students to use each stage of their education as a stepping stone to increased educational and professional opportunities. Holding graduation rates steady cannot be the policy goal. Given the information we have to make positive impacts in so many areas, this is unacceptable.

All too often in our public schools, at-risk students are seen as numbers that count toward meeting or failing to meet mandated Adequate Yearly Progress targets. Year after year, many of these students become negative statistics, which schools and states unfairly point to as the source of problems for the system as a whole. What we need to recognize is that this negative attention perpetuates the problem by stigmatizing the very students we should be doing everything in our power to help. What sets good programs and schools apart from the mediocre is their commitment to serving the needs of the individual. The exceptional programs are those that put people first, pay attention to the human element that is often lacking, and take the time needed to produce meaningful long-term results.

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Using Social Disorganization Theory to Guide Substance Abuse Prevention Among Adolescents: Implications for Educators

Shane Jaynes

Abstract: Substance use and abuse are problematic in the lives of adolescents, including interpersonal problems and scholastic problems. Risk for substance use has commonly been assessed at the individual level. This paper examines risk of adolescent substance abuse as a variable impacted by environmental or contextual factors surrounding the individual. Social disorganization theory is described and then adolescent substance use is considered in light of assumptions of that theory. Finally, implications for educators are developed.

School officials—from administrators, to counselors, to teachers—are increasingly the first line of response to an array of problems that impact children and families in modern society. Teachers, for instance, are the most frequent reporters of child abuse (Sinanan, 2011), meaning that they are an integral part of the child welfare intervention system. Similarly, teachers and school counselors are tasked with the early identification of anxiety disorders, conduct disorder, and other types of mental health problems in children and adolescents (Berzin et al., 2011; Headley & Campbell, 2011), making them indispensable to the mental health treatment system. In this vein, schools have a role in mediating young people's early experiences with alcohol and illicit substances and in helping to reduce the risk that adolescents will develop substance abuse problems.

Several contemporary studies suggest that a variety of obstacles need to be addressed so that schools can do more to address adolescents' risk of developing substance abuse problems. Salm and colleagues (2011) found three such obstacles: Some educators had normalized high levels of drug use, rendering real problematic behavior invisible; some tolerated substance use and affiliated behaviors (such as sleeping in class, exchanging drugs, etc.) as long as those behaviors were not too disruptive; and some educators "did not position themselves in the circle of care to participate in the prevention, intervention or rehabilitation of students involved with substances" (p. 82). They saw the whole concern as outside their role and expected someone else to intervene.

Similarly, Van Hout and Conner's (2008) study surveyed a group of secondary school teachers who felt ill prepared by their professional training to manage substance use and abuse concerns, who felt that prevention services were "haphazard, dissimilar and rather hit and miss" (p. 81), and who believed that efforts to minimize risk of substance

abuse on the part of students were outside the boundaries of a teacher's role—the same point of view noted above.

This paper has three objectives: to provide a background and overview of social disorganization theory, to explain the risk factors for adolescent substance abuse from the perspective of social disorganization theory, and to develop practical implications consistent with this particular theoretical approach for education professionals who wish to work more effectively with adolescents at risk for substance abuse. Because many educators may not be familiar with the premises of social disorganization theory, a theory that originated in sociology as an attempt to account for observed social deviance, an overview is warranted.

Social Disorganization Theory

First elaborated by Shaw and McKay (1942), social disorganization theory maintains that community characteristics are the root cause of deviance. The authors studied 21 U.S. cities, with a particular focus on Chicago, and noted three indicators that predispose communities to high rates of juvenile delinquency: poverty, high proportion of ethnic minority populations, and declining population overall. In subsequent modifications of social disorganization theory, high ethnic minority population has been replaced by heterogeneity of ethnic or racial groups and declining population has been upgraded to rate of geographic mobility or population turnover (Siu, 2007).

