

1-1-2011

Goal Attainment Scaling to Determine Effectiveness of Individual and Group Counseling

Andrew J. Woolwine
woolwine4@marshall.edu

Follow this and additional works at: <http://mds.marshall.edu/etd>



Part of the [Education Commons](#), and the [School Psychology Commons](#)

Recommended Citation

Woolwine, Andrew J., "Goal Attainment Scaling to Determine Effectiveness of Individual and Group Counseling" (2011). *Theses, Dissertations and Capstones*. Paper 295.

This Thesis is brought to you for free and open access by Marshall Digital Scholar. It has been accepted for inclusion in Theses, Dissertations and Capstones by an authorized administrator of Marshall Digital Scholar. For more information, please contact zhangj@marshall.edu.

GOAL ATTAINMENT SCALING TO DETERMINE EFFECTIVENESS OF INDIVIDUAL
AND GROUP COUNSELING

Thesis submitted to the
Graduate College of
Marshall University

In partial fulfillment of
the requirements for the degree of
Education Specialist
in School Psychology

By

Andrew J. Woolwine, M.A.

Sandra S. Stroebel Ph.D., Committee Chairperson
Stephen O'Keefe, Ph.D.
Fred Jay Krieg, Ph.D.

Marshall University

May 2011

Table of Contents

List of Tables.....	iii
Abstract.....	iv
Chapter I	
Literature Review.....	1
Statement of Hypotheses.....	11
Chapter II	
Methods.....	12
Participants.....	12
Procedure.....	12
Chapter III	
Results.....	15
Chapter IV	
Discussion.....	20
Limitations.....	21
Recommendations.....	21
Appendix.....	23
References.....	26

List of Tables

Table 1: Between Subjects Analysis of Variance for Academics.....	17
Table 2: Between Subjects Analysis of Variance for Behavior.....	17
Table 3: Calculation of Means for Type of Counseling.....	18
Table 4: Correlations	19

ABSTRACT

The purpose of this study was to utilize the Goal Attainment Scale (GAS) during the Marshall University Summer Enrichment Program (MUSEP) to determine the effectiveness of individual counseling, group counseling, and a combination of both, on student academic and behavioral goals. Results indicated that no significant differences were found when comparing the type of counseling students received with their scores on the GAS in academics or behavior. Also, no significant differences were found when hours of treatment, combined with the type of counseling were compared to students' scores on the GAS.

Chapter One: Review Of Literature

It is widely believed that school psychologists are “testers.” Although they are recognized as the mental health providers in schools, they also receive training in consultation, collaboration, data interpretation, and counseling. There is growing recognition that (a) good mental health enhances children’s success, (b) a comprehensive program of school-based mental health services is vital in meeting children’s needs, and (c) school psychologists are positioned to provide a wide range of school-based services from prevention through individual counseling (Murphy, 2008). Counseling has always been considered a viable role for school psychologists though it has occupied a small portion of their time for various reasons. School psychologists have expressed a desire to increase the amount of counseling services they provide in their work (Murphy, 2008).

A study done by the National Association of School Psychologists (NASP) found that out of 1,398 school psychologists who reported working full-time in a school setting during the 2004-2005 year, 53.7% reported that they provided individual counseling to between 1 and 15 students and 17.7% reported that they provided individual counseling to more than 15 students (Curtis, Lopez, Castillo, Batsche, Minch, & Smith, 2008). However 28.6% of the school psychologists reported that they did not engage in any individual counseling with students (Curtis et al., 2008). In serving students through groups, 22.7% of school psychologists reported that they had served more than 10 students, with 8.8 being the mean number of students served (Curtis et al., 2008). However 60.1% of the school psychologists reported that they did not conduct any student groups (Curtis et al., 2008). Reasons that have been cited for lack of individual and group counseling by school psychologists include: demand for testing leaves little time for anything else, many districts contract with community agencies for school-based

counseling instead of looking to their school psychologist for these services, and tendency to gravitate toward providing services for which they are best trained and most comfortable (Murphy, 2008). Based on the above statistics from NASP, it appears that about half of school psychologists provide individual counseling whereas very few provide group counseling.

Individual and Group Counseling Effects on Behavior

Although half of the school psychologists are not doing any counseling, is there a benefit to students to increase counseling services in the schools? The research that has been conducted has been done with school counselors. The research findings on how individual counseling affects students behavior are somewhat mixed regarding whether it is more effective for to provide therapeutic services primarily through group interventions or through individual counseling (Whiston & Quinby, 2009). Two meta-analyses conducted by Prout & Prout (1998) and Reese, Prout, Zirkelback, & Anderson (2010) found that most research studies concerning counseling and psychotherapy in schools examined group approaches. Furthermore, more research needs to be undertaken, not only in this area but in individual counseling as well. Although it appears that group approaches are the most studied, other research suggests that individual counseling is generally more effective (Nearpass, 1990; Whiston & Quinby, 2009). Individual counseling has also been found to be the most frequent and preferred intervention mode (Prout, Alexander, Fletcher, Memis, & Miller, 1993).

