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Benefits of Wellness Interventions for Persons with Chronic and Disabling Conditions: A Review of the Evidence

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Keywords

Health Promotion; Disability; Chronic Conditions

According to current estimates, more than 54 million Americans live with some type of long lasting condition or disability [1]. While these conditions are diverse and some are due to trauma (e.g., spinal cord injury), many are the result of common chronic diseases such as arthritis, heart disease, emphysema, and multiple sclerosis [2]. In an effort to influence the trajectory of functional limitations, disability, and quality of life in persons with chronic disabling conditions, a number of investigators and clinicians have begun to develop and test innovative interventions to promote the health (rather than control the disease or condition) of persons with chronic disabling conditions [3]. Some interventions have focused on a single behavior such as exercise or stress management, while others have taken a more comprehensive “lifestyle” approach [4,5]. As a group, these interventions clearly reflect the philosophical perspective of the International Classification of Functioning, Disability and Health that individuals with chronic and disabling conditions (e.g. multiple sclerosis, spinal cord injury) are fully capable of being healthy and experiencing a good quality of life [6]. The purpose of this study was to review and evaluate existing evidence supporting the use of wellness/health promotion interventions in persons with chronic disabling conditions.

Health Promotion within the Context of Chronic Disabling Conditions

In the U.S. Surgeon General’s *Call to Action to Improve the Health and Wellness of Persons with Disabilities* [7], one of the four broad program statements to be achieved is “Persons with disabilities can promote their own good health by developing and maintaining healthy lifestyles” [7, p2]. Health promotion, activities “motivated by the desire to increase well-being and actualize human potential” [8, p.7], encompasses a number of self-initiated health behaviors and emphasizes the need to enhance each person’s responsibility and commitment to a healthy lifestyle. A variety of health promoting behaviors such as physical activity, stress

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management, healthy eating, and cultivation of supportive interpersonal relationships can contribute significantly to the person's perceived health, functional status, and quality of life [9,10] and are reflected in the list of leading health indicators proposed in *Healthy People 2010* [11].

It is important to differentiate conceptually between health promotion/wellness interventions and the disease and symptom management interventions for persons with varied chronic conditions commonly described in the literature. Pender and colleagues emphasize that health promotion is not illness or injury specific and is approach motivated. This is in contrast to health protection or disease management behaviors that are motivated by the desire to avoid illness or its consequences [8]. Further complicating this assessment is the common term of 'self-management', which is used in the literature to describe both health-oriented and disease management interventions [12]. Newman, Steed, and Mulligan [13] suggested that the key feature of self-management interventions is the aim to increase the patients' involvement and control of their medical treatment and its subsequent effects on their lives. An example of a well-developed and often tested program is the Chronic Disease Self-Management Program (CDSMP). Although the CDSMP includes several health behavior topics (e.g., nutrition and exercise), the primary focus is on day-to-day management of the disease (rather than promoting health) and the primary goal is to influence the outcome and cost of the chronic illness [12].

As noted above, both wellness and disease management interventions may focus on enhancing similar behaviors—e.g., exercise and nutrition for persons with diabetes mellitus. We propose that the critical difference between these two types of approaches is how the person in interaction with their chronic disabling condition is viewed and the *purpose* of the intervention or behavior change (maximizing health and quality of life vs. control and management of disease) [5]. Wellness interventions would clearly have health or wellness in the foreground and illness or disability as context [14]. Wellness/health promotion interventions are resources that allow the person to choose behaviors to sustain and enhance quality of life within the context of living with a chronic disabling condition. Conversely, interventions primarily oriented toward controlling diseases, symptoms, and risk factors would have the chronic illness/disease perspective in the foreground and the wellness perspective in the background—such interventions are not considered in this review.

Although there is substantial interest among consumers, health care practitioners, and policymakers in wellness and health promotion interventions, the body of evidence supporting the effectiveness of these interventions has not been comprehensively examined. An earlier review by Watt, Verma, and Flynn [15] focused on 'structured interventions' designed to promote wellness in the physical, psychological, or spiritual realm and specifically excluded studies that took place in the workplace or with persons with HIV or cancer. While their initial search of MedLine (1980–1996) yielded 1,082 relevant references, only 11 of the studies met all of the inclusion criteria—that is, the study reported a randomized controlled trial (RCT) or prospective study and measured empirical outcomes. While Watt and colleagues [15] did not focus their review on the use of wellness interventions among persons with chronic and/or disabling conditions, most of the 11 studies they included in their review involved participants with chronic conditions, possibly due to the exclusion of worksite wellness programs. Although all the studies reviewed reported some positive effects of wellness-oriented interventions, Watt and colleagues [15] concluded that the evidence for wellness interventions at that time was inconclusive because of the highly variable content of the interventions and the outcomes measured, as well as the small sample sizes.