Poverty, heterogeneity, and mobility are predictive of delinquency and deviance because they each impact a community's ability to exert social control over its residents. High levels of poverty keep community members from marshalling the financial and human capital assets required to protect the community's interests and attend to its needs. For instance, facilitating safe and healthy recreational activities for adolescents is one such need that is

not addressed due to concentrated poverty in some communities (Bursik, 1988). Young people in a vacuum of recreational alternatives are prone to substance abuse and delinquency. Often communities with high levels of poverty also lack important connections with key decision makers who appropriate public resources, including criminal justice resources (Bursik & Grasmick, 1993).

Heterogeneity of race and ethnicity in a community, according to social disorganization theory, makes it difficult to establish common norms or a code of appropriate behavior (Madyun, 2011). Trust and sacrifice of immediate self-interest are both required of community members vis-à-vis one another in order to build the social capital displayed in cohesive communities. In the country's largest study of civic engagement, Putnam (2007) surveyed 30,000 Americans about the extent of their participation in the wider community. What he found was that in the most racially and ethnically diverse communities fewer people volunteer, vote, give to charity, or work with neighbors on community projects. Among his sample, people in the most heterogeneous communities trusted one another half as much as people in the most homogeneous communities did.

Residential mobility is the third indicator of community risk in social disorganization theory. According to Smith and Jarjoura (1988), "Residential mobility weakens social relations among community members and erodes the ability to maintain an organized community through informal social control" (p. 32). People are socialized into community networks slowly—it takes time. When established residents leave, they subtract important social capital and resilience from the community, and the local network cannot automatically replenish its social capital after such an exit. Newcomers must be vetted: Are they a risk? Do they share prevailing values? Trust is being assessed, and as the rate of mobility increases, community residents are less likely to trust one another, the social control function is diminished, and disorganization ensues.

Communities need to be able to mobilize strong responses to behaviors that violate important norms. Cohesive communities address grievances: littering, loitering, vandalism, interpersonal disputes, vacant housing, burglary, drug selling and robbery, for instance (Latkin & Curry, 2003), as well as school dropout and adolescent substance abuse.

One poignant example of a community's inability to exert control comes from Anderson's (1999) ethnography of inner-city Philadelphia. He notes that while the majority of the population is socialized to mainstream values and aspirations ("decent" people in his shorthand), the numerical minority in the disaffected subculture ("street" people) have successfully asserted their claim on public space. In one instance Anderson (1999) observed a woman simply stop her car in the middle of busy traffic, backing up all of the vehicles behind her. She waited for her companion to emerge from the barbershop and was indifferent to the situation she'd caused. Importantly, none of the other drivers confronted her; no one honked his horn or engaged a protest. The others simply waited in traffic, scared of escalating a situation that might become violent. They waited silently for over 10 minutes until her partner emerged and she moved on. In other settings, such behavior might be met with residents honking, investigating, or shouting at the woman—all forms of social control, applying deterrent consequences to undesirable behavior.

Before moving to the application of social disorganization theory to adolescent substance abuse, two further features of the theory must be highlighted. First, the theory maintains that the community is the most important unit of analysis in understanding why people behave in the ways that they do. In the middle of the twentieth century, when Shaw and McKay developed this theory, this was a very novel and dissonant idea. Freud's psychoanalytic assumptions were implicit in many fields of professional practice touching on human behavior, including: education, medicine, social work, and the law (Cavanagh, 2006; Goldstein, 1968; Specht & Courney, 1995). This means that attributions about behavior were individualistic. Professionals attributed the cause of behavior to personal sources such as recapitulation of childhood experience, unconscious defense of the ego, or an inborn drive toward aggression. Consequently, at mid-century many professionals were trained to pursue change through shaping individual cognition, motivation, or behavior.

Shaw and McKay were structuralists: They asserted that behaviors like juvenile delinquency, like norm-compliant behavior for that matter, transcended individual factors. Delinquent behavior, they maintained, is a product of certain types of communities, and therefore aggregate measures of community well being are what need attention. Individual behavior change will follow structural change in the community. Present-day policy debates often return to this basic question: With scarce resources available, should change efforts be targeted on individual behavioral change, or on bigger community or population-wide goals? To take one example, is it a better expense of money to build a community center available to all teens in a neighborhood as a source of recreation, or would the money be better spent on hiring caseworkers to intervene with those adolescents identified as at risk, truant, or delinquent? Analogs of this debate are to be found throughout different fields of practice. Social disorganization theory prioritizes the well-being of the community.