The few studies listed by this research that examined the effectiveness of individual counseling on behavioral outcomes showed mostly positive behavioral gains/changes for students who received individual counseling (Frost, 1973; Littrell, Malia, & Vanderwood, 1995; Yarbrough & Thompson, 2002). Similarly, one study found that individual counseling was more consistent in reducing disruptive behavior when compared to peer group counseling (Creange,

1983). Limitations of these studies are that two are outdated (Frost, 1973; Creange; 1983) and the third study (Yarbrough & Thompson, 2002) used only two participants to determine the effectiveness of Solution Focused Brief Counseling. Further research is needed to determine the effectiveness of individual counseling on student behavior.

Although group counseling and the effects on student behavior have been studied more than individual counseling, research in this area is still lacking. Group counseling has been shown to offer the opportunity for positive peer experiences; students are able to learn universality through feedback from peers under the supervision of a trained professional (Krieg, Simpson, Stanley, & Snider, 2002). School groups also provide an opportunity for students to enhance their self-esteem and increase their communication skills (Krieg et al., 2002)

Studies that were reviewed in a meta-analysis by Reese et al. (2010) found that the majority of studies focused on addressing internalizing symptoms and/or issues (e.g., depression, anxiety, self-esteem) compared to externalizing issues (e.g., social skills, aggressive behavior). Whiston & Quinby (2009), however, found a substantial amount of studies that verified the positive effects of group counseling interventions. These studies found support for the use of group counseling approaches for social skills training, family adjustment, and discipline problems (Whiston & Quinby, 2009). It appears that school-based interventions demonstrated more improvement for externalizing issues than for internal issues (Reese et al., 2010).

Although the research is limited in this area, outcomes for students who participate in group counseling have been mostly positive (Borders & Drury, 1992). All the studies found indicated that students who received group counseling showed improvement in either internalizing issues (Bostick & Anderson, 2009; Campbell & Brigman, 2005; DeRosier, 2004) or

externalizing issues (DeRosier, 2004; Whiston & Sexton, 1998). Further research is needed in this area due to the small number of studies listed.

Individual and Group Counseling Effects on Academics

As well as examining the effects of counseling on behavior, researchers have studied its effects on academics. Once again the providers of counseling in the schools have been school counselors. Like the research regarding the effectiveness on behavior, results have been mixed when examining the impact that counseling has on academics. Studies indicated that some types of counseling in some settings have extremely positive results whereas other types of counseling in other settings appear to have little or no influence on student progress. Increased grades have been shown after developmental counseling sessions (Creange, 1983) and individual and group counseling sessions (Campbell & Brigman, 2005). Other studies have shown that there have been no academic improvements in students who receive individual or group counseling (Creange, 1983; Frost, 1973). Factors that likely impact student academic progress are type of counseling utilized, amount of time students spent in counseling, amount of training counselors received, and age at which the students began counseling impact the progress seen on student academic progress. However, it could not be determined from these studies which of these factors, if any, played a significant role in student academic gains other than the counseling itself. Future studies that control for these variables are needed.

Individual counseling sessions from school guidance counselors were shown by Grooves (as cited in Frost, 1973), to have a greater improvement on sixth- grade students' mean grade scores when compared to a group that received counseling from classroom teachers. When individual counseling was combined with tutoring with seventh grade students, significant improvements in academic performance were found (Frost, 1973). It is likely that the tutoring

played a significant role in the students' academic improvements and that these students' may have shown academic improvements without the counseling. Hall (as cited in Frost, 1973), Van Hoose and Pietrofessa (as cited in Frost, 1973) and Creange (1983), however, found no significant findings in their studies when looking at the effects of individual and routine guidance procedure at the elementary and high school levels. Due to the various outcomes that were found and the lack of recent research, the academic effects of individual counseling need to be examined further.

Although the effects of group counseling on students' academic performance mostly showed positive gains (Campbell & Brigman, 2005; Frost, 1973; Leichtentritt & Schechtman, 2010; Pokipala, 1975) more research is needed. Only one study was found that indicated peer group counseling at the high school level has no effect on student achievement (Creange, 1983). A factor that was found for this study but not in others was that the types of participants chosen were described as "disruptive high school students." This factor may have played a role with the outcome data. Further research is needed in this area due to the small number of studies found, age of the studies, and lack of support for the claim that the type of counseling can positively impact student achievement (Campbell & Brigman, 2005).

Goal Attainment Scaling (GAS)

In the 1960s, Kiresuk and Sherman created a measurement tool called Goal Attainment Scaling (GAS) to help evaluate and compare mental health centers in the United States which were receiving mental health funding (deRosenroll, 1988). Since that time, adapted versions have been utilized in evaluating educational programs and in counseling alternative school students, pregnant teens, and teenaged mothers (deRosenroll, 1988). GAS has also been widely used to evaluate health services and social services (King, McDougall, Palisano, Gritzan, &

Tucker, 1999). Primary advantages that have been demonstrated with GAS include ability to measure change in performance, responsiveness to small changes (which may be particularly useful for children with low cognitive functioning, as standardized measures may not be sensitive to the small but meaningful changes targeted for these individuals), relative ease of use, client involvement, and clinical utility (King et al., 1999).

