

A National Survey of Clinical Psychology Graduate Student Attitudes toward Psychotherapy Treatment Manuals: A Replication Study

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Abstract—Attitudes toward treatment manuals serve as a meaningful predictor of general attitudes toward evidence-based practice. Despite demonstrating high effectiveness in treating many mental disorders, manualized treatments have been underutilized by practitioners. Thus, one can assess the state of the field regarding the adoption of evidence-based practices by surveying practitioner attitudes towards manualized treatments. This study is an adapted replication that assesses psychology graduate student attitudes towards manualized treatments, as a general marker for attitudes towards evidence-based practice. Training programs provide future clinicians with the foundation for critical skills in clinical practice. Research demonstrates that post-graduate continuing education has little to no effect on clinical practice; thus, graduate programs serve as the primary, and often final platform for all future practice. However, there are little empirical data identifying the attitudes and training of graduate students in utilizing manualized treatments. The empirical analysis of this study indicates an increase in positive attitudes among graduate student attitudes towards manualized treatments (within the United States), when compared to past surveys of professional psychologists. Findings from this study may inform graduate programs of barriers for students in developing positive attitudes toward manualized treatments and evidence-based practice. This study also serves as a preliminary predictor of the state-of-the-field, in regards to professional psychologists attitudes towards evidence-based practice, if attitudes remain stable. This study indicates that the attitudes toward utilizing evidence-based practices, such as treatment manuals, has become more positive since year 2000.

Keywords—Evidence based treatment, Future of clinical science, Manualized treatment, Student attitudes towards evidence based treatments.

I. INTRODUCTION

THE use of manualized treatments has been a controversial topic among psychologists over the past several decades [1]. Treatment manuals are defined as relatively structured interventions that are presented within the framework of a specific theory of change [2]. Manualized treatments have the ability to treat a wide range of disorders, and they have a basis in scientific research. According to advocates for manualized treatments, these are the reasons the dissemination of manuals needs to be promoted. On the other hand, critics of manuals argue that manuals discourage individual case conceptualization and minimize the importance of the therapeutic relationship [1].

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Addis and Krasnow [3] conducted one of the first studies that evaluated psychologists' attitudes toward treatment manuals. The authors surveyed 891 practicing psychologists regarding their awareness and knowledge about manuals, the range of positive and negative attitudes toward manuals within their clinical practice, and individual differences that are related to their attitudes toward treatment manuals. The authors found that 75% of survey respondents had heard of treatment manuals but only 47% reported that they use treatment manuals in their clinical work. In addition, half of the practitioners endorsed statements about manuals that dramatically differ from the way creators of manualized treatments have conceptualized them. This finding demonstrates that many practitioners have incorrect beliefs about manuals and how they are used in clinical practice. Regarding attitudes, practitioners reported feeling concerned about threats to their autonomy, the therapeutic relationship, and their ability to provide quality care to their clients. Addis and Krasnow [3] found that clinical setting and number of years in the field influenced practitioners' attitudes. Practitioners in private practice were more likely to endorse negative attitudes toward manualized treatments than practitioners who were employed in an agency. Practitioners who were more recently trained were more likely to endorse positive attitudes toward manuals than those who had been practicing in the field much longer. Overall, the results of this study indicate that discussion with colleagues and review of the literature form the foundation for attitudes and beliefs about manualized treatments rather than direct training and experience with them. Due to this finding, it is important to understand how graduate programs are introducing this information to students and, in turn, what attitudes and beliefs students are developing about manualized treatments.

Karekla et al. [4] sought to answer the first half of that question by surveying program directors regarding their school's training on empirically-supported treatments (ESTs) and manualized treatments. The results showed that approximately 22% of the program directors reported that they provided training in less than 25% of ESTs. Further, 3% indicated that they did not provide any didactic or clinical training for ESTs. Hays [5] surveyed APA-accredited predoctoral internship sites regarding how they were adapting to the American Psychological Association (APA) Division 12 Task Force on the Promotion and Dissemination of Psychological Procedures recommendations, specifically including didactic and experiential training opportunities in

ESTs. The researchers found that approximately 30% of internship sites spent little to no time providing training in ESTs. Conversely, 28% of respondents endorsed spending 15 or more hours a week providing supervision or training on using ESTs. These results show that although many graduate students are obtaining a significant amount of supervision and training in using ESTs, a majority receiving inadequate training in ESTs.