The last feature of social disorganization theory important to this overview is the informal nature of the social networks that sustain the community's well being. Communities are not cohesive, the theory suggests, because of a well-run social service program, an adroit school superintendent, or the crime deterrence policies of a particular police chief. These are all formal programs and/or individual professionals outside the network of community residents; their plans for the community get projected onto it. Furthermore, an individual's stake in a particular problem will differ based upon whether one is a paid change agent versus a parent, neighbor, or friend. It is the indigenous constellation of relationships in a community that exert informal social control and mediate emergent problems.

In a recent study of informal social control at the community level Warner (2007) examined 66 neighborhoods to explore the type of social control residents engaged in. She found that when residents perceived their local ties to be close and interdependent, they were more likely to get involved directly and personally in settling disputes. She also found that people called upon formal authority, like the police or landlords, less often in communities measured high in trust and cohesion, as opposed to communities with lower measures of the same variables. This work supports the assumptions of the theory: residents bypassing formal authority and institutions and personally involving themselves in the maintenance of the community's equilibrium.

Social Disorganization Theory Applied to Adolescent Substance Use

Adolescence, and particularly late adolescence—16 to 20 years of age—is a period of time when important neurological, cognitive, and social changes happen simultaneously for most individuals. This is the time of heaviest substance use and the period of highest vulnerability to developing substance use disorders among the population at large. See Brown et al. (2008) for a detailed description of this risk period among adolescents in general.

In terms of the scope of adolescent substance use on the national level, recent research using nationwide sampling strategies shows that exposure to alcohol and illicit drugs is common. According to the *Monitoring the Future* study sponsored by the National Institute on Drug Abuse, the following probabilities applied to high school seniors in 2010: 54 % had been drunk at least once and 75 % had tried alcohol at least once; 44 % had smoked marijuana at least once and 25 % used an illicit drug other than marijuana at least once. Among other illicit drugs used, opiates other than heroin were used at least once by 13 % of seniors while 8 % used sedatives once or more. The same NIDA study found that 11 % of the sample were daily cigarette smokers (Johnston, O'Malley, Bachman, & Schulenberg, 2011).

This level of use is not benign: Results from the *2009 National Survey on Drug Use and Health* (Substance Abuse and Mental Health Services Administration, 2010) point out that many adolescents met criteria for a substance use disorder; that is, they met criteria for the diagnosis of either substance abuse or substance dependence (addiction) according to the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* (DSM-IV). For example 10.7 % of 16-year-olds met criteria for one of the diagnoses, 14.2 % of 17-year-olds, 17.4 % of 18-year-olds, and 20.2 %, or one in five, 19-year-olds met diagnostic criteria for abuse or addiction (Substance Abuse and Mental Health Services Administration, 2010).

In the context of such common alcohol and drug use among youth, risk and protective factors have been elaborated which, when present in an adolescent's life, mediate the likelihood that she will use or abuse substances. Clark, Nguyen, and Belgrave (2011) describe risk and resilience at four levels: individual factors, family factors, peer group factors, and community factors. They note that community factors, while important, have been understudied. Wallace and Muroff (2002), after analyzing data from an earlier version of the *Monitoring the Future* study, found that risk was significantly different for African American youth as opposed to Caucasians on over half of the 55 of the measured indicators. They observed that community-level factors like social disorganization and widespread poverty were more important to the risk of substance abuse than individual, family, or peer factors among African American youth.

Socially disorganized communities exert their effects of adolescent substance use in both direct and indirect fashion. A lack of role models in many disadvantaged communities is an instance of a direct relationship between disorganization and substance use. One of the functions of a cohesive community is to provide youth with archetypes of success embodied in more mature community members. In some environments, drug dealers appear to be the most financially successful individuals observable to youth. Adolescents mimicking their behavior are likely to exhibit violence, unemployment, immediate gratification,

and, importantly, substance abuse (Yabiku et al., 2007). This is a direct influence insofar as the community has a direct responsibility to provide examples of success to its youth, thus socializing them toward prosocial aspirations and behaviors. When the community lapses in this responsibility, young people follow the archetypes of success that are available to them; in disorganized settings, this often involves heavy substance use.