GAS provides an individualized, criterion-referenced measure of change (King et al., 1999). The GAS procedure involves (a) defining a unique set of goals for each child, (b) specifying a range of possible outcomes for each goal (on a scale recommended to contain five levels, from -2 to +2), and (c) using the scale to evaluate the child's functional change after a specified intervention period (King et al., 1999). Due to previous uses of the GAS process being highly individualized to meet the needs of specific programs, a wide variety of GAS methodologies resulted, some of which had little consistency to the original GAS process (Mailloux et al., 2007).

Outcome data on the GAS indicated that studies have been done to test face, content, and criterion validity; however, no studies have been done on construct validity (Bowman, 2005). For reliability, tests have been completed to determine inter-rater reliability but none on test-retest or intra-rater reliability (Bowman, 2005). King et al. (1999) described in their study how to improve reliability and validity when using GAS. These procedures included ensuring that treating therapists have a minimum level of experience so they can see realistic goals in conjunction with children and parents; providing comprehensive training to therapists; using collaborative goal settings and peer review in the goal selection phase; ensuring well-written goals through training, peer review, and using a standard procedure, checklist; and independent raters (i.e., raters who do not have a personal investment in the outcome) (King et al., 1999). In

this study, King et al. (1999) demonstrated inter-rater reliability at .98 when two separate therapists rated the goals on the same occasion (King et al., 1999).

GAS Current Research

GAS has been utilized in a number of settings since its creation in the late 1960s, including a number of clinical settings, to assess not only participant growth but also to assess the effectiveness of the programs used.

An early study that was conducted showed that GAS was a valuable instrument to use in a psychiatric ward of developmentally disabled and/or behaviorally disturbed children as it provides specific prognostic information to parents, reinforces staff efforts, determines the treatment program needs of the unit, and measures the progress made with each individual child (Holroyd & Goldenberg, 1978). GAS has also been shown to be an effective measure of at-risk adolescent growth in a residential care facility in South Africa (Coughlan and Coughlan, 1999) and with patients who suffer from chronic musculoskeletal pain (Fisher, 2007).

Due to the ability of GAS to be a sensitive measure of change to the goals being set for the individual client, it was determined to be the most sensitive means to reflect change in children with sensory integration disorder after they received occupational therapy (Mailloux et al., 2007). By using the GAS, Mailloux et al. (2007) could measure small gains that would not otherwise be reflected in standardized or physiological measures.

GAS and Education

Although GAS was originally intended for use in mental health settings, its use in education has just recently started to develop. Although there has been substantial investigation and implementation of GAS in a variety of mental health and medical fields over the past 35 years, there has been less extensive research and application of GAS by school psychologists and

special educators (Roach & Elliott, 2005). Robertson-Mjaanes (2000) noted that a majority (86%) of school psychologists, teachers, and researchers had never used GAS ratings. Yet, once they learned about it, educators considered GAS a useful and time-efficient assessment method (Roach & Elliott, 2005). As was stated previously, the use of GAS by school psychologists and special educators to measure student outcome data has lacked research and application in the school setting. One of the main reasons cited for the lack of use is lack of familiarity with the GAS (Roach & Elliott, 2005). Within the continuum of behavioral assessment developed by Shapiro & Browder (1990), student GAS self-ratings can function as either self-monitoring (a form of direct assessment, completed as behavior occurs) or self-report (a less direct measure of an individual's perception of their behavior) (Roach & Elliott, 2005). Due to its emphasis on operationalizing target behaviors and on-going (i.e., time-series) evaluation of academic or behavioral progress, GAS is a particularly useful tool for monitoring students' progress and for verifying the need for additional support or intervention (Roach & Elliott, 2005).

The use of GAS in the academic setting has been shown to be an effective tool in monitoring counseling progress and goal attainment (Yarbrough & Thompson, 2002) and in setting and monitoring goals obtained by special education students (Martin, 2006). GAS ratings can provide efficient and accurate assessments of students' academic and behavioral progress. It has also been shown to be a user-friendly and meaningful way for conceptualizing and communicating change over the course of a multiweek intervention (Roach & Elliott, 2005). Not only can students complete GAS ratings to self-monitor progress, but educators and parents can utilize GAS in recording observations and perceptions of students' academic and behavioral progress (Roach & Elliott, 2005). GAS has also been shown to be particularly useful in evaluating students' progress by school psychologists working within a response-to-intervention

(RTI) model of special education identification (Roach & Elliott, 2005). Morrison, Graden, & Barnett (2009) support this claim in their study in which school psychology interns utilized GAS in Ohio to monitor the growth and outcomes of K-12 students. They do point out, though, that a possible limitation of their study is that the levels established in the GAS process were determined by interns and may be biased to produce artificially positive outcomes or artificially negative outcomes (Morrison et al., 2009). Despite these students receiving supervision, no research was done to determine the accuracy or reliability of the interns' judgments of the goal attainment (Morrison et al., 2009).

Marshall University Summer Enrichment Program

The Marshall University Summer Enrichment Program (MUSEP) is a clinical field-based experience that offers a unique learning opportunity for graduate students. Different disciplines participate in this experience, which consists of School Psychologists, School Counselors, Literacy Specialists, and Special Education Teachers. Multidisciplinary teams are formed and comprised of each of these disciplines. Each multidisciplinary team is assigned to an age/grade level that complements and extends their previous experiences (Krieg, Meikamp, O'Keefe, & Stroebel, 2006).