Research shows that graduate students are receiving variable degrees of training and supervision in manualized treatments, but it is less clear what attitudes they are developing toward manualized treatments as a result of their training. Karekla [4] administered surveys to graduate students assessing their demographics, knowledge, training, experience, and attitudes toward ESTs and treatment manuals. Regarding their graduate programs' theoretical orientation, 62% of students indicated cognitive, behavioral, or CBT; 33% indicated eclectic/integrative; and 3% indicated psychoanalytic/dynamic/humanistic or other. Regarding exposure to ESTs, 65% of students reported that they had not read any publications focused on ESTs or treatment manuals. The other 35% reported reading at least one publication. Regarding their plans to utilize manuals in their future clinical practice, 28% of students surveyed stated they planned to use treatment manuals "all the time", 16% stated they are not planning to use treatment manuals, and 61% were undecided.

At this time, more information is needed on graduate students' attitudes and beliefs about manuals and ESTs to determine barriers to the use of these scientifically supported psychotherapies. This study seeks to deepen our understanding of graduate student training, experience, knowledge, and attitudes toward manualized treatments by administering Addis and Krasnow's [3] survey to graduate students who are currently enrolled in a doctoral program.

II. METHOD

A. Participants

A total of 185 clinical psychology PsyD and PhD programs were contacted through their director of clinical training (DCT) throughout the United States. An email was sent to each school with a letter explaining the study and survey. The DCTs were asked to send the email out to the students in their respective programs. The survey was filled out online and was completely anonymous. The questionnaire is the exactly same as Addis and Krasnow [3] with word changes to fit the target population of doctoral level students. For full details about the questionnaire and original study please refer to the study done by Addis and Krasnow [3].

B. Survey Questionnaire

The survey questionnaire consisted of 52 self-report items that fell into four broad categories: graduate students' demographic characteristics, experience with treatment manuals, specific attitudes toward treatment manuals, and appropriateness of using treatment manuals for various disorders. The demographic characteristics included age,

gender, type of degree, orientation, and clinical settings. The majority of the questions used a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). There were a few qualitative questions allowing for open-ended responses. "Have you heard of psychotherapy treatment manuals?" and "How often do you use treatment manuals in your clinical experience?" are examples of items that assessed experience with treatment manuals. Examples of items that assessed specific attitudes towards treatment manuals are "Using a treatment manual undermines clinical creativity and artistry" and "Following a treatment manual will enhance therapeutic outcomes by ensuring that the treatment being used is supported by research." Items that assessed the appropriateness of using treatment manuals for various disorders consisted of a list of different disorders, such as depression and anxiety, and the participants were asked to respond with a 5-point Likert scale from 1 (*not appropriate at all*) to 5 (*very appropriate*).

TABLE I
 SAMPLE CHARACTERISTICS

Variable	%	N	M	SD
Gender				
Female	84	96		
Male	16	18		
Years in graduate school			3.26	1.58
Years of client contact			2.22	1.06
Clinical setting worked in				
College/ University	47	54		
Community Mental Health	68	78		
Child/ Adolescent Residential	10	11		
Adult Inpatient	16	18		
Forensic/ Correctional	15	17		
Inpatient Substance Use	10	11		
Rehabilitation Services	5	6		
Hospital Medical	36	41		
Other	21	24		
% of yearly caseload				
Infants			1.10	2.98
Children			20.96	19.92
Adolescents			22.13	19.39
Adults			67.68	30.37
Elderly			9.31	12.09
Predominant Theoretical Orientation				
Behavioral	8	9		
Biological	.9	1		
Cognitive-Behavioral	43	49		
Integrative	13	15		
Humanistic/ Existential	4	5		
Eclectic	5	6		
Family Systems	.9	1		
Psychodynamic/ psychoanalytic	19.3	22		
Other	4	5		

Note. Percentages may not equal 100 because of rounding.