Given the continued growth of interest in wellness and health promotion during the last decade, the purpose of this study was to explore the body of evidence supporting health promotion/wellness interventions for persons with chronic and disabling conditions. Specifically, we

explored literature published in MedLine between 1990 and 2007 that addressed health promotion/wellness interventions for persons with chronic and disabling conditions. Clearly, the nature of the underlying impairment is unique to specific chronic conditions and disabilities and the complex relationship between chronic conditions and disability may be reciprocal in nature [16]. We assumed that since wellness interventions are designed to impact overall health and improve quality of life—not manage a specific disease—that there would be commonalities across conditions and thus included studies of persons with a variety of chronic and disabling conditions. For the purposes of this review, interventions were classified as wellness or health promotion interventions if the intent of the intervention was to maximize functioning, health, quality of life, or wellness and not *primarily* to reduce risk for a specific disease, achieve greater control of a disease, or enhance adherence to disease management protocols. Interventions could be structured or delivered in multiple formats (individual, group, Internet) and focused on behaviors, psychological responses, or spiritual outcomes that were *self-initiated*. We did not include interventions that were *primarily* tests of disease or symptom management strategies, medication adherence or administration, tests of assistive devices, clinical procedures administered by professionals, or methods of health care delivery. System and policy level interventions (e.g. smoking control, seat belt laws) and interventions with children were also excluded.

Methods

Literature Search

To locate studies for this review, we searched PubMed, the Web-based search and retrieval system that provides free access to MEDLINE, the National Library of Medicine's database of citations and abstracts in the fields of medicine, nursing, dentistry, and health care systems, for the period 1990 to 2007. We limited our search to PubMed because it is widely available, frequently used by clinicians, and contains more than 17 million citations dating back to the 1950s [17].

We initially used EndNote to search MedLine using medical subject heading (MeSH) terms *health promotion, wellness programs, wellness, health behaviors, exercise, physical activity, nutrition, stress* (MeSH subheading “prevention and control”), *self-care*, and *self-help group* crossed with *chronic illness/chronic disease, disability/disabled persons* (“disability” provided very few results—using the MeSH subheading “disabled persons” provided more citations). Because many authors did not select the general terms ‘chronic illness’ or ‘disability,’ we also cross-referenced our wellness/health promotion terms with 15 select chronic and/or disabling conditions (heart disease, diabetes, arthritis, multiple sclerosis, COPD, asthma, emphysema, HIV, cancer, spinal cord injury, spina bifida, stroke, renal failure, lupus, and sickle cell anemia). We did not restrict the search to major topic headings, and because we searched PubMed through EndNote, terms were not exploded. We delimited our initial search to include only studies published in English, with human subjects and randomized clinical trials or prospective studies.

The initial search, in which each of the 10-wellness/health promotion terms was crossed with each of the 17 chronic condition terms, generated 7,902 titles. Many of these were duplicates and some searches produced the same set of results. For example, conducting a search on ‘health promotion’ and ‘wellness program’ produced the same set of titles when each was cross-referenced with the chronic and/or disabling conditions terms. In addition, the terms ‘chronic disease’ and ‘chronic illness’ generated the same set of results. Once all duplications were identified and eliminated using EndNote, the remaining titles and abstracts were reviewed to screen for studies that obviously did not meet the intent of the search criteria (not about wellness interventions for persons with chronic and disabling conditions). This resulted in an initial set of 5,847 abstracts that were reviewed by two of the authors using the criteria in Table

1. Disagreements between the two co-authors on selection/rejection of an abstract were resolved by the primary author. Based on this abstract review, 246 studies were selected for detailed review. Once the full text articles were retrieved and read, an additional 56 studies were omitted from the review, as they did not meet inclusion criteria; most often, studies were excluded because they were primarily focused on disease management. Subsequently, 190 studies were included in the data extraction process (see Appendix A for the list of citations).