During the first week of the program, children/youth do not attend, which provides ample opportunity for teambuilding and collaboration between the newly formed teams. At this time, each team develops curriculum, lesson plans, behavioral management systems, and a program evaluation. Each team's curriculum is developed around a central theme. In addition to team building during the first week, in-service trainings in collaboration, teambuilding, diagnostic teaching of reading through short cycle assessment and curriculum-based assessment are

discussed. Because the curriculum has a unified theme, the tools taught in the in-service sessions are immediately applied in team meetings (Krieg et al., 2006).

The students arrive on the second week of the program in which the team members share responsibility for program and child outcomes. During this 4-week period, students attend the program from Monday-Thursday from 7:30 am to 12:30pm. Literacy is at the center of the curriculum as evidenced by an uninterrupted reading block each day. During the 90-minute reading block, all team members, instructional and support, are involved in teaching, using short cycle assessment, running reading records, leveled reading materials, and weekly regrouping of children based on skill level and instructional needs. Instruction and planning are based on the learning needs of the children. Team members use assessment information to differentiate instructional activities, which provides project-oriented, hands-on, discovery learning opportunities (Krieg et al., 2006).

Marshall University School Psychologists

During the summer practicum experience, the school psychology students are required to participate in a number of experiences.

Individual and/or small group counseling

- Students are required to conduct 4-6 sessions of group and 4-6 sessions of individual counseling. Students are encouraged to work cooperatively with fellow school psychology and counseling students to facilitate the counseling groups.

Outcome data for each child from the GAS are also used to evaluate graduate students in determining if the services and interventions they are providing are helping K-12 students improve. By monitoring the outcome data, interns and practicum students are able to assess their effectiveness in the services they provide.

The current study utilizes the GAS data to determine the effectiveness of individual counseling, group counseling, and a combination of both that was provided by school psychology students on student academic and behavioral goals. This study is needed due to the lack of studies utilizing school psychologists performing counseling in the schools. If studies demonstrate the benefits of counseling, increased counseling by school psychologists would be indicated

Statement of Hypotheses

1. Students who received both individual and group counseling will show greater academic and behavior gains on the GAS than those who did not receive counseling.
2. Students who received group counseling will show greater academic and behavior gains on the GAS than the students who did not receive counseling.
3. Students who received only individual counseling will show greater academic and behavior gains on the GAS than the students who did not receive counseling.

Chapter Two: Methods

Participants

The participants in this study were 98 students ranging from ages 5 to 16 who participated in the MUSEP. Four of the students dropped out of the program within the first 2 weeks, which left a total of 94 students. Out of the 94 students, 44 of those students did not receive any counseling, 35 students received group counseling sessions, 7 students received individual counseling sessions, and 8 students received both individual and group counseling sessions. It must be noted that the 44 students who did not receive counseling, the comparison group, might have had some services from school counselors, plus benefited from the low adult to student ratio in the classroom. A total of 15 school psychology graduate students from Marshall University Graduate College participated in the study and were required to do a minimum of 4 individual and group counseling sessions apiece.

Procedure

All 94 students who attended the MUSEP received academic and behavior goals for the 5- week instructional period as decided by the 7 teams targeting the specific needs of each student. Each team then decided which students would benefit the most from individual counseling, group counseling, or both.

Individually counseled students, depending on the age of the students, received either Parent-Child Interaction Therapy (PCIT or play therapy) or Solution Focused Brief Counseling (SFBC). The model chosen for group counseling was a process-based approach, the Adolescent Counseling School Groups model, in which the students were in control of what they discussed while the School Psychology students acted as the mediators to facilitate further discussion when necessary (Krieg, Simpson, Stanley, & Snider, 2002). It must be noted that a shorter therapeutic

group version (4-6 sessions) was incorporated instead of the 8 session model that is described by Krieg et al. (2002). The minimum time students spent in counseling was 15 minutes with the maximum time being 45 minutes. (See Appendix A).

In order to evaluate the effectiveness of counseling, Goal Attainment Scaling (GAS) was utilized. GAS is based on a 5 point scale ranging from -2 to +2. Baseline is set at 0 with the best possible outcome assigned a +2 and the worst possible outcome a -2. Students could also have received a -1, which would have indicated regression with a +1, which would have indicated a somewhat more than expected level of progress. For the purpose of the data analysis, GAS scores were transformed as follows; -2 = 0, -1 = 1, 0 = 2, +1 = 3, and +2 = 4.

The Ohio School Psychology Internship Program has developed a Step-by-Step Guide to Developing and Scaling Goals Using the Goal Attainment Scaling (Morrison, Barnett, & Graden, 2008). Marshall University school psychology students utilized this same system to develop specific goals for children during the course of the summer enrichment program. The steps are as follows:

Step 1 – Specify the Expected Level of Outcome for the Goal

As part of the problem-solving process, you will develop a goal statement that is observable, measurable, and specific. Goals should be based on baseline data, goals should be realistically ambitious, based upon what the student will likely achieve by the end of the intervention, goals should take into consideration the usual outcomes of this intervention, the resources of the student, the amount of time planned for the intervention, and the skills of the intervention specialist/change agent, goals should be socially valid (i.e., acceptable to teachers,

parents, and the student) and goals should be stated in the positive (i.e., promoting replacement behaviors).