TABLE II
GRADUATE STUDENTS EXPERIENCE WITH MANUALS

Item (and totally number of respondents)	N	%
Have you ever heard of psychotherapy treatment manuals? (n=109)		
Yes	105	92
No	4	4
How clear of an idea do you have of what psychotherapy treatment manual is? (n=108)		
Totally unclear	7	6
Somewhat unclear	9	8
Reasonably clear	39	34
Very clear	53	47
How much thought have you given to the use of treatment manuals in clinical practice? (n=108)		
None at all	4	4
A little bit	11	10
Some	15	13
A fair amount	48	42
A lot	30	26
How strong are your attitudes/feelings about the role of treatment manuals in clinical practice? (n=108)		
Not at all strong	14	12
Somewhat strong	41	36
Strong	39	34
Very Strong	14	12
How often do you use treatment manuals in your clinical work? (n=101)		
Never	17	15
Rarely	20	18
Sometimes	39	34
Often	22	19
Almost exclusively	3	3
How many different treatment manuals do you use on a semi-regular to regular basis? (n=101)		
None	29	25
1-2	45	40
3-4	24	21
More than 4	3	3
Have you ever helped create a treatment manual? (n=102)		
Yes	19	17
No	83	73
Have you had supervision pertaining to the use of manualized treatments? (n=114)		
Yes	77	68
No	37	33

III. RESULTS

A. Sample Characteristics

The survey was sent out to the directors of clinical training of 186 clinical psychology graduate programs across the country. A total of 114 surveys were returned. As Table I indicates, 84% of the graduate students were female ($n = 96$).

The graduate students' ages were gathered in ten-year groups (e.g., 21-30). The largest amount of graduate students fell in the 21-30 age range at 89.5% ($n = 102$), followed by 31-40 at 9.6% ($n = 11$), and 41-50 at .9% ($n = 1$). 72% of the graduate students are identified as White, not Hispanic/Latino ($n = 82$); 9.6% are identified as Hispanic/Latino ($n = 11$), 8.8% are identified as other ($n = 10$), 7% are identified as Asian Pacific Islander ($n = 8$), 1.8% are identified as Black/African American ($n = 2$), and one person did not report their ethnicity.

In terms of degrees held at the time of filling out the survey, 46.5% of the graduate students had a Master of Arts degree ($n = 53$), 30.7% had a bachelor's degree ($n = 35$), 21.9% had a

Master of Science degree ($n = 25$), and one person had a Doctor of Education degree. 51 percent of the graduate students were in PsyD programs ($n = 58$), 47.4% were in PhD programs ($n = 54$), and two students were in master's programs. The largest amount of graduate students was in a clinical psychology program at 88.6% ($n = 101$), followed by counseling psychology programs at 8.8% ($n = 10$), and two identified being in a different program. The primary reported theoretical orientation was cognitive behavioral therapy at 43% ($n = 49$), followed by psychodynamic at 19.3% ($n = 22$). The majority of the graduate students had experience with clients in a clinic/agency setting at 39.5% ($n = 45$), followed by college/university setting at 13.2% ($n = 15$).

B. Experience with Treatment Manuals

The graduate students were asked if they had ever heard of psychotherapy treatment manuals, with the majority reporting yes at 92.1% ($n = 105$), although only 67.5% ($n = 77$) reported receiving supervision pertaining to the use of psychotherapy treatment manuals (see Table II).

