A holistic training program for rural teachers of mainstreamed special-needs students and other students at risk sought to improve teacher knowledge about and attitudes toward high-risk students. The graduate-level course was delivered in 6 full days of instruction and included components covering innovative instructional methods, abuse and neglect issues, and the social and emotional needs of at-risk students and their families. Participants were 36 regular-education and special-education teachers, who attended the course at 2 rural off-campus sites. Results of pre/posttesting indicate that course attendance significantly increased teacher knowledge overall and in each of the three course components. The increase in teacher knowledge was greater among secondary than elementary teachers, and was greater at one site (with a large percentage of novice teachers) than at the other. There were no significant changes in teacher attitudes. With regard to attitude change, a short-term intensive approach such as this one may not be as effective as a regular 15-week course where teachers have a chance to assimilate information and use it on the job. (SV)
Impacting Attitudes of Teachers Toward Mainstream Students Who are At-Risk: A Holistic Approach

Abstract

The number of students who are at-risk continues to increase. One method used to combat the problem is preservice and/or inservice training. A holistic training program including components of emotional, academic, physical, and social needs of both student and family is the intervention in this study. This training program provided graduate students with instruction in these content areas. Statistical analysis subsequent to course delivery examined the effect of increases in knowledge on the attitudes of professional educators teaching students who are at-risk. Data collected includes dependent variable pre/post measures on knowledge about and attitudes toward students who are at-risk. A mixed analyses of variance repeated measures design was used in this study. Pre/post testing occasions were within subjects variables and demographic information about the participants were the between subjects variables tested. Results indicated that professional educators' knowledge increased on the pre/post testing occasions. Professional educators involved with secondary students had higher knowledge scores than those working with elementary students. Participants at one location had greater increases in knowledge than participants at the second location. The implications for preservice/inservice training programs targeting teachers of students who are at-risk are discussed.
Impacting Attitudes of Teachers Toward Mainstream Students Who are At-Risk: A Holistic Approach

Failure and dropout rates in rural public schools are at alarming levels (Helge, 1991). This is a problem for educators, students, and families to collectively confront. The need to rectify this situation is obvious, but a model to use as a template for reversing the trend is lacking. It is necessary to identify the at-risk population, intervene, and evaluate the approach (Helge, 1991). Lists of characteristics of students who are at-risk (Helge, 1991; Lombardi, Odell, & Novotny, 1990) are used for identification of such students. When a student exhibits one or more of these characteristics they may be at-risk (Helge, 1991). Currently, intervention by professional educators is a reactive response. The students' undesirable behaviors are manifested to the point of creating problems within the school system. The student fails a course, is retained, and/or drops out of school altogether. Formal ongoing evaluation of programs for students who are at-risk is necessary. This decreases the percentage of at-risk students failing and/or dropping out of school.

Lists of characteristics of students who are at-risk include but are not limited to such things as: grade retention, expulsion, substance abuse, low self-esteem, attempted suicide, depression, poverty, family illiteracy, children of substance abusers, children of dropouts, sexually active/pregnant children, criminal activity, minority background, students identified as special education, and physical, psychological, and/or sexual abuse, (Helge, 1991; Lombardi, Odell, & Novotny, 1990). Usually, students with disabilities exhibit one or more of the characteristics of the at-risk population as well (Helge, 1991). This compounds the problem of instruction since mainstreaming of students with special needs increases the at-risk population in the general education classroom.

Madeline Will (1986) renewed the spirit of educating all students with disabilities in the least restrictive environment in her report to the Secretary of Education. In her report, Will (1986) supports the position that most students with mildly handicapping conditions are to be educated in the regular classroom. Subsequent to that report an inclusion model, the Regular Education Initiative (REI), is emerging. As a result, an increasing number of special education and former special education students who no longer qualify to receive special services are placed in general education classrooms. In many cases this occurs before the general education teachers are advised or prepared to accept the new mainstreamed special needs students.