Step 2 – Review the Expected Level of Outcome given the following considerations

Relevance: Is the goal relevant to the student’s present situation?

Availability: Are the intervention services necessary to attain this goal available?

Scale Realism: Is the expected level of outcome realistic for this student at this time with this intervention?

Step 3 – Specify the Somewhat More and Somewhat Less Than Expected Levels of Outcome for the Goal

Provide observable, measurable descriptions of outcomes that are more or less favorable than the expected outcomes in the boxes immediately below and immediately above, respectively. These descriptions are less likely to occur for this student, but still represent reasonably attainable outcomes.

Step 4 – Specify the Much More and Much Less Than Expected Levels of Outcome

Complete the extreme levels of the scale with descriptions of the indicators that are “much more” and “much less” favorable outcomes that can be realistically envisioned for the student. Each extreme level represents the outcome that might be expected to occur in 5% to 10% of similar at-risk students. (Morrison, 2006, pp.3-4)

During the first or second week of the program, baseline data were gathered for each student through behavioral observations and rating scales, curriculum-based assessments, or through the Dynamic Indicators of Basic Early Literacy Skills (DIBELS). Behavioral observations and rating

scales were completed by the School Psychology trainees. Goals were assigned to each student based on results of these instruments. Students were then rated on a scale from -2 to +2 to determine their progress towards their set goals. A mid-point was gathered during the 3rd or 4th week of the program with a final data point gathered the last week. DIBELS data was gathered by the Reading Specialists, results were analyzed, and depending if students needed reading interventions based on these results, determined if these results were used for academic GAS data.

Chapter Three: Results

For this study, the dependent variables are academic and behavioral progress. The independent variable is the type of counseling the students received, individual, group, or both. Amount of time in treatment is defined in terms of hours they received counseling services over the 5-week instructional period.

The data were analyzed using a Univariate Analysis of Variance (ANOVA) to determine if individual counseling, group counseling, or both individual and group counseling combined, had any significant impacts on students' academic and behavioral goals as rated by the GAS. No significant difference was found for Academics ($F(3, 94) = 0.954, p > .05$) or Behavior ($F(3, 94) = 0.965, p > .05$). (See tables 1 & 2). Students did not differ significantly on behavioral or academic measures regardless of the type of counseling they received.

A Pearson's r correlation was used to determine if the hours in treatment impacted students' GAS. The negative correlation between hours of treatment and academic GAS outcome data indicated that hours of treatment had little impact on academic gains, $r = -.114, p > .05$. Also, the negative correlation between hours of treatment and behavior GAS outcome data indicated that hours of treatment had little impact on behavior gains, $r = -.068, p > .05$. (See table 4). Regardless of the amount of counseling students received, hours of treatment had no significant impact on behavioral or academic outcomes.

Table 1

Between Subjects Analysis of Variance for Academics

Source	<i>df</i>	<i>F</i>	<i>Sig.</i>	<i>Mean Square</i>
Corrected Model	4	1.021	0.401	1.864
Intercept	1	29.935	0.000	54.689
Type of Counseling	3	0.954	0.418	1.744
Error	89			1.827
Total	94			
Corrected Total	93			

Table 2

Between Subjects Analysis of Variance for Behavior

Source	<i>df</i>	<i>F</i>	<i>Sig.</i>	<i>Mean Square</i>
Corrected Model	4	0.831	0.509	0.976
Intercept	1	51.599	0.000	60.628
Type of Counseling	3	0.965	0.413	1.134
Error	89			1.175
Total	94			
Corrected Total	93			

Table 3

Calculation of Means for Type of Counseling

Type of Counseling		<i>GAS Academics</i>	<i>GAS Behavior</i>
NONE	Mean	2.8864	2.9318
	N	44	44
	Std. Deviation	1.12510	1.08687
	Variance	1.266	1.181
INDIVIDUAL	Mean	2.4286	2.5714
	N	7	7
	Std. Deviation	1.81265	1.81265
	Variance	3.286	3.286
GROUP	Mean	2.4286	3.0286
	N	35	35
	Std. Deviation	1.46098	0.92309
	Variance	2.134	0.852
INDIVIDUAL AND GROUP	Mean	3.0000	2.7500
	N	8	8
	Std. Deviation	1.60357	1.03510
	Variance	2.571	1.071
Total	Mean	2.6915	2.9255
	N	94	94
	Std. Deviation	1.35223	1.08002
	Variance	1.829	1.166

Table 4

Correlations

		Hours of Treatment	GAS Academic	GAS Behavior
Hours of Treatment	Pearson Correlation	1.000	-.114	-.068
Hours of Treatment	Sig. (2-tailed)		.272	.515
	N	94.000	94	94
GAS Academic	Pearson Correlation	-.114	1.000	.286**
	Sig. (2-tailed)	.272		.005
	N	94	94.000	94
GAS Behavior	Pearson Correlation	-.068	.286**	1.000
	Sig. (2-tailed)	.515	.005	
	N	94	94	94.000

** . Correlation is significant at the 0.01 level (2-tailed)

Chapter Four: Discussion

The purpose of this study was to determine if individual counseling, group counseling, or a combination of both, was more beneficial for students' academic and behavioral gains as rated by the GAS outcome data.

