

Effects of School Counselors' Cognitive Behavioral Consultation on Irrational and Efficacy Beliefs of Elementary School Teachers



The Professional Counselor
Volume 3, Issue 1 | Pages 6–15
<http://tpcjournal.nbcc.org>
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www.nbcc.org
doi:10.15241/jmw.3.1.6

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Consultation is an indirect service frequently offered as part of comprehensive school counseling programs. This study explored the efficacy of a specific model of consultation, rational emotive-social behavior consultation (RE-SBC). Elementary school teachers participated in face-to-face and online consultation groups aimed at influencing irrational and efficacy beliefs. A modified posttest, quasi-experimental design was utilized. Findings suggested face-to-face RE-SB consultation is useful in directly promoting positive mental health among teachers and indirectly fostering student success. Implications and recommendations for school counselors are presented.

***Keywords:* school counseling, irrational beliefs, rational emotive behavior therapy, consultation, efficacy beliefs, cognitive behavioral therapy**

Professional school counselors are largely responsible for developing and maintaining comprehensive school counseling programs. Comprehensive programming includes collaboration and consultation aimed at supporting teachers and influencing student achievement. The recently released third edition of the ASCA National Model further supports collaboration and consultation to help teachers influence student achievement (ASCA, 2012). Consultation has been defined by Caplan (1970) as “a process of interactions between two professional persons—the consultant, who is a specialist, and the consultee, who invokes a consultant’s help in regard to a current work problem” (p. 19). More recently, Kampwirth and Powers (2012) noted that engaging in collaborative endeavors during the consultation process fosters egalitarian relationships and often yields the greatest degree of change. School counselors engaging in consultation with teachers from a collaborative perspective are typically successful in advancing educational opportunities and fostering student growth (Baker & Gerler, 2008; Schmidt, 2010; Schmidt, 2014; Sink, 2008).

Parsons and Kahn (2005) describe an integrated consultation model in which school counselors are agents of change and students are influenced systemically. In this model, for example, school counselors may provide consultation to a teacher or group of teachers in efforts to identify goals, solutions and resources aimed at meeting the needs of the school. School counselors also may engage in consultation when providing information, instructing or resolving adversities (Purkey, Schmidt, & Novak, 2010; Schmidt, 2010; Schmidt, 2014). Consultation can be conducted using various theoretical paradigms of counseling (see Crothers, Hughes, & Morine, 2008; Henderson, 1987; Jackson & Brown, 1986; Warren, 2010a). Regardless of the process or approach, however, it is important that school counselors consider consultee factors (i.e., training, culture, and emotional and cognitive characteristics) that may hinder or promote the consultation process (Brown, Pryzwansky, & Shulte, 2011).

In a review of the literature, Warren (2010b) suggested rational-emotive behavior consultation (REBC) was a viable means for addressing thoughts and emotions of teachers. REBC is a model of consultation based on rational-emotive behavior therapy (Ellis, 1962). In REBC, school counselors help identify and challenge irrational beliefs that impede teachers’ classroom performance. An irrational belief is considered a strong, unrealistic cognition that leads to self-destructive emotions and behaviors (Dryden, 2009). In a study conducted by Warren and Dowden (2012), relationships between teachers’ irrational beliefs and emotions were confirmed. REBC was effective in addressing irrational beliefs and promoting healthy emotions

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(Warren, 2010b, 2013a). Teachers who participated in face-to-face and asynchronous, online group consultation across eight weeks reported more flexible and preferential thought patterns as well as decreases in stress.

In addition to finding relationships between irrational beliefs and emotions, Warren and Dowden (2012) also noted that irrational beliefs and efficacy beliefs were strongly correlated. Efficacy beliefs are “beliefs in one’s capacity to organize and execute the courses of action required to produce given attainments” (Bandura, 1997, p. 3). Due to emerging research on irrational beliefs and efficacy beliefs, Warren and Baker (2013) explored the potential for school counselors to incorporate components of social cognitive theory (SCT; Bandura, 1986) in REBC. This integrated model of consultation uses converging aspects of SCT and REBT to comprehensively conceptualize cognitions and responses of teachers and students.