The graduate students were also asked about their clarity on what a psychotherapy treatment manual is. 80.7% reported that they had a reasonably clear to very clear idea ($n = 92$), and 14% reported they had a somewhat unclear to totally unclear idea ($n = 16$). In addition, they were asked how much thought they had given to the use of treatment manuals in clinical practice. The majority of the graduate students reported giving a fair amount of thought (42.1%) or a lot of thought (26.3%), whereas a smaller percentage reported giving a little bit/some thought (22.8%) or no thought at all (3.5%). In conclusion, it appears that a large percentage of current graduate students have not only heard of psychotherapy treatment manuals, but also seem to have a clear idea of their use in clinical practice and think about using them often in

clinical practice.

C. Specific Attitudes toward Manuals

To begin, the graduate students were asked how strong their attitudes/feelings were about the role of treatment manuals in clinical practice. The majority of the graduate students reported somewhat strong feelings at 36% ($n = 41$), followed by strong feelings at 34.2% ($n = 39$). Graduate students reported not at all strong feelings and very strong feelings at the same percentage of 12.3% ($n = 14$). We were interested in determining whether the 17 questions regarding attitudes toward utilizing psychotherapy treatment manuals (see Table III) truly tapped into positive and negative attitudes of the graduate students.

TABLE III
 GRADUATE STUDENT ATTITUDES TOWARDS MANUALS

Item	M	SD	Factor loadings ^a	
			Negative Process	Positive Outcome
Using a treatment manual prevents individual case formulation with patients.	2.17	1.068	.675	
Using a treatment manual undermines clinical creativity and artistry.	2.67	1.184	.769	
Treatment manuals are appropriate for research patients but not real-world patients.	2.20	1.058	.805	
Manuals force a therapist to conform to one theoretical orientation.	2.95	1.071	.530	
Manuals make therapists more like technicians.	2.50	1.172	.777	
Using treatment manuals detract from the authenticity and sincerity of the therapeutic interaction.	2.30	1.188	.735	
Treatment manuals over emphasize therapeutic techniques.	2.57	1.117	.529	
Using treatment manuals helps therapists to evaluate and improve their clinical techniques.	3.70	.900		.622
Treatment manuals help clinicians to utilize only interventions which have been demonstrated to be effective.	3.24	1.069		.573
Treatment manuals ignore the unique contributions of individual clinicians.	2.69	1.223	.891	
Manuals force unique individual clients into arbitrary categories.	2.77	1.103	.788	
Using a treatment manual keeps a therapist from using his or her intuition in responding to a client.	2.31	1.093	.675	
Using a treatment manual makes a therapist think more about sticking to the manual than about the needs of individual clients.	2.77	1.165	.741	
Treatment manuals, if used appropriately, will enhance the average outcomes of clients treated in psychotherapy.	3.78	.955	-.473	.443
If a treatment described in a manual has been shown scientifically to be effective, then a therapist is ethically obligated to use that treatment as opposed to one that has not been studied.	3.05	1.178		.382

Note. 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree

^a Factor loadings less than .30 are excluded from this table.

Therefore, we conducted an exploratory factor analysis using principle axis factoring and a non-orthogonal rotation. This resulted in a three-factor solution based on eigenvalues greater than 1, accounting for 54.53% of the variance. One of the factors was indicated by the loading of only one question, which had a cross-loading greater than 0.30 on one other factor. Considering that this third factor only accounted for 3% of the variance, we ran an additional exploratory factor analysis that was restricted to a two-factor solution.

The second exploratory factor analysis reported that the two factors accounted for 51.2% of the variance in the 17 items regarding attitudes toward utilizing psychotherapy treatment manuals. These results resemble those of Addis and Krasnow [3] regarding the specific interpretation of the two factors: Factor 1 being *Negative Process* and Factor 2 being *Positive Outcome*.