There are many students who are at-risk, having one or more of the characteristics listed above but never qualifying or requiring special education services. General education teachers are willing to actively participate in the mainstreaming effort. They are willing to be part of the integration of all students into the general education program. General educators' involvement includes planning, developing, implementing, and evaluating integration procedures. In order to be successful, general educators indicate a need for training (Savage & Wienke, 1989). Furthermore, Myles and Simpson (1989) suggest designing inservice programs to acquaint and re-acquaint general education teachers in methods and rationale for educating of all students in the regular classroom.

Ornstein and Levine (1989) argue that schools can make a difference in treating students who are at-risk by teaching teachers to deal with the problems that cause the at-risk students' low school achievement. Roth and Hendrickson (1991) suggest enlisting students who are at-risk to help in problem solving activities by identifying behaviors which put students in an at-risk status. In turn, if teachers empower students to view their own action and reaction in society (school) to understand their own problems as an alternative to various forms of self abuse, then students share ownership of the process to reduce the negative aspects of the at-risk status (Roth, & Hendrickson, 1991). Therefore, methods in collaborative group problem solving dealing with maltreatment issues and social skills instruction are needed components of a graduate course about treating students who are at-risk. Benefits of such instruction are development of competence in peer, parent, and teacher relations.

A culturally, ethnically, and racially pertinent holistic educational curriculum is important to all involved in the school. The content, delivery, and evaluation methods of curriculum require flexibility for change to meet the needs of all students (Gay, 1990). Moral education imbedded
into the curriculum provides the potential at-risk student with an understanding of societal problems, creates a sense of moral responsibility in the student, and acts as a proactive approach in avoiding an at-risk status for some students (Beach, 1991). In general, the school must stand above all human shortcomings and practice ethical decision making. This protects all parties in the system and at the same time reduces the at-risk status of students who are involved in dilemmas which may place them at-risk (Eberlein, 1989). A school curriculum providing a proactive approach including student involvement and components of social skills instruction, self-awareness, and morality training is important. Principals and teachers regard special education instructional methods as effective teaching strategies for students who are at-risk in the general education classroom (Lombardi, Odell, & Novotny, 1990). A proactive approach including current knowledge about students who are at-risk and the interventions appropriate to effectively educate them is also necessary (Koff & Ward, 1990). Knowledge about current academic instructional practices, maltreatment issues, and socio-emotional aspects of students who are mildly handicapped is appropriate content material to teach professional educators to effectively teach students who are at-risk. Therefore, it is essential to provide professional educators with knowledge about abuse/neglect issues, innovative instructional methods, and socio-emotional components.

Providing students with this type of holistic curriculum requires a well trained professional staff. Creating the needed changes so all students benefit from instruction in the general education classroom also requires training. Kearney and Durand (1992) suggest that teacher preparation programs for general educators include coursework that is designed to instruct future teachers in the rationale, methods, and goals of mainstreaming. Helge (1991) suggests employing a holistic inservice/preservice approach to train educational professionals for treating students who are at-risk. The emotional, academic, physical, and social needs of the student and family are topics for this training (Helge 1991). Lessen and Frankiewicz (1992) acknowledge that teachers bring their own positive and negative attributes to the classroom, but they also believe that attributes of affect in teachers can be determined and subsequently trained.

Given that (a) at-risk students are increasing in number, (b) students qualifying for special education services are most often placed in the mainstream, (c) the at-risk population in the general education program is increasing, (d) general education professional personnel need and want training, and (e) training educators about abuse/neglect issues, instructional methods, and socio-emotional issues about students who are at-risk is important, then the following question arises. If positive attitudes of general educators involved with students who are at-risk is a desirable attribute, then does a holistic training program in socio-emotional aspects, instructional methods, and maltreatment issues help improve professional educators' attitudes toward mainstreamed students who are at-risk?

Method

The purpose of this study is to determine the effect of an increase in knowledge about academic instruction methods, socio-emotional aspects, and maltreatment issues for students who are at-risk on the attitudes of professional educators serving these students in the mainstream. Other questions posed during this study concern (a) the effect of the amount of years of experience an educator has on their attitudes toward students who are at-risk in the general education classroom, (b) the effect of the type of position an educator has (i.e., special education teacher, general education teacher, substitute teacher, ancillary personnel, or administrator) on their attitudes toward students who are at-risk in the general education classroom, (c) the effect of the grade level taught by an educator on their attitudes toward students who are at-risk in the general education classroom, and (d) the effect of the location and sequence of the coursework the educator received on their attitudes toward students who are at-risk in the general education classroom.