The present study builds on current literature and research related to school counselor consultation with teachers. Based on the work of Brown and Schulte (1987), Bernard and DiGiuseppe (1994), Warren (2010a, 2010b, 2013a), and Warren and Dowden (2012), rational emotive-social behavior consultation (RE-SBC) was employed in elementary schools via face-to-face and online formats. It was hypothesized that both modes of consultation would reduce the irrational beliefs of teachers. It also was hypothesized that efficacy beliefs would increase as a result of the consultation.

Method

Participants

Teacher participation was solicited during weekly staff meetings at three elementary schools in the southeastern United States. Information, including a recruitment letter about the study, was provided to prospective subjects during staff meetings. Across the three schools, 42 out of 67 teachers agreed to participate in the consultation; thirty-five teachers completed the study titled, Performance Enhancing Strategies and Techniques-Teachers (PEST-T). Thirty-two (91%) of the participants were female and three (9%) were male. The median years of teaching experience for the participants was between a range of six and fifteen.

Consultant

A doctoral candidate in counselor education and supervision provided rational emotive-social behavior consultation (RE-SBC) to both PEST-T treatment groups. The consultant’s work history included school counseling and private practice therapy. The primary theoretical orientation of the consultant was cognitive behavior therapy (CBT). The consultant, and author of this paper, completed primary and advanced practica in Rational Emotive-Cognitive Behavior Therapy at the Albert Ellis Institute in New York.

Study Design

A modified posttest, quasi-experimental design was implemented in this study. Participating teachers were grouped according to their school affiliation. The three groups were randomly assigned to one of three treatment conditions (face-to-face, online, or control). All participants completed a pretest. The posttest measures differed from those of the pretest.

Measures

The Irrational Beliefs Inventory (IBI), developed by Koopmans, Sanderman, Timmerman, and Emmelkamp (1994), was used in a preliminary analysis of the treatment groups. The IBI is a 50-item self-report measure used to assess irrational beliefs. The IBI was designed in an attempt to focus solely on irrational cognition, while isolating the construct from emotions (Bridges & Sanderman, 2002). The irrational beliefs measured on the IBI are consistent with those described in REBT (Ellis, 1962). A five-point Likert-type scale, ranging from “1” (*strongly disagree*) to “5” (*strongly agree*) is provided for respondents to demonstrate a level of agreement for each item. A sample item reads, “If I can’t keep something from happening, I don’t worry about it.” The IBI is scored by summing all item responses. Low scores reflect a tendency to think rationally, while high scores indicate a propensity to think irrationally. The IBI includes five factors: worrying, rigidity, need for approval, problem avoidance, and emotional irresponsibility. The internal consistency of the subscales of the IBI for American samples ranges from .69 (*emotional irresponsibility*) to .79 (*worrying*). When evaluated, the IBI was found more reliable and valid than other measures of irrational beliefs (DuPlessis, Moller, & Steel, 2004)

The General Self Efficacy Scale (GSES; Schwarzer & Jerusalem, 1995) is a measure of self-efficacy designed for use with general populations, but can be used as a measure for specific samples as well. Statements include “I can always manage to solve difficult problems if I try hard enough” and “I am confident that I could deal efficiently with unexpected events.” The ten self-report items are rated on a 4-point scale ranging from “1” (*not at all true*) to “4” (*exactly true*). Higher scores on the GSES indicate a greater sense of agency, or the capacity to act. In most samples, the mean score per GSES item was around 2.9. The internal consistency of the GSES is .86. The validity of this measure is well-documented by studies and related literature (Scholz, Dona, Sud, & Schwarzer, 2002).

The Teachers’ Irrational Beliefs Scale (TIBS; Bernard, 1990) is used to measure irrational beliefs of teachers; its 22 self-report items are scored on a 5-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). High scores on the TIBS suggest rigidity and irrationality. The irrational beliefs measured are consistent with the theory of REBT and include low frustration tolerance, ‘awfulizing,’ demandingness, and global worth/rating. The TIBS evaluates these irrational beliefs across various teaching-related areas. These areas are represented by four subscales: Self-Downing Attitudes, Low-Frustration Tolerance Attitudes, Attitudes to School Organization, and Authoritarian Attitudes Toward Students. These areas account for 41.5% of the variance, which is similar to other scales of irrationality, thus providing evidence for construct validity (Bora, Bernard, Trip, Decsei-Radu, & Chereji, 2009). Internal consistency for the English version of the TIBS ranges from .70–.85 across the subscales and the total scale score; test-retest reliability is .80.