D. Predictors of Attitudes toward Treatment Manuals

Similar to the original study, we divided the analyses regarding predictors of attitudes into two categories:

characteristics of graduate students and content items. For example, we predicted that primary theoretical orientation would influence graduate students' attitudes toward manualized treatments. More specifically, those students who were more behaviorally based would have more positive attitudes toward treatment manuals, and those students who were more process based would have more negative attitudes toward treatment manuals. We also hypothesized that the setting where the students were gaining experience in clinical practice would influence their attitudes toward manualized treatments. Based on the original article by Addis and Krasnow [3], we predicted that those students who were trained in a clinic/agency setting would have more positive attitudes toward manualized treatments, and those students who were learning in private practice and college counseling settings would have more negative attitudes toward manualized treatments. Thus, we ran analyses to test these hypotheses.

Those graduate students who identified their primary theoretic orientation as cognitive behavioral therapy scored

significantly higher on the Positive Outcome attitudes ($M = 21.6, SD = 4.24$) compared to the graduate students who identified their primary theoretical orientation as psychodynamic ($M = 16.15, SD = 5.18$), $t(60) = 4.39, p < 0.001$. In addition, the graduate students who identified psychodynamic as their primary theoretical orientation scored significantly higher on the Negative Process attitudes ($M = 35.65, SD = 9.05$) compared to those who identify cognitive behavioral therapy as their primary theoretical orientation ($M = 22.36, SD = 6.89$), $t(62) = -6.47, p < 0.001$. To compare clinical experience setting, we recoded the responses into three categories: (a) college/university academic, college/university counseling, and primary/secondary school; (b) private practice, corrections, hospital, and VA; (c) clinic/agency. A one-way analysis of variance comparing these three variables showed that there were no significant differences between any of the recoded setting categories.

We conducted a second analysis on specific content items

and attitudes toward treatment manuals. The mean ratings and correlations to the two attitudes toward treatment manuals for each of the seven content items are shown in Table IV. For example, graduate students who thought that psychotherapy treatment manuals represent a comprehensive theory of change were more likely to rate Positive Outcome items higher ($r = 0.300, p = 0.002$) and Negative Process items lower ($r = -.335, p = 0.001$). Similarly, graduate students who thought that psychotherapy treatment manuals represent a comprehensive theory of psychopathology were more likely to rate Positive Outcome items higher ($r = .332, p = .001$) and Negative Process items lower ($r = -.228, p = .022$). In addition, graduate students who thought psychotherapy treatment manuals provide a thorough discussion of the relationship between theory and treatment were also more likely to rate Positive Outcome items higher ($r = .304, p = .002$) and Negative Process items lower ($r = -.348, p < .001$).

TABLE IV
 CHARACTERISTICS OF MANUALS AS PREDICTORS OF ATTITUDES

How well does each item characterize a treatment manual?	M	SD	r	
			Negative Process	Positive Outcome
Descriptions of specific therapeutic techniques	3.19	.793	-.05	.159
An emphasis on the importance of the therapeutic relationship	1.94	.781	-.262*	.193
Presentation of a comprehensive theory of change	2.57	.850	-.335**	.300*
Presentation of a comprehensive theory of psychopathology	2.33	.860	-.228*	.332**
A thorough discussion of the relationship between theory and treatment	2.56	.815	-.348**	.304*
A "cookbook" of therapeutic ideas	2.45	.908	.357**	-.173
An emphasis on individual case conceptualization	2.02	.796	-.258*	.352**

Note. 1 = not at all characteristic, 2 = somewhat characteristic, 3 = characteristic, 4 = very characteristic
 * $p \leq .05$ ** $p \leq .001$

Lastly, we asked the graduate students which disorders were most appropriate for being treated using psychotherapy treatment manuals. Anxiety disorders, major depression, and child behavior problems were rated the most appropriate, whereas schizophrenia and marital problems were rated the least appropriate to be treatment using psychotherapy treatment manuals, as seen in Table V.

TABLE V
 APPROPRIATENESS OF USING TREATMENT MANUALS FOR VARIOUS DISORDERS

Disorder	M	SD
Anxiety disorder	4.37	.820
Major depression	4.06	.963
Child behavior problems	4.04	1.009
Substance abuse	3.87	.902
Bipolar disorder	3.35	1.072
Personality disorders	3.30	1.229
Adjustment disorder	3.10	1.136
Marital problems	3.06	.993
Schizophrenia	3.05	1.161

Note. Graduate students rated their agreement on a scale ranging from 1 (not appropriate at all) to 5 (very appropriate).