Participants for this study were professional educators enrolled in a graduate level course at two rural off-campus locations at an Eastern teacher preparation university. There were 39 participants; 36 completed all necessary forms, probes, and surveys as sources of data for the final analysis. All educators involved in the study were employees of local education agencies (LEA's). All LEA's represented are defined as rural school systems.
Pre and post data were collected in the areas of knowledge and attitudes. Participants completed a knowledge probe about instructional methodology, socio-emotional aspects, and abuse/neglect issues. The Regular Education Initiative Survey - Revised (REIS - R) (Semmel, Abernathy, & Butera, 1992) was used to collect pre and post data on the attitudes of educators of students who are at-risk. Each measure was administered six weeks before the course and again on the final class day immediately following completion of the course. Demographic data were collected about subjects' years of service, type of professional employment in education, grade level the educator serves, and the location where subjects attended the module classes. The variable years of service was coded to reflect two groups of subjects, those with less than five years of professional experience in education and those with five or more years of professional experience. The variable type of position was coded into the three categories of regular education, special education, and substitute teacher. Included in the regular education group were professionals who were ancillary or administrative personnel.

The REIS - R (Semmel, et al. 1992) is a 50 item survey of statements, and respondents agree or disagree with the statements. Statements are positively stated so that agreement is a positive response and disagreement is a neutral or negative response. Responses are quantified by assigning one point when the respondent agrees to the statement and no points when the respondent disagrees with the statement. The total sum of points on the survey is used in the analysis.

A holistic approach including components of innovative instructional methods, abuse/neglect issues, and socio-emotional aspects was presented to increase the participants' knowledge base. The course was delivered in six full days (8 am until 4 pm) of instruction. There were three two day modules, one each on academic instruction, abuse/neglect issues, and socio-emotional aspects of students who are at-risk. The first module was presented on Monday and Tuesday; Wednesday was an off day. The second module was presented on Thursday and Friday, and the third module was presented on Monday and Tuesday of the following week. This delivery schedule gives participants a period of time to understand and then synthesize the information presented.

Results

To answer the questions posed, data were analyzed using the Statistical Analysis System, developed by Barr, Goodnight, Sall, and Helwig (1985). A mixed design was used which included one between subjects independent variable and one within subjects independent variable. In the first set of analyses, years of service (below five verses five or more years of service) was the between subjects variable. The within subjects variable was testing occasion (pre verses post).

Separate two-way analyses of variance were computed in which years of service, type of position held, grade level taught, and location of coursework were the between subject variables. The within subjects variable was testing occasion (pre verses post). The dependent variables of knowledge of instruction, knowledge of abuse and neglect, knowledge of behavior, and total knowledge, yielded a significant increase \( p < .001 \) from pre to post measures in each of these analyses of variance. The attitude measure did not show a significant increase \( (p > .05) \). The means and standard deviations for the pre to post differences are reported in Table 1. The F values for the pre/post testing occasion in these analyses of variance were almost identical, as would be expected (e.g., \( F=17.15, 17.49, 17.69, \) and 17.96 for knowledge of instructional methods across the four between subjects variables, respectively).

The between subjects independent variables did not yield significant main effects except for grade level as measured on the knowledge of abuse and neglect dependent variable, \( F(1,34)=4.30, p < .05 \). Educators of secondary students had higher scores (M=6.80, SD=0.51) than educators of elementary students (M=6.52, SD=0.79). These analyses yielded two significant interactions of location of coursework by testing occasion on the dependent variables of knowledge of socio-emotional aspects \( F(1,34)=6.15, p < .05 \) and total knowledge \( F(1,34)=6.50, p < .05 \). These interactions are depicted in Figure 1 and Figure 2, respectively.
Table 1