It was hypothesized that children who received individual counseling, group counseling, or a combination of both would obtain higher scores as rated by the GAS data when compared to students who did not receive any type of counseling. Results indicated that no significant differences were found when comparing the treatment groups to the comparison group. It appears that the type of counseling did not have a significant impact on students' academic or behavioral goals as determined by GAS.

Past studies that have researched the type of counseling on students' academic and behavioral performance have not only shown mixed results (Campbell & Brigman, 2005; Creange, 1983; Whiston & Quinby, 2009) but were also few in number (Reese et al., 2010; Prout & Prout, 1998). Also all of the studies used school guidance counselors as the service provider as opposed to school psychologist. This study adds to the literature that counseling interventions are not always beneficial for academic and behavioral gains. This research study also adds to the literature on the use of GAS data to examine the effectiveness of services provided by school personnel and also in measuring student-outcome data.

An aspect of this study that was not found in any of the past research was the effects of the amount of time students spent in counseling and how time can impact students' academic and behavioral goals/progress. No significant effects of time were found on students' academic and behavioral goals.

Limitations

There are several limitations to this study. The first limitation was the number of sessions that students received for both individual and group counseling. Receiving only 4 individual, 4 group, or a combination of the two over a 5-week period is far less than the 30 session group counseling model that Krieg et al. (2002) describe in their publication and also less than the shortened 8-session model described (Krieg et al., 2002). The amount of counseling sessions provided possibly was not enough to have a significant effect on student academic or behavioral gains when compared to the comparison group.

Another limitation is the comparison group. The ratio of students to teachers was estimated to be about 1 teacher per every 2 students in each of the classrooms. This extra adult attention provided to the students in the “no counseling” group may have provided some unconditional classroom regard and encouragement. This low ratio would not be present in a regular environment. These small class sizes and small teacher-to-student ratios likely had a positive impact on the students who did not receive counseling services.

A third possible limitation would be the use of the GAS data by the school psychology trainees as referenced in Morrison et al. (2009). It is possible that the levels established in the GAS may be biased to produce artificially positive outcomes or artificially negative outcomes due to students being rated by school psychology trainees. Although school psychologists trainees’ judgments regarding the GAS outcomes of the students they served were conducted under the supervision of supervisors, no evidence was gathered regarding the accuracy and reliability of the school psychology trainees judgments of the goal attainment.

Recommendations

It is recommended for future studies that more counseling sessions be provided in both individual and group counseling in order to achieve the recommended number of sessions found in past research that have shown benefit to students (Krieg et al., 2002). Due to the MUSEP only running for a 5-week duration, the amount of counseling provided in that time must not have had a significant impact on students' academic and behavioral goals. With more sessions, greater improvement in the treatment group compared to the control group might be found.

A second recommendation is the size of the classrooms and small teacher-to-student ratio. Due to these two factors, these research findings might be hard to translate into an actual school setting that has one teacher in the classroom. These two factors also might have ultimately increased the control groups' ratings in academics and behavior that might not otherwise be seen if only one teacher was in the classroom. It is likely that the small groups of these classrooms also played a role with all students receiving small group instruction. It is recommended that, in order to translate future research to normal school settings, low teacher-to-student ratios should not be used to determine if this factor impacted the control group with future replication using 1 or 2 adults in the class.

A third recommendation is for independent raters to rate students on the GAS to prevent bias. A fourth recommendation would be for future studies to analyze how the number of sessions affects student outcome data rather than the hours of counseling. Finally, it is recommended that field supervisors review all GAS data.

Appendix A

List of Students GAS Data and Hours Spent in Counseling

Student	Type of Treatment	Academic GAS	Behavior GAS	Time Spent in Counseling	Total Amount Spent in Treatment	Decimal Value of time spent in counseling
1	Group	2	1	20x2	0.4	0.67
2	Comparison	1	1			0
3	Individual and Group	2	2	20x6, 25x2	2.1	2.17
4	Comparison	1	1			0
5	Group	2	1	20x4	1.2	1.33
6	Individual	2	1	15x4	1	1
7	Group	1	2	20x4	1.2	1.33
8	Comparison	1	2			0
9	Group	2	2	20x4	1.2	1.33
10	Comparison	2	2			0
11	Comparison	1	1			0
12	Individual and Group	1	1	25x3, 30x5	3.45	3.75
13	Comparison	2	2			0
14	Comparison	2	1			0
15	Group	1	1	25x3 + 30	1.45	1.75
16	Group	0	1	25x3 + 30	1.45	1.75
17	Comparison	1	2			0
18	Comparison	1	0			0
19	Comparison	0	1			0
20	Comparison	1	2			0
21	Comparison	1	2			0
22	Comparison	1	2			0
23	Individual	0	-2	25x2 +20+30	1.4	1.67
24	Comparison	0	1			
25	Comparison	1	-1			
26	Comparison	1	0			
27	Group	1	1	25x3 + 30	1.45	1.75
28	Group	1	1	25x3 + 30	1.45	1.75
29	Individual	-2	-2	20x3 + 30x3	2.3	2.5
30	Comparison	-1	1			
31	Individual	2	2	20x4	1.2	1.33
32	Group	2	1	30x5	2.3	2.5
33	Comparison	2	2			