The Teacher Sense of Efficacy Scale (TSES; Tschannen-Moran & Woolfolk Hoy, 2001) is a measure that captures teachers’ perceived efficacy consisting of 24 items rated on a nine-point scale anchored by “1” (Nothing) to “9” (A Great Deal). The TSES includes three subscales; Efficacy in Student Engagement, Efficacy in Instructional Strategies, and Efficacy in Classroom Management. The mean score for the TSES is 7.1. Higher scores on the TSES and its subscales indicate a greater likelihood for perceived control during the completion of teaching-related tasks. Low scores reflect a poor sense of ability to affect student learning. Reliability estimates for the three sub-scales, Engagement (.87), Instruction (.91), Management (.90), and the total scale (.94) of the TSES are high. Scores on the TSES are positively correlated to scores of other existing validated measures of teacher efficacy providing evidence for construct validity (Tschannen-Moran & Woolfolk Hoy, 2001).

Procedure

Participating teachers from one elementary school met face-to-face with the consultant. All participants from another school met asynchronously, online with the consultant. The participants of the remaining school were designated as the control group. The face-to-face group met in weekly seventy-minute consultation sessions, spanning an eight-week period. The online group consultation consisted of five, asynchronous, yet interactive discussion modules, completed across an eight-week period.

Both formats of the group consultation (PEST-T) were derived from a consultation model implemented by Warren (2010a, 2013a). Decreases in irrational beliefs were noted as a result of providing face-to-face and online consultation to teachers based on rational emotive behavior therapy (REBT; Ellis, 1962). Warren, (2010a) also found a negative relationship exists between irrational beliefs and efficacy beliefs. As a result of this finding and the extrapolation of theoretical nuances of SCT (Bandura, 1986) and REBT (Ellis, 1962), suggested by Warren (2010a, 2010b), participants in this study received group rational emotive-social behavioral consultation (RE-SBC).

During the first consultation session, the face-to-face group was presented with concepts including observational learning, efficacy and reciprocal determinism. Irrational beliefs, emotions, self-defeating behaviors and other principles of REBT were explored throughout the remaining group consultation sessions. Cognitive, emotive, and behavioral strategies and techniques for increasing rational thought and efficacy beliefs were provided and demonstrated throughout the consultation (see Ellis & MacLaren, 2005). Case examples and analogies focused on teaching and classroom situations were used to explain the information presented. Interactive discussions, songs, humor and participation in demonstrations were encouraged throughout the consultation.

Throughout the asynchronous, online group consultation, the consultant provided the participants with select, layperson-oriented articles on REBT and SCT. During each session, participants were asked to read articles provided via the discussion module. The discussion modules focused on ways to increase self-efficacy, the ABC model, benefits of living rationally,

and how to dispute irrational beliefs. Participants were responsible for commenting on the readings and responding to other participants' comments. The consultant moderated the discussion modules. Participants could access and complete the discussion modules at their convenience due to the asynchronous format of the group consultation. Participants were required to dedicate approximately 1.25 hours a week to the group consultation, completing the online discussion modules and applying concepts discussed to daily living. At the conclusion of the study, members of the control group received copies of the articles used during online consultation.

Results

Preliminary Analysis

Univariate analyses of variance (ANOVAs) were conducted on scores of the IBI and the GSES compiled from both treatment conditions and the control group. No significant differences were found among the three conditions in terms of irrational beliefs, $F(2, 39) = .37, p > .05$. Pre-test equivalency also was noted for efficacy beliefs for all conditions $F(2, 39) = .48, p > .05$. In summation, irrational beliefs and efficacy beliefs held by elementary school teachers in this study were comparable across all groups.

Treatment Efficacy

Means and standard deviations for the face-to-face, on-line and control groups are presented in Table 1. Teachers who received the treatments were expected to respond by maintaining fewer irrational beliefs than the control group. Analysis revealed statistical significance for teachers' irrational beliefs, $F(2, 33) = 8.80, p < .001$, which accounted for approximately 35% of the variance among the three groups. Post hoc analyses using Tukey HSD criterion for significance indicated the average level of irrational beliefs was significantly lower in the face-to-face treatment ($M = 49.33, SD = 15.57$), when compared to the control group ($M = 65.95, SD = 9.66$). Contrary to the hypothesis, the effect of the on-line treatment on teachers' irrational beliefs ($M = 74.2, SD = 13.41$) was not statistically different from the control group.