Data Extraction

The authors collaborated to create a data extraction form that could be used to summarize key data from each study. Initially, the first three study authors coded a set of 10 articles and reviewed their findings to ensure consistency among the reviewers. Each article was then reviewed and data were extracted by two authors. Disagreements were resolved through discussion and consensus. Information gleaned from the data extraction included citation information (date, authors), sample characteristics (number, dropouts, gender, mean age, types of chronic conditions), information about the study design and intervention (including length, theoretical basis, and delivery methods), empirical measures, methods of analysis, and findings. Our data extraction and coding process was preceded by careful training and then followed an iterative process of piloting review or coding of selected articles, calibrating agreement and then retraining as necessary [18]. A third author (JJ) calculated effect sizes for each study that provided sufficient information. The effect sizes were calculated immediate post-intervention (reported for most studies) and at the longest follow-up point. Information from the data extraction forms for the 190 studies was entered into a data file and analyzed with SPSS (Version 15.0).

Findings

Table 2 presents descriptive data summarizing the review in four major categories: sample, intervention, measures and analyses, and findings. The number of studies reporting trials of wellness interventions for persons with chronic and disabling conditions increased greatly over time. Of the 190 studies published during the 18-year review period, 156 (82%) were published during the last 7 years (2001–2007). While the average size of the samples was 100 ($SD = 102.97$), sample size ranged widely (6–688). Notably, 25% of the studies had samples of 30 or fewer; only 30% had samples larger than 100. The majority of the studies ($n = 100$, 52.7%) reported retaining greater than 85% of their participants through the last assessment. The average age of participants in the studies ranged from 28 to 88; the mean age of participants across studies was 57.92 years ($SD = 11.24$). Although most studies ($n = 137$; 72.1%) had samples representing both men and women, there were 42 studies (22.1%) focused specifically on women with chronic and disabling conditions. The majority of the studies reviewed ($n = 118$, 62%) did not report the race or ethnicity of the participants. Of the studies that did report ethnicity, the greatest number ($n = 51$, 26.8%) had samples that were primarily Caucasian or White. Only 8 of the 190 studies incorporated race or ethnicity into the analysis of outcomes. Almost all of the studies (95%) explored the impact of wellness interventions on persons diagnosed with a specific condition. These conditions included those most common in the U.S., such as cancer (17%), heart failure (13%), other cardiovascular conditions (12%), stroke (10.5%), arthritis (10.5%), and HIV (8%).

The wellness interventions that were reviewed focused on a variety of health promotion behaviors, including exercise (53%), psychological well-being and stress management (14%), and nutrition (4%). Forty-two studies (22%) reported the effects of ‘combination’ interventions that focused on two or more health behaviors (e.g., stress management, nutrition, and exercise). Most interventions (76%, $n = 144$) were not informed by theory. Of those that were ($n = 46$), the most commonly used theories were social cognitive theory ($n = 23$), the transtheoretical model of change ($n = 11$), and social support theory ($n = 7$). Interventions were most commonly

delivered to individuals ($n = 101$, 53%); others were delivered as group interventions ($n = 50$, 26%) or a combination of group and individual delivery methods ($n = 30$, 16%). The mean duration of the interventions studied was skewed (mean = 18.89 weeks, SD = 22.49) because of the wide variation in intervention length (from 1 week or less to 4 years). The majority ($n = 114$, 60%) were 12 weeks or less. We were able to determine the actual amount of time spent in the intervention condition in 103 (54%) of the studies. In these studies, the mean time of exposure to the intervention was 28.81 hours (range = 1–234 hours).