Another direct influence of social disorganization on adolescent substance use involves what has been called "natural surveillance." This involves the willingness and ability of adults in the community, other than law enforcement officials, to involve themselves in mitigating disputes and exercising informal social control over children and adolescents (Hawkins, Catalano, & Miller, 1992). Yabiku et al. (2007) point out that in disorganized communities, adults refrain from natural surveillance activities for fear of retaliation or victimization as the consequence of their attempt at social control. Community members in this vein become apathetic to substance use among adolescents and, unchecked, the behavior expands. In the study of public perception of community characteristics measured against rates of adolescent substance use by Van Horn, Hawkins, Arthur, and Catalano (2007), the authors found that public perceptions of apathy were associated with de facto high rates of substance use among youth, supporting the connection between deterioration of natural surveillance and adolescent substance use.

Disorganized communities are socially isolated and alienated from the mainstream. As noted above, communities with a high degree of poverty lack important relationships to decision makers that allocate public resources. The result is that in these communities there is a lack of mediating institutions that elsewhere help at-risk youth avoid delinquency and drug use: parks, libraries, and after-school programs, among others (Boardman, Finch, Ellison, Williams, & Jackson, 2001; Yabiku et al., 2007). This isolation and lack of mediating institutions represents a third direct influence of disorganized communities on risk of adolescent substance abuse. While there are several paths by which disorganized communities impact adolescent substance use, social disorganization also operates indirectly on the same phenomenon by mediating other variables. Three instances of the indirect effect are highlighted here.

Living in a community where social control of individual behavior has broken down is inherently stressful. As residents' individual stress or depression is kindled by community conditions, substance use and abuse ensue as coping mechanisms. Latkin and Curry (2003) surveyed 818 individuals in "high drug use areas" of Baltimore. They asked for the residents' perceptions about neighborhood characteristics, including: vandalism, litter, vacant housing, teenagers hanging out, burglary, drug selling, and robbery. After controlling for individual differences on risk of developing depression, they found that people who rated these circumstances as more problematic showed higher rates of depression at a 9-month follow-up investigation, lending support to the hypothesis that living in disorganized communities has a pernicious effect on individual mental health.

Boardman et al. (2001) similarly found that among 1,101 Detroit residents there was a positive relationship between measures of neighborhood disadvantage and drug use—even after controlling for other variables that impinge on drug use. Importantly, they also found that this effect was mediated through the variable of individual

stress: that is, neighborhood factors elevated individuals' stress and that stress, in turn, predisposed people to drug use.

Social interest is another individual-level variable associated with risk of substance use, and, like stress, it is also altered by social disorganization. Lippert and Houle, (2009) describe social interest as follows:

Social interest refers to a constellation of personality characteristics broadly concerned with the degree of interest and concern individuals express for the well-being of others. It is typified by traits such as empathy, cooperation, sharing, and contributing to the well-being of one's community and interpersonal contacts (p. 3)

These authors note that individuals with high levels of social interest tend toward volunteerism, social ties, and concern for others. Low social interest is associated with stress, isolation, and drug use. Their study of 550 Chicago residents found a positive relationship between measures of neighborhood disorder and marijuana use after controlling for other variables. They found social interest to be a mediating variable between neighborhood disorder and drug use, suggesting that disadvantaged neighborhoods experience high levels of drug use because they erode social interest (empathy, cooperation, and sharing) among individual community members.

The third instance of indirect influence of social disorganization on adolescent drug use to be highlighted involves the effect that exposure to substance using peers has on adolescents' likelihood of substance use. Bernburg, Thorlindsson, and Sigfusdottir (2009) studied risk factors and incidence of substance use among 5,491 Icelandic adolescents. Unsurprisingly, they found that youth who reported several peers who used drugs were more likely to use drugs themselves. However, they also found that the community-level variable of high family dissolution (a high concentration of nonintact families in a neighborhood) exercised a strong influence on drug-using peer groups and on individual substance use after controlling for the influence of other personal risk variables.