Table 1

Means and Standard Deviations of Pre-Intervention Measures

Measure	Control (<i>n</i> = 24)		Face-to-Face (<i>n</i> = 9)		Online (<i>n</i> = 9)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
IBI	144.25	15.55	141.33	12.07	147.56	17.32
GSES	30.38	4.59	31.56	2.13	31.89	5.60

Note. IBI = Irrational Beliefs Inventory; GSES = General Self Efficacy Scale.

Further analyses on the items from the subscales of the TIBS provided additional insight into the effects of the treatments on specific irrational beliefs. Analysis of the three groups indicated statistical significance for self-downing attitudes (SDA), $F(2, 35) = 5.97, p = .006$. Post hoc comparisons indicated the mean for the face-to-face group ($M = 16.89, SD = 4.57$) statistically differed from the control group ($M = 22.95, SD = 4.49$) in terms of SDA. An omnibus ANOVA indicated that means for low frustration tolerance attitudes (LFTA) were not significantly different across groups, although a slight trend toward significance was present, $F(2, 33) = 3.13, p = .057$. Another analysis indicated statistical significance across groups for attitudes of school organization (ASO), $F(2, 33) = 4.78, p = .015$. However, criterion for significance in a Tukey HSD analysis was not met when comparing the mean of the control group ($M = 16.95, SD = 2.36$) with the mean of either treatment, face-to-face ($M = 13.89, SD = 5.95$) or online ($M = 20.0, SD = 2.74$). Group means for authoritarian attitudes toward students (AATS) also were found to be statistically significant when an ANOVA was conducted, $F(2, 33) = 6.35, p = .004$. Post hoc comparisons using the Tukey HSD analysis indicated the mean scores of the face-to-face treatment ($M = 10.78, SD = 3.67$) were significantly different from the control group ($M = 15.43, SD = 4.07$). However, the effect of the online treatment on AATS ($M = 17.4, SD = 2.61$) was not statistically different from the control group. The effects of the treatments on the participants' irrational thoughts are presented in Table 2.

Table 2

Means, Standard Deviations, and Group Comparisons on Measures of Teachers' Specific and General Irrational Beliefs at Posttest

DV	Control (<i>n</i> = 21)	Face-to-Face (<i>n</i> = 9)	Online (<i>n</i> = 5)	<i>F</i>	<i>d</i>	%	<i>p</i>
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)				
SDA	22.95 ^a (4.49)	16.89 ^a (4.57)	24.6 (6.88)	5.97	1.58	22	.006
LFTA	10.62 (3.79)	7.78 (3.19)	12.2 (2.28)	3.13	1.27	16	.057
ASO	16.95 (2.36)	13.89 (5.95)	20.0 (2.74)	4.78	1.68	22	.15
AATS	15.43 ^b (4.07)	10.78 ^b (3.67)	17.4 (2.61)	6.35	1.73	28	.004
TIB	65.95 ^c (9.66)	49.33 ^c (15.57)	74.2 (13.41)	8.80	2.09	35	< .001

Note. DV = dependent variable. SDA = Self Downward Attitudes. LFTA = Low Frustration Tolerance Attitudes. ASO = Attitudes to School Organization. AATS = Authoritarian Attitudes Toward Students. TIB = Teacher Irrational Beliefs. *d* = effect size calculated using Cohen's *d*. % = percentage of variance explained, calculated from eta squared. Degrees of Freedom (*df*) = 2 for each ANOVA. Significance set at *p* < .05.

^a Tukey HSD = 5.86, *p* < .05. ^b Tukey HSD = 4.59, *p* < .05. ^c Tukey HSD = 14.31, *p* < .05.

It also was expected that participants receiving the treatments would report higher levels of efficacy than the control group. Results indicated no statistical significance across groups in terms of teacher sense of efficacy (TSE), $F(2, 33) = 1.56, p = .225$. Additional analyses were conducted on the subscales of the TSES. Analyses measuring the group differences in terms of efficacy in instructional strategies (EIS), $F(2, 33) = .29, p = .752$, and efficacy in classroom management (ECM), $F(2, 33) = .38, p = .685$, yielded no significant difference. A statistically significant difference was found on efficacy in student engagement (ESE) when the three groups were compared, $F(2, 33) = 4.52, p = .018$, accounting for 22% of the variance. A post hoc comparison indicated the mean of the face-to-face treatment ($M = 7.03, SD = .74$) was not significant in terms of ESE when compared to the control group ($M = 7.09, SD = .77$). However, the mean of the online group ($M = 5.94, SD = .87$) was significantly less than the mean of the control group. The effects of the treatments on the participants' irrational thoughts are presented in Table 3.