Only a small percentage of the studies ($n = 39$, 20.5%) relied solely on self-report measures to ascertain the effects of the wellness interventions. Most studies ($n = 136$, 71.6%) used self-reports in combination with either performance measures (e.g., 6-minute walk) or biologic measures (e.g., lipid profiles). In the majority (71.6%) of the studies, simple univariate statistics were used to analyze the data (e.g., t-tests, ANOVA, RMANOVA, ANCOVA). Only a relatively small percentage of the studies utilized multivariate or other more complex analytical procedures to analyze data for differences between treatment and control groups. Almost all the studies (89.5%) reported at least one significant between-group difference as a result of the intervention; most studies reported multiple significant differences. The majority of the studies ($n = 121$; 63.7%) reported only immediate post-intervention results. We calculated effect sizes for those studies that provided sufficient data to make these calculations and recorded the largest and smallest effect size for each study. Effect sizes are useful because they allow the relative magnitude of the experimental treatment from one study to another to be compared [19]. Unfortunately, only 118 studies provided the information necessary to make these calculations. Since individual studies had different end points, we calculated both the smallest and largest effect sizes at two time points—at the immediate post-intervention data collection point and at the final follow-up point. As noted in Table 2, immediate post-intervention measures had larger effect sizes. Most of the studies ($n=97$, 82.2%) that provided adequate information ($n=118$) had at least one variable with a large effect size at the immediate post-intervention measurement. For those studies that followed patients after the intervention and provided sufficient information to calculate effect size ($n = 33$), 21 (63.6%) had a large effect size in at least one outcome variable. The length of follow-up varied greatly; less than 20% of the studies reported follow-up data after 3 months.

Discussion

Compared to Watt and colleague's [15] review that spanned the years 1980 to 1996, we located a large number of studies in Medline that reported the results of RCTs of wellness interventions for persons with chronic and disabling conditions. This substantial increase may be due to an increase in actual research or publication as well as expansion in the number of journals and the specific years of these journals now indexed in Medline. It should be noted that our search did not capture all studies of RCTs with persons with chronic and disabling conditions published in Medline. If authors failed to index their study under 'chronic illness,' 'chronic disease,' or 'disability' and they did not study persons with one of the 15 specific index conditions that we used in our search (e.g., stroke, arthritis, HIV), then we did not capture that reference. For example, studies of wellness interventions with persons with Parkinson's disease were not identified in our review if the author did not use the key words 'chronic illness' or 'disability.' In addition, we limited our search to articles published in English in MedLine—no doubt, there were studies published in other languages and/or journals not indexed in MedLine that also reported RCTs of wellness interventions. While our review was not exhaustive of all studies on wellness interventions for persons with chronic and disabling conditions, it is likely that a reasonable representation of the extant studies of wellness interventions has been presented in this review on which our conclusions were based.

The large number of studies identified in this review (1990–2007) is encouraging, and suggests that more researchers are attempting to carefully and systematically study the impact of wellness interventions in persons with chronic disabling conditions. Although some studies had small samples ($N < 30$) more appropriate for pilot studies, the majority had larger samples that were more likely to be adequately powered to detect significant differences. However, only 30% of the studies had samples larger than 100. Small samples are of particular concern given the inherent heterogeneity and resulting large ‘within-group variance’ in most samples of persons with chronic and disabling conditions. Studies of wellness/health promotion interventions were conducted and reported for persons with a wide range of common chronic conditions. While some (22%) focused only on women, little systematic attention has been given to gender differences that might affect the delivery or relative effectiveness of health promotion interventions. Given the international nature of the studies reviewed, it is difficult to make any clear judgment about the representation of racial and ethnic minorities in studies. However, it is surprising that the majority of authors did not report the race/ethnicity of their participants and that very few ($n=8$, 4.2%) investigated the possible impact of ethnicity or race on outcomes. In addition, the segment of the U.S. population over age 75 is growing rapidly and likely to have at least one chronic condition. Despite the potential benefits of health promotion behaviors (notably physical activity) for maintaining and enhancing function and independence in older adults, only a very small number of studies (less than 3%) had samples with a mean age over 75 years.

That most studies included self-reports *and* performance or objective biological measures to assess the intervention outcomes was a strength. While almost all of the studies showed positive and significant impact of wellness interventions on one or more of the outcome variables, both the interventions and the measured outcomes were highly variable. For example, the interventions studied ranged from 1 week of health education and coaching for elders with cardiac conditions to 6 months of swimming for persons with asthma. Outcomes included short self-report scales (e.g., changes in mobility), performance measures such as the 6-minute walk, and biologic measures such as blood pressure. While the use of standardized measures (e.g. the SF 36) will enhance the ability to compare findings across studies, it is also important to note that many existing outcome measures confound measurements of health and function [16].

Although the *immediate* positive effects of interventions are encouraging, the lack of follow-up to determine the duration of change is of great concern. Most wellness behaviors require long-term commitment and effort to influence quality of life outcomes. The present state of the science—with only 30% of studies following persons for more than 3 months—makes it impossible to determine the long-term effects and usefulness of wellness interventions.