34	Comparison	-2	-1			
35	Comparison	-2	1			
36	Group	2	2	30x5	2.3	2.5
37	Comparison	1	-1			
38	Comparison	-1	-1			
39	Comparison	-1	0			
40	Group	-2	-2	30x4	2.3	2
41	Comparison	2	2			
42	Group	-2	1	30x4	2	2
43	Group	2	-1	30x4	2	2
44	Individual	2	2	15x2 + 30+25+36	2.01	2.02
45	Individual and Group	2	1	25x4 + 20x2 + 30x3	3.5	3.83
46	Group	2	1	25x2 + 30 + 20	1.4	1.67
47	Group	-1	0	25x2 + 30 + 20	1.4	1.67
48	Individual	-2	2	25x3 + 30	1.45	1.75
49	Comparison	1	1			0
50	Comparison	2	2			0
51	Group	2	2	25 + 20 + 30x2	1.45	1.75
52	Group	-2	0	20 + 25x2 + 30x3	2.4	2.67
53	Comparison	2	2			0
54	Group	-2	0	25x5	2.05	2.08
55	Comparison	2	1			0
56	Group	0	2	25x4	1.4	1.67
57	Group	2	1	25x4	1.4	1.67
58	Comparison	1	-2			0
59	Comparison	2	2			0
60	Group and Individual	-2	2	25x4 + 30x4	3.4	3.67
61	Individual and Group	2	0	25x10	4.1	4.17
62	Group	-2	1	25x4	1.4	1.67
63	Comparison	2	1			0
64	Individual	1	1	20x4	1.2	1.33
65	Group	1	2	45x4	3	3
66	Comparison	2	2			0
67	Group	2	1	45x4	3	3
68	Individual and Group	-1	1	45x4 + 20x4	4.2	4.33
69	Group	0	1	45x4	3	3

70	Group	0	2	45x4	3	3
71	Group	0	1	45x4	3	3
72	Comparison	0	1			0
73	Group	1	1	45x4	3	3
74	Comparison	2	0			0
75	Comparison	2	2			0
76	Comparison	1	0			0
77	Comparison	1	1			0
78	Group	2	0	45x4	3	3
79	Group	1	2	30 + 25x2	1.17	1.28
80	Individual and Group	2	0	30x3 + 25x4 + 35 + 20	4.02	4.05
81	Group	0	2	30 + 25 + 20	1.12	1.2
82	Group	-2	0	30 + 25x3 + 20	2.03	2.05
83	Comparison	0	2			0
84	Comparison	0	2			0
85	Comparison	2	2			0
86	Comparison	2	1			0
87	Individual and Group	2	-1	20x4 + 25x3 + 30x2	3.32	3.53
88	Group	-1	2	30 + 25x3 + 20	2.02	2.03
89	Comparison	-1	1			0
90	Group	1	2	30 + 25x3 + 20	2.02	2.03
91	Comparison	0	-1			0
92	Group	-1	1	30 + 25+3	1.42	1.7
93	Comparison	1	0			0
94	Group	0	1	30 + 25x2	1.17	1.28

(Example of Total Amount Spent in Counseling. 3.45 = 3 hours and 45 minutes)

References

- Borders, L. D., & Drury, S. M. (1992). Comprehensive school counseling programs: A review for policymakers and practitioners. *Journal of Counseling and Development, 70*, 487 – 498.
- Bostick, D., & Anderson, R. (2009). Evaluating a small-group counseling program -- A model for program planning and improvement in the elementary setting. *Professional School Counseling, 12*(6), 428-433.
- Bowman J. (2005). Goal Attainment Scaling (GAS): General Information Summary, UWS. Obtained from www.maa.nsw.gov.au
- Campbell, C., & Brigman, G. (2005). Closing the achievement gap: A structured approach to group counseling. *Journal for Specialists in Group Work, 30*(1), 67-82.
- Coughlan, F. J., & Coughlan, N. S. (1999). Goal Attainment Scaling: An outcomes based approach to developmental assessment for South African youth in residential settings. *Southern African Journal of Child and Adolescent Mental Health, 11*(1), 27-37.
- Creange, N. C. (1983). The effects of individual and peer group counseling on a sample of disruptive high school students. (Doctoral dissertation, University of the Pacific, 1983) *Dissertation Abstracts International, 44*, 1336.
- Curtis, M. J., Lopez, A. D., Castillo, J. M., Batsche, G. M., Minch, D., & Smith, J. C. (2008, February). The status of school psychology: Demographic Characteristics, Employment Conditions, Professional Practices, and Continuing Professional Development. Retrieved on January 23, 2011, from http://www.nasponline.org/publications/cq/mocq365sp_status.aspx