To summarize: direct influence of social disorganization on adolescent substance abuse is facilitated through lack of role models, diminution of natural surveillance, and the absence of important institutions and organizations. The same influence is exercised indirectly through the effects that disorganization has on individual stress level, individual social interest, and individual exposure to substance using peers.

A review of professional literature in the fields of education and substance abuse prevention finds several influences on adolescent substance use that emanate from the school environment. In particular, apathy, alienation, and decay of physical infrastructure are variables that have been measured in schools and empirically connected to increased levels of adolescent substance use. These variables comport with the theory of social disorganization and its emphasis on contextual influences on individual behavior. Ennett, Flewelling, Lindrooth, and Norton (1997) studied 36 Midwestern U.S. schools, exploring neighborhood and school characteristics for their impact on adolescent substance use rates. They found that higher incidence of use occurred among students attending schools where greater levels of acceptance and normalization of use occurred. This result fits with other studies that have found that apathy to substance

use and a tendency to accommodate it are school-based barriers to prevention efforts (Salm, Seigny, Mulholland, & Greenberg, 2011; Van Hout & Connor, 2008).

Ennett et al. (1997) also found that school variables were more impactful to the outcome of adolescent substance abuse than community characteristics, speculating that this "may reflect the more proximal position of school-level variables to school substance use in the linkages among neighborhood, school, and substance use measures" (p. 67). Indeed, adolescents spend a large proportion of their time at school; so school-based circumstances can have large effects on many domains of well-being. Students spend between 6.5 and 8 hours per day at school, 32.5 to 40 hours per week, and over 8,000 hours during their adolescence in school (Grana, et al., 2010).

Alienation, being disconnected from mainstream cultural norms, is another circumstance of some school environments that increases the risk adolescent substance use. Holleran Steiker, Goldbach, Hopson, and Powell (2011) noted that many school-based substance abuse prevention programs, including standardized curricula, are not well grounded in youths' actual social, geographical, and cultural contexts, but are instead top-down and reliant, for their content, on the impressions of youth culture that researchers and curriculum developers have.

The authors studied the perceptions of 202 adolescents who had been involved in updating standard prevention curricular materials to be more relevant to actual experience. The adolescents' most concentrated theme was that current prevention materials are unrealistic or not effective. Participants' suggestions included, "more honest testimonials from actual users rather than skits in videos" and presentation of a "balanced view of substances rather than purely doom saying and focusing only on the worst outcomes" (p. 504). Schools that are indifferent or oblivious to the real circumstances of youths' experiences in their prevention efforts, curricular or otherwise, do much to alienate at-risk youth. School personnel's manifest lack of relevance communicates to youth that they (youth) are alone in truthfully weighing their ambivalence about substance use.

Decay of physical infrastructure is associated with social disorganization as noted above in the work of Latkin and Curry (2003), who examined the impact of litter, vandalism, and vacant housing on youth substance use, and Boardman et al. (2001), who examined the relationship between quantity of boarded up homes in a neighborhood and the same outcome variable. Recent research suggests that the physical infrastructure at school is also associated with rates of substance use among adolescents. Grana et al. (2010) examined incidence of substance use among a national sample of 7,058 high school students as mediated by the level of school disrepair. Graffiti, litter, and broken windows were among the 14 indicators of disrepair on the assessment used. The authors found that students attending alternative high schools were more likely to use substances when the school was in disrepair as opposed to students in regular high schools that did not exhibit this tendency. The authors recommend that school officials focus on physical infrastructure, keeping it safe, attractive, and conducive to learning, "so that youth may respond accordingly through decreases or elimination of drug use...and increases in attempts to work hard in school" (p.392).