Most interventions were delivered on an individual basis. While this allows for individualized interventions, it is expensive and less likely to be sustained outside of a research or academic setting. For example, if a staff member received \$25 per hour for the average intervention exposure time of 28 hours, each intervention subject would require \$700 of time. Interventions using groups are not only less expensive to deliver, but this method of delivery can capitalize on the positive role modeling of similar others, allowing participants to build self-efficacy for change in health behaviors. Future studies that provide greater detail regarding the costs of the intervention delivery would allow us to begin the important process of cost-benefit analyses for wellness interventions for selected populations.

There were few examples of interventionists taking advantage of new technologies—either for delivery of the intervention, monitoring of fidelity, or assessments of outcomes. Despite substantial and important work in health behavior theory during the last two decades, there was very little evidence of its use in these studies. Given the complexity of behavior change,

especially for those seeking to change health behaviors within the context of living with a disabling condition, use of appropriate theory would strengthen future work in this area.

Virtually all studies assessed multiple outcomes of the intervention and the vast majority limited their data analysis to multiple comparisons using simple univariate methods, increasing the possibility that observed differences were due to chance rather than the treatment/intervention. Use of multivariate methods, when appropriate, would help control for the probability of Type 1 errors produced by repeated comparisons. In addition, greater use of complex hierarchical linear modeling techniques (reported in only six of the studies in this review) would enhance understanding about trajectories and moderators of change in outcomes after interventions.

There are several possible biases inherent in this review. First, as with all reviews of published studies, we are no doubt dealing with publication bias—those studies with significant findings are more likely to be published in journals that are indexed in MedLine. This seems especially likely in this case because almost 90% of the studies reported significant effects of the intervention. Author bias is another possible limitation of review of published studies. Authors may decide not to submit studies with negative findings expecting that their papers may be rejected [18]. In addition, some authors may write manuscripts with long introductions and extensive discussions while limiting the methods sections that are essential for determining the quality of the research. The CONSORT statement [20] and the related guidelines are intended to improve the quality of the reports of RCTs and allow for more transparency with regard to possible bias. The content of the Consort guidelines focuses on aspects related to the internal and external validity of the study. For example, the methods section must include the precise details of the intervention intended for each group and how and when interventions were administered – these details were not readily apparent in many of the reports reviewed. In addition, authors should clearly define primary and secondary outcome measures – this was often not specified. Many journals now require that authors use these guidelines to prepare their manuscripts – an effort that will improve the clarity and precision of research reports for readers and subsequent reviews.

An additional issue is the selection of studies for the review based on the distinction between wellness/health promotion interventions and disease management interventions. In reality, health promotion is often complementary with health protection/disease management interventions [8] and many of the best disease management programs include some focus on motivation for health promotion. Given the generally limited description of the intervention and the frequent lack of a theoretical base, it was often difficult to differentiate studies with a primary focus on wellness/health promotion and those that had a primary focus on disease management. If after review and discussion among the authors the primary focus was still unclear we chose to include the study. Other authors might have different perspectives and thus exclude or include different studies.

Conclusion

A growing body of literature provides supportive evidence of the positive impact of health promotion/ wellness interventions for persons with chronic and disabling conditions. Most studies reported significant effects, incorporated multiple measures, and did not rely solely on self-report measures. However, many studies had small sample sizes, intervention content and delivery varied greatly, and consistency was lacking among the types of outcomes assessed, even within a specific area of health promoting behavior. Our findings support an immediate positive impact of interventions; however, very little is known about the long-term impact or efficacy of these interventions due to limited follow-up. Future research efforts informed by health behavior theory that clearly specify the primary and secondary outcomes of the

intervention and pay careful attention to the CONSORT guidelines [20] would strengthen future reviews of the evidence.