Main Effects of Testing Occasion on Dependent Variables

<table>
<thead>
<tr>
<th>Dependent Measures</th>
<th>Means Pre</th>
<th>SD</th>
<th>Means Post</th>
<th>SD</th>
<th>alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge of instruction</td>
<td>7.75</td>
<td>1.65</td>
<td>9.11</td>
<td>0.78</td>
<td>p&lt;.001</td>
</tr>
<tr>
<td>Knowledge of abuse/neglect</td>
<td>6.33</td>
<td>0.72</td>
<td>7.06</td>
<td>0.23</td>
<td>p&lt;.001</td>
</tr>
<tr>
<td>Knowledge of Socio-emotional</td>
<td>3.78</td>
<td>2.46</td>
<td>6.47</td>
<td>2.75</td>
<td>p&lt;.001</td>
</tr>
<tr>
<td>Knowledge Total</td>
<td>17.86</td>
<td>3.53</td>
<td>22.67</td>
<td>2.83</td>
<td>p&lt;.001</td>
</tr>
<tr>
<td>Attitude</td>
<td>25.78</td>
<td>3.55</td>
<td>26.61</td>
<td>4.28</td>
<td>ns</td>
</tr>
</tbody>
</table>

Discussion

Answers to the research questions were somewhat unexpected. Main effects of testing occasion pre versus post were determined significant for all between subjects variables. There was an increase in knowledge about the instructional, socio-emotional, and abuse/neglect issues surrounding teaching students who are at-risk in the mainstream. However, this training intervention did not create an increase in attitude of professional educators serving students who are at-risk. The course given as the intervention was responsible for the increase in total knowledge and knowledge about academic instruction, abuse/neglect issues, and socio-emotional aspects (see table 1) however, this did not cause the educators' attitudes toward students who are at risk to change.

Main effects of grade level were significantly higher for professional educators treating secondary students than those treating elementary students as measured on the abuse/neglect probe. Examination of certain demographic variables yielded significant interaction results. There were simple effects of the interaction of pre/post testing condition by coursework locations on both the socio-emotional and total knowledge dependent variable. In both of these interactions there was a greater rate of gain at one location than the other. Ostensibly, instruction was the same, but the sequence of module presentation was different at the two sites. Another difference between sites is that one site had a large group of novice teachers who exhibited lower knowledge pretest measures.

The study attempted to establish the efficacy of module-type coursework on the knowledge and attitude of inservice professional educators who are treating students who are at-risk. This was accomplished by taking pre-intervention measures on knowledge and attitude as well as demographic data regarding years of service, type of position, grade level, and location of the coursework. Post intervention data were collected on knowledge and attitude on the final class day immediately following the conclusion of the coursework. Significant increases in professional educators' knowledge resulting from instruction about education of students who are at-risk are indicated in this study. However, changes in attitudes as an result of increased knowledge about having students who are at-risk in the general education program are not indicated.
Figure 1. Interaction of (location 1 verses location 2) by pre/post testing occasion on knowledge of socio-emotional aspects.

Figure 2. Interaction of (location 1 verses location 2) by pre/post testing occasion on total knowledge.
It was hypothesized that attitudes of professional educators toward students who are at-risk would increase due to their increase in knowledge about how to treat those students. This did not happen. Reasons for no significant attitude change could be attributed to several possibilities. First, an increase in knowledge due to a short-term intensive approach may not be as effective as a regular 15 week course where educators assimilate information and use it on the job. There is evidence that attitude change is difficult at best. Second, the participants do not have time to practice techniques and recognize successes in treating students who are at-risk. Third, the attribute of positive attitudes toward students who are at-risk is better taught to professional educators directly in a specific course. Fourth, the sequencing of the presentation of the knowledge base may have some confounding effects on the synthesis of the information. Lastly, perhaps some people should not be professional educators (Lesson, & Frankeiwicz, 1992).

Structure of future pursuit of this research agenda is as follows. Collect follow-up data examining knowledge maintenance and positive attitude development three to six months after the intervention. At that time the synthesis and use of skills learned by the educators in the current study may be more solidified. Adjust the sequence of presentation of the course modules examining all possible combinations while collecting the same data each time the course is taught. Recode the "years of experience" independent variable to identify novice teachers as zero to one year. If longitudinal data do not show significant changes in attitudes toward students who are at-risk, then addition to the course of an attitude development module might be warranted.
References