Table 3

Means, Standard Deviations, and Group Comparisons on Measure of Specific and General Teacher Efficacy at Posttest

DV	Control (<i>n</i> = 21)	Face-to-Face (<i>n</i> = 9)	Online (<i>n</i> = 5)	<i>F</i>	<i>d</i>	%	<i>p</i>
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)				
ESE	7.09 ^a (.77)	7.03 (.74)	5.94 ^a (.87)	4.52	1.46	22	.019
EIS	7.56 (.61)	7.57 (.55)	7.32 (1.03)	.29	.38	1	.752
ECM	7.39 (.98)	7.42 (.77)	6.98 (1.43)	.38	.44	2	.685
TSE	7.4 (.70)	7.34 (.64)	6.80 (.69)	1.56	.87	8	.225

Note. DV = dependent variable. ESE = Efficacy in Student Engagement. EIS = Efficacy in Instructional Strategies. ECM = Efficacy in Classroom Management. TSE = Teacher Sense of Efficacy. *d* = effect size calculated using Cohen's *d*. % = percentage of variance explained, calculated from eta squared. Degrees of Freedom (*df*) = 2 for each ANOVA. Significance set at *p* < .05.

^a Tukey HSD = .94, *p* < .05.

Discussion

The findings of this study contribute to the literature on consultation as an indirect, responsive service school counselors can incorporate in comprehensive programs. In this study, teachers participating in the face-to-face RE-SBC group reported fewer irrational beliefs as compared to the control group. While low frustration tolerance attitudes (LFTA) and attitudes of school organization (ASO) were not statistically different, participants reported significant differences in irrational beliefs related to self-downing attitudes (SDA) and authoritarian attitudes toward students (AATS). The face-to-face RE-SB consultation appeared successful; however, the online consultation was not found to be effective in decreasing teachers' irrational beliefs. Inconsistent with expectation, the online group consultation appeared to increase irrational beliefs experienced by participants. Therefore, the hypothesis that both modes of consultation would reduce the irrational beliefs of teachers was partially supported.

The apparent impact of the face-to-face RE-SB group consultation on teachers' irrational beliefs is consistent with previous studies exploring face-to-face REBT group consultation (see Forman & Forman, 1980; Warren, 2010b, 2013a). In each of these studies, group consultation was found to reduce irrational beliefs and promote positive mental health among teachers. In this study, the influence of RE-SB on specific teacher beliefs is particularly noteworthy, given the negative impact of self-downing and authoritarian teaching styles on student success (see Bernard & DiGiuseppe, 1994; Phelan, 2005).

RE-SB face-to-face group consultation did not appear to influence teacher efficacy beliefs. Efficacy beliefs remained relatively unchanged for this consultation group, as compared to the control group. This finding is important to note when considering concurrent lack of change in LFTA among face-to-face group consultation participants. In an explanation of school counselors' use of cognitive behavioral consultation, Warren and Baker (2013) posited that teacher efficacy beliefs and low frustration tolerance beliefs converge. Teachers with low self-efficacy for engaging students, for example, essentially think student engagement is "too hard" or "unbearable," signature thoughts of low frustration tolerance. Warren and Dowden (2012) supported this claim in a study exploring the relationships between irrational beliefs and efficacy beliefs of teachers. In short, since low frustration tolerance beliefs were not impacted by the consultation, a lack of change in efficacy beliefs is expected. The findings of this study may further support the relationship between these constructs. However, an alternative explanation for the lack of change in efficacy beliefs and LFTA of teachers participating in the face-to-face group consultation may lie with the presentation of the consultation. It is plausible that the delivery of the consultation, related to these constructs, was slightly flawed. Positive relationships have been noted between teacher efficacy and student achievement (Goddard, Hoy, & Woolfolk Hoy, 2004; Henson, 2001; Pintrich & Schunk, 1996; Ross, 1998). More emphasis on low frustration tolerance and teacher efficacy beliefs may be needed in this consultation model if a goal for school counselors is to indirectly impact student achievement.