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Table 1**Criteria for Inclusion in Review**

✓	Published in English
✓	Included a sample of adults with a chronic condition or disability
✓	Was an RCT or prospective study with a control or comparison group
✓	Reported findings of a wellness intervention (not disease or symptom management)
✓	Reported empirical outcomes to serve as evidence for intervention effects

Table 2

Descriptive Summary of Wellness Interventions for Persons with Chronic and Disabling Conditions: 1990–2007
(N = 190)

Variable	Frequency		Mean	SD
	n	%		
Year of Publication				
1990–2000	34	17.9		
2001–2007	156	82.1		
SAMPLE CHARACTERISTICS				
Sample Size (range = 6–688)			100.22	102.97
≤30	35	18.4		
31–100	98	51.6		
>100	57	30.0		
Percentage of Sample Completing Study			84.45	.12
≤60%	11	5.9		
61–85%	79	41.5		
>85%	100	52.7		
Mean Age of Participants (missing = 9)			57.92	11.24
28–40	16	8.8		
41–60	86	47.6		
61–75	74	40.8		
>75	5	2.8		
Gender				
Male Only	11	5.8		
Female Only	42	22.1		
Males and Females	137	72.1		
Race/Ethnicity				
Not Specified	118	62.1		
Primarily White/Caucasian	51	26.8		
Primarily Minority	15	7.9		
All one racial or ethnic group	6	3.2		
Chronic Disabling Condition				
Mobility Impairment	7	3.7		
Stroke	20	10.5		
HIV	16	8.4		
Cancer	32	16.8		
Heart Failure	24	12.6		
Other Cardiovascular	23	12.1		
Arthritis	20	10.5		

Variable	Frequency		Mean	SD
	n	%		
Multiple Sclerosis	10	5.3		
Diabetes	12	6.3		
Other	26	13.7		
INTERVENTION CHARACTERISTICS				
Type of Intervention				
Exercise	101	53.2		
Nutrition	8	4.2		
Stress Management/Psych Well Being	27	14.2		
Multiple Foci (2 or more health behaviors)	42	22.1		
General Health Education/Other	12	6.3		
Intervention Delivery				
Individual	101	53.2		
Group	50	26.3		
Individual and Group	30	15.8		
Not Clearly Specified	9	4.7		
Theoretical Base for Intervention				
Yes	46	24.2		
No	144	75.8		
Time Spent in Intervention (Range = 1–234 hrs)			28.81	33.13
<10 hours	29	28.15		
11–20 hours	22	21.35		
21–50 hours	37	35.92		
>50 hours	15	14.56		
*Missing data = 87 cases				
Duration of Intervention (Range = 1–208 weeks)	17	8.9	18.89	22.49
4 weeks or less	97	51.1		
5–12 weeks	53	27.9		
13–26 weeks	23	12.1		
More than 26 weeks				
Length of Post-intervention Follow-up				
Immediate Post Only	121	63.7		
Up to one month	12	6.3		
1–3 months	22	11.6		
>3 months	35	18.4		
MEASURES AND ANALYSES				
Types of Measures Used				

Variable	Frequency		Mean	SD
	n	%		
Self-report Only	39	20.5		
Performance Only	13	6.8		
Biological Measures Only	2	1.1		
Combination: Self-report, Performance, and/or Biological Measures	136	71.6		
Method of Analysis				
Non-parametric	10	5.3		
T-tests	23	12.2		
ANOVA	24	12.6		
RM ANOVA	54	28.4		
ANCOVA	25	13.2		
RM ANCOVA	10	5.3		
Multivariate Analysis of Variance (MANOVA, MANCOVA, RM MANOVA)	27	14.2		
Multi-level Modeling	6	3.2		
Other	11	5.8		
FINDINGS				
Significant Between-group Differences				
Yes	173	89.5		
No	17	9.5		
Number of Significant Differences				
0	15	7.9		
1	24	12.6		
2-5	110	58.8		
6-10	29	15.5		
More than 10	9	1.6		
Largest Effect Size Immediate Post-intervention (n = 118)				
Small (.20 or less)	2	1.6		
Medium (.21 to .50)	19	16.2		
Large (>.50)	97	82.2		
Smallest Effect Size Immediate Post-intervention (n = 117)				
Small (.20 or less)	92	78.6		
Medium (.21 to .50)	21	17.9		
Large (>.50)	4	3.4		
Largest Effect Size Final Follow-up (n = 33)				
Small (.20 or less)	2	6.1		

Variable	Frequency		Mean	SD
	n	%		
Medium (.21 to .50)	10	30.3		
Large (>.50)	21	63.6		
Smallest Effect Size Final Follow-up (n = 33)				
Small (.20 or less)	24	72.7		
Medium (.21 to .50)	8	24.2		
Large (>.50)	1	3.0		