- deRosenroll, D. A. (1988). *Goal Attainment Scaling: A Vehicle for Group Support in Career and Life Issues Exploration*. Retrieved from EBSCOhost.
- DeRosier, M. E. (2004). Building relationships and combating bullying: Effectiveness of a school-based social skills group intervention. *Journal of Clinical Child and Adolescent Psychology*, 33, 125-130.
- Fisher, K. (2007). Assessing clinically meaningful change following a programme for managing chronic pain. *Clinical Rehabilitation*, 22(3), 252-259.
- Frost, J. M. (1973). Counseling outcomes with fourth, fifth and sixth grade pupils. (Doctoral dissertation, Wayne State University, 1973) *Dissertation Abstracts International*, 33, 6663.
- Holroyd, J., & Goldenberg, I. (1978). The use of Goal Attainment Scaling to evaluate a ward treatment program for disturbed children. *Journal of Clinical Psychology*, 34(3), 732-739. doi:10.1002/1097-4679(197807)34:3<732::AID-JCLP2270340332>3.0.CO;2-1
- King, G., McDougall, J., Palisano, R., Gritzan, J., & Tucker, M. (1999). Goal Attainment Scaling: Its use in evaluating pediatric therapy programs. *Physical & Occupational Therapy in Pediatrics*, 19(2), 31-52.
- Krieg, F.J., Meikamp, J., O'Keefe, S., & Stroebel, S.S. (2006). Field-based Experience in Light of Changing Demographics. *Trainer's Forum*, 25, 4-7.
- Krieg, F., Simpson, C., Stanley, R. E., & Snider, D. A. (2002). Best Practices in Making School Groups Work. In A. Thomas, J. Grimes, A. Thomas, J. Grimes (Eds.) *Best practices in school psychology IV (Vol. 1, Vol. 2)* (pp. 1195-1216). Washington, DC US: National Association of School Psychologists.

- Leichtentritt, J., & Shechtman, Z. (2010). Children with and without learning disabilities: A comparison of processes and outcomes following group counseling. *Journal of Learning Disabilities, 43*(2), 169-179.
- Littrell, J. M., Malia, J. A., & Vanderwood, M. (1995). Single-session brief counseling in a high school. *Journal of Counseling & Development, 73*(4), 451-458.
- Mailloux, Z., Benson, T.A., Summers, C.A., Miller, L.J., Green, B., Burke, J.P., et al. (2007). Goal Attainment Scaling as a measure of meaningful outcomes for children with sensory integration disorders. *The American Journal of Occupational Therapy, 61*(2), 254-258.
- Martin, I. (2006). Does problem-solving and goal-setting instruction promote self-determination in early elementary students with disabilities? *School Counseling Research Brief 4.3, The Center for School Counseling Outcome Research*
- Morrison, J.Q. (2006). Guidelines for gathering impact data for the Ohio school psychology internship evaluation. Unpublished manuscript. Obtained from the author.
- Morrison, J.Q., Barnett, D.W., & Graden, J.L. (2008). Evaluation of the Ohio internship program in school psychology. University of Cincinnati.
- Morrison, J. Q., Graden, J. L., & Barnett, D. W. (2009). Steps to evaluating a statewide internship program: Model, trainee, and student outcomes. *Psychology in the Schools, 46*(10), 989-1005.
- Murphy, J. (2008). Best Practices in Conducting Brief Counseling with Students. In A. Thomas, & J. Grimes (Eds.) *Best Practices in School Psychology IV* (pp. 1439). Bethesda, MD: National Association of School Psychologists.

- Nearpass, G. L. (1990, January). Counseling and guidance effectiveness in North American high schools: A meta-analysis of the research findings. *Dissertation Abstracts International*, 50, Retrieved from EBSCOhost.
- Pokipala, D. V. (1975). A study of the effects of differential counseling on self-concept, achievement, and attendance of educationally disadvantaged children. (Doctoral dissertation, University of Southern California, 1975) *Dissertation Abstracts International*, 35, 5934.
- Prout, H. T., Alexander, S. P., Fletcher, C. E.M., Memis, J. P., & Miller, D.W. (1993). Counseling and psychotherapy services provided by school psychologists: An analysis of patterns in practice. *Journal of School Psychology*, 31(2), 309 – 316.
- Prout, S. M., & Prout, H. T. (1998). A meta-analysis of school-based studies of counseling and psychotherapy: An update. *Journal of School Psychology*, 36(2), 121 – 136.
- Reese, R. J., Prout, H., Zirkelback, E. H., & Anderson, C. R. (2010). Effectiveness of school-based psychotherapy: A meta-analysis of dissertation research. *Psychology in the Schools*, 47(10), 1035-1045.
- Roach, A. T., & Elliott, S. N. (2005). Goal Attainment Scaling: An efficient and effective approach to monitoring student progress. *Teaching Exceptional Children*, 37(4), 8-17.
- Robertson-Mjaanes, S. (2000, March). An evaluation of Goal Attainment Scaling as an intervention monitoring and outcome evaluation technique. *Dissertation Abstracts International Section A*, 60, Retrieved from EBSCOhost.
- Shapiro, E. S., & Browder, J. L. (1990). Behavioral assessment: Applications for persons with mental retardation. In J. L. Matson (Ed.), *Handbook of Behavior Modification with the Mentally Retarded* (pp. 93 -120). New York: Plenum Press.

- Whiston, S. C., & Quinby, R. F. (2009). Review of school counseling outcome research. *Psychology in the Schools*, 46(3), 267-272.
- Whiston, S. C., & Sexton, T. L. (1998). A review of school counseling outcome research: Implications for practice. *Journal of Counseling and Development*, 76, 412 – 426.
- Yarbrough, J., & Thompson, C. (2002). Using single-participant research to assess counseling approaches on children's off-task behavior. *Professional School Counseling*, 5(5), 308-314.