Regarding the online group consultation, decreases in efficacy beliefs were found among these participants. The difference in efficacy in student engagement (ESE) was significant for participants in this group as compared to the control group. On-line consultation participants reported decreases in efficacy beliefs. This finding was contrary to the hypotheses that the consultation groups would increase teachers' efficacy beliefs. Because neither consultation group was deemed to significantly increase efficacy beliefs of teachers, this hypothesis was not supported.

Implications and Recommendations for School Counselor

This study offers promise for school counselors eager to implement responsive services that have the potential to support teachers and effect systemic change. The study is consistent with current literature on school counseling practices suggesting the value of multilevel, responsive interventions that support teachers and students (see ASCA, 2012; Erford, 2011; Lee & Goodnough, 2011). Maximizing the success of students is a crucial role of professional school counselors (Dahir & Stone, 2012; Lapan, Gysbers, & Kayson, 2007). School counselors providing group consultation to teachers systemically influence student success (Parsons & Kahn, 2005). This consultation model, in its face-to-face format, has the potential to offer multilevel support, directly promoting positive mental health of teachers and indirectly influencing the success of students and parents. Teachers who think in rational ways will respond more favorably during encounters with students and parents, thus enhancing the relationship and the potential for educational success.

The findings of this study offer several implications for school counselors. First, school counselors should embrace the consultative role in their comprehensive school counseling programs. This includes intentional demonstrations of leadership, advocacy and collaboration. School counselors must play a leadership role when assessing and conceptualizing the social-emotional needs of teachers and students. Preparing, establishing and implementing systemic services such as group consultation also require leadership (Schmidt, 2014). School counselors providing consultation must possess adequate knowledge of school and classroom settings and how these environments interact with the social-emotional wellness of teachers and students. Advocacy for the success of teachers and students is inherently demonstrated by the leadership displayed when implementing responsive services such as consultation. School counselors should diligently and methodically find productive ways to advocate for students when engaging in RE-SB group consultation with teachers. As suggested by Kampwirth and Powers (2012), school counselors will find consultation with teachers is most effective when a collaborative approach is taken. Collaborating and teaming encourages teachers to be proactive and invest in the goals of the consultation efforts. School counselors can support teachers and students through consultation most readily, and ultimately effect systemic change when demonstrating these necessary roles of comprehensive services.

Next, school counselors will need to have a basic understanding of recent research and assessment procedures in order to determine the overall social-emotional health in their schools. By understanding the social-emotional climate, school counselors can tailor consultation efforts to meet individual and group needs of teachers and students. Based on recent research (Nucci, 2002; Pirtle & Perez, 2003) and data collection at the school level, school counselors may want to target beginning teachers, for example, for participation in RE-SBC. There are several models and approaches of RE-SBC that school counselors can use depending on the needs of the school (Warren & Baker, 2013).

Finally, school counselors must be knowledgeable of and understand how cognitive behavioral theory, specifically REBT, can be applied to the school setting. Some of the core tenets of REBT appear to debunk the typical mindset of teachers and school counselors. For example, teachers usually think that “students should listen and follow directions” or “parents should help their children with homework.” However, these thoughts are desirable, but not mandatory as the word “should” implies. Therefore, teachers may be skeptical, experience cognitive dissonance, or simply reject the content of the trainings altogether. School counselors will need to navigate theoretical concerns carefully, accepting teachers’ positions, yet providing clear alternative perspectives. While advanced training in REBT-CBT may not be required, it is vital that school counselors prepare and equip themselves appropriately for conducting group consultation (Warren, 2013b). Failure to adequately prepare will likely impact the effectiveness of the consultation.

Limitations and Future Research

The current study was limited in several ways. First, based on school affiliation, participants were grouped in either a control, face-to-face or online group. This cluster, convenience sampling may have led to non-equivalent groups. Preliminary analyses were conducted to control for this threat and to determine the level of homogeneity across groups. A two-stage random sample also may have been useful in ensuring randomness and equivalent groups (Ross, 2009).