IV. DISCUSSION

The present results are important for the future of the field of clinical psychology, both alone and compared to the results

of the original study done by Addis and Krasnow [3]. The results suggest that the majority of the clinical psychology graduate students surveyed had heard of treatment manuals (92.1%) and had a reasonably clear to very clear idea of what a treatment manual is (80.7%). This is similar to the practicing clinical psychologists surveyed in the original study, with approximately 77% having heard of treatment manuals and approximately 63% having had a reasonably to very clear idea of what a treatment manual is, although the graduate students' percentages were higher. In addition, the results show that the majority of the graduate students put a fair amount of thought to a lot of thought into the use of treatment manuals in clinical practice. Approximately 42% gave a fair amount of thought to treatment manuals, and approximately 26% gave it a lot of thought. This is different compared to the practicing clinical psychologists surveyed in the original study, where approximately 12% gave a fair amount of thought to the use of treatment manuals in clinical practice and 8% gave a lot of thought. These comparisons of experience of clinical psychology graduate students and practicing clinical psychologists with treatment manuals show a shift in importance and probability of utilizing treatment manuals in clinical practice.

The graduate students in the current study and the practicing psychologists in the original study were both asked how strong their attitudes were toward manualized

psychotherapy treatment manuals. Their responses differed in that the majority of the graduate students surveyed reported somewhat strong (34.2%) to strong attitudes (36%), whereas the majority of practicing psychologists reported not at all strong (35%) to somewhat strong attitudes (41%). These findings indicate that not only did the amount of thought put into utilizing treatment manuals shift from the original study to the current study, but also the strength of the attitudes toward treatment manuals.

The results also indicate similar responses from clinical psychology graduate students in the current study and practicing clinical psychologists in the original study regarding identified theoretical orientation and specific attitudes toward psychotherapy treatment manuals. In both studies, the individuals who identified as practicing from a cognitive behavioral framework showed significantly higher positive attitudes toward treatment manuals compared to individuals who identified as practicing from a psychodynamic framework. In addition, psychodynamic individuals showed significantly higher negative attitudes toward treatment manuals compared to cognitive behavioral individuals. This likely indicates the stability of the theory and interventions behind both cognitive behavioral therapy and psychodynamic framework.

As mentioned earlier, we did not find any significant differences between clinical experience settings regarding specific attitudes toward treatment manuals. This is different from the original study done with practicing clinical psychologists, which indicated that psychologists in academic settings had more positive attitudes toward treatment manuals and those in private practice had more negative attitudes. This change from the original study to the current study may show a shift in treatment philosophies in varying clinical settings.

V. LIMITATIONS

Limitations to this study include the inability to evaluate the representativeness of our sample of clinical psychology graduate students. This limits the generalizability of our results. Another limitation is the small sample size. It is easy to see how the size of the sample may affect the results of the study when comparing the sample size to how many clinical psychology graduate students there are currently in the country. Future research opportunities may include gathering a larger sample size. It also may be important to investigate dissemination techniques that are effective in spreading accurate, research-based knowledge to those in the clinical psychology field regarding utilizing treatment manuals.

VI. CONCLUSION

Overall, these results provide evidence for an obvious shift in how treatment manuals are viewed and used. It appears that the use of treatment manuals is being thought about more and individuals are developing stronger opinions about treatment manuals. This may be due to graduate programs implementing training opportunities using treatment manuals and incorporating the foundation and knowledge of treatment manuals into classes. It is important that knowledge regarding

both the advantages and disadvantages of utilizing treatment manuals for certain disorders is disseminated to and critically absorbed by those in the field of clinical psychology so that individual clinicians can make informed decisions about using treatment manuals.

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