Implications for Education Professionals

Three implications for education professionals (teachers, counselors, and administrators) can be gathered from the text above in an effort to prevent adolescent substance use and abuse. The first implication is that the issue of adolescent substance use has to become salient. Educator apathy about substance use is a recurrent theme in assessments of school-based barriers to prevention efforts (Salm et al., 2011; Van Hout & Connor, 2008). Apathy is attractive in disorganized environments; empirical investigation has borne this out (Anderson, 1999; Van Horn et al., 2007; Yabiku et al., 2007). Whether it comes from fear of reprisal, exhaustion, or indulgence of “harmless” behavior, indifference facilitates growth of substance use. Making the issue salient means formally addressing adolescent substance use and mobilizing a programmatic response.

As Falck, Nahhas, Li, & Carlson (2012) note, some schools will oppose developing or expanding substance abuse prevention policies or programs. The argument from these schools is that formally addressing such an issue requires asking and answering important questions with data: What if the data point out a problem the school is not ready to accommodate? Won't the school be responsible to intervene in any problem it finds? Furthermore, educators are already very busy attempting to comply with a great deal of bureaucracy, why oblige them to another compliance burden? The best answer is that substance use and abuse exert a well-studied and powerful negative influence on important metrics, such as grade point average, attendance rate, and high school completion (Townsend, Flisher, & King, 2007). That is, schools should address substance use and abuse because it directly impedes their mission to educate youth. How different schools choose to begin, or to advance, a project of substance abuse prevention will vary greatly (see Falck et al., 2012 for approaches involving youth survey techniques). The important characteristic is that the issue is placed on the formal agenda.

Another implication for education professionals is to be holistic and incorporate the whole school in prevention activities. In some schools, substance abuse prevention is defined by a specific curriculum being transmitted to students over several sessions of a health education class. In other instances, substance use concerns are addressed in the context of individualized educational planning after a particular student has been referred to see a school counselor or a special education professional. Each of these circumstances fosters isolation: circumscribing the problem, in the first instance, as a health class issue, and, in the second, as one that only impacts a few discretely identified students.

School climate is a more expansive intervention target than a didactic curriculum, yet school climate can lend itself to measurement and when measured in several recent studies, it has been found to significantly impact rates of adolescent substance use (LaRusso, Romer, & Selman, 2008; Shekhtmeyster, Sharkey, & You, 2011; Sznitman, Dunlop, Nalkur, Khurana, & Romer, 2012). School climate is measured as a construct of: level of peer-to-peer respect, level of respect of teachers by students, level of respect for students by teachers, and clarity of the rules (LaRusso et al., 2008). The assumption that animates a focus on school climate is that youth will more readily follow the norm-compliant behavioral cues and recommendations if they have an attachment to the adults that hold those norms.

Individual educators can recommit themselves to being available to and supportive of students. Larusso et al. (2008) found that high teacher support (serving as role models, exhibiting care and a willingness to help with school work and problems) and high teacher regard for student perspectives were associated with lower levels of substance use among students. Teachers and other school professionals need to balance the discipline function involving clarity about the rules and control of the environment with the support function of care, personal attention, and regard for students' perspectives. All of these interpersonal attributes have an impact on adolescent substance use.

The third and final implication informed by social disorganization theory for education professionals attempting to enhance substance abuse prevention efforts is rather straightforward: pay attention to the physical environment. An environment's lack of proficiency at social control is strongly communicated by environmental cues. In the same study that reported a significant relationship between school infrastructure problems and substance use, Grana et al. (2010) also reported that more than 30% of U.S. schools report extensive disrepair, impacting over 14 million students in those schools.

Individual professionals can join or begin a campaign to address physical deterioration and disrepair within the school. These efforts can range from litter and graffiti cleanup to painting, landscaping and other forms of beautification, to advocating for more large-scale and expensive changes to the physical plant.

As recently as 2011, public health researchers at Columbia University's National Center on Addiction and Substance Abuse reported that adolescent substance abuse was the nation's most urgent health problem. Borrowing from sociology, social disorganization theory helps to illuminate the contextual communitywide influences that give rise to the problem. Additionally, schools and education professionals have many opportunities to impact the lives of young people toward success in education and in life more generally. Hopefully, those opportunities are now more apparent.

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