Second, history is typically a threat to the validity of a study when the design includes only one group (Heppner, Kivlighan, & Wampold, 2008). Aspects of this study may be influenced by history, despite a three-group experimental design. Levels of stress for each group potentially increased toward the conclusion of the consultation due to upcoming end-of-grade testing. If this occurred, the posttest responses may have reflected the influence of the upcoming event, thus negating the true effects of the consultation. It also is important to note other factors that may have influenced the outcomes of this study, such as socio-cultural factors, the mean age of staff members, and the “culture” or “personality” each school assumes as a result of administrative leadership.

Next, experimenter expectancies may have influenced the responses of the participants beyond the effects of the consultation. If this occurred, the scores of the measures may be elevated, implying the training was more effective than it actually was. While the face-to-face group was most vulnerable to this threat due to the format of the consultation, differential attrition (44%) may have influenced the findings of the online group consultation.

Finally, all types of irrational beliefs were decreased, to some degree, for participants of the face-to-face consultation group. Teacher efficacy beliefs were not influenced and remained consistent with mean scores proposed by Tschannen-Moran and Woolfolk Hoy (2001). Due to the size of the sample of the face-to-face group, Type II errors may exist for LFTA and ASO and teacher efficacy beliefs. A significant difference may have existed, although not detected because of the limited number of participants.

Moving forward, this study may lead researchers in several directions. For example, conducting classroom observations or interviews of teachers post-consultation would provide insight into the lasting effects of the training. Ellis (2005) and Dryden (2009) have emphasized that cognitive change occurs most readily when individuals continue to challenge irrational beliefs and practice rational thinking. Replicating this study, while exploring the influence of the addition of homework assignments on irrational beliefs and efficacy beliefs of teachers, would also offer additional insight into the amount of practice required for cognitive change. Additionally, conducting a six-month follow-up may help answer questions related to level of teacher engagement, consultation duration and degree of support needed for teachers to maintain cognitive-behavioral change.

As advancements in technology occur, a redesigned online group RE-SBC model may be warranted. School counselor researchers should explore additional ways to design online RE-SBC models that are supportive and accommodating of teachers. For example, the inclusion of synchronous sessions within an asynchronous online design is worth exploring. Researchers also may want to explore synchronous, online models of consultation using technology such as webinars or three-dimensional, virtual worlds. YouTube, in particular, seems to be a useful online tool for improving online offerings for school counselors and teachers. The Halo Rational Emotive Therapy (2011) video, for example, shows the creative possibilities offered by YouTube. Apps for cell phones and tablet computing devices offer seemingly endless possibilities for convenient, online consultation and collaboration strategies for school counselors. Additionally, a modification of the face-to-face consultation to include online components may be a viable option and worth studying.

Advancements in the preparation of school counselors also may influence and increase the effectiveness of school counselors' use of technology for RE-SBC. Counselor education programs need to challenge and support graduate students in creative and inventive applications of technology in the practice of school counseling. Gerler's (1995) early challenge for school counselors to explore the edges of technology, and then later challenges by Hayden, Poynton, and Sabella (2008) for using technology to apply the ASCA National Model offer hope that the preparation of school counselors will improve online and other technological strategies in school counseling, including the use of technology for RE-SB consultation.

School counselor researchers also may want to explore the effects of RE-SB group consultation on various critical school issues. RE-SB group consultation may impact factors that influence student success, including academic achievement, bullying, disciplinary problems, motivation and teacher burnout. Warren and Stewart (2012) also suggested cognitive behavioral approaches to school counselor-teacher consultation may be effective in reducing student dropout rates. Research in these areas will be invaluable as school counselors continue to refine their roles as consultants.

In conclusion, the findings of this study provide direction for school counselors providing consultation. Cognitive behavioral consultation, such as the RE-SBC face-to-face group approach, appears to influence the irrational beliefs of elementary school teachers. Specifically, decreases in self-downing attitudes and authoritarian attitudes toward students were noted. While teacher efficacy beliefs, a predictor of student achievement, were not found, the decrease in irrational beliefs alone is important and potentially a factor in promoting student success. The online group RE-SBC effort was largely ineffective in reducing irrational beliefs or increasing efficacy beliefs. The online model of consultation should be carefully considered before implementation and deemed useless pending a significant redesign. However, both formats of RE-SBC demonstrate leadership, advocacy for the well-being of teachers and students, and collaboration among stakeholders—qualities mandatory for school counselors wishing to effect systemic change. It is hoped that this study will encourage school counselors to become familiar with and implement models of consultation that promote positive mental health of teachers and have the potential to support the educational success of students and parents.

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