The Influence of Feedback on Implicit Bias in a Sample of Primarily Caucasian Women Counselors-in-Training

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THE INFLUENCE OF FEEDBACK ON IMPLICIT BIAS IN A SAMPLE OF PRIMARILY CAUCASIAN WOMEN COUNSELORS-IN-TRAINING

by

Branson L. Boykins

A dissertation submitted to the Graduate College
in partial fulfillment of the requirements
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THE INFLUENCE OF FEEDBACK ON IMPLICIT BIAS IN A SAMPLE OF PRIMARILY CAUCASIAN WOMEN COUNSELORS-IN-TRAINING

Branson L. Boykins, Ph.D.

Western Michigan University, 2016

The purpose of this study was to examine whether bogus cultural feedback influenced the presence of implicit racial bias in the clinical judgment of counselors-in-training. Participants were 193 master’s-level counselors-in-training, in which the majority were Caucasian women (57%). Three hypotheses guided the study. The first hypothesis focused on the influence of priming positive and negative feedback about cultural attitudes on a clinical case, regardless of the race or clarity of the case. The second and third hypotheses both focused on racial bias by examining the interaction between type of feedback, race, and ambiguity of diagnosis on participants’ clinical impressions of a client. Participants’ received bogus feedback (i.e., positive, negative, no feedback) on their completion of the Quick Discrimination Index (Ponterotto et al., 2002). Participants were then randomly assigned a clinical case that differed in race (African American or Caucasian) and diagnostic clarity (clear or ambiguous). Thus, a 3 (type of feedback) x 2 (race of vignette) x 2 (clarity of vignette) between subjects experimental design was used. After viewing one of the 12 vignettes, participants’ clinical judgment was assessed with six questions created for this study. The trainees were asked to rate a specific vignette on the following areas: (a) severity, (b) urgency of care, (c) motivation towards therapy,
(d) likelihood to remain in counseling, and (e) expected progress. These questions served as the dependent variables. All three hypotheses were tested with a one-way MANOVA on the linear composite of the five dependent variables, with feedback, race, and clarity of the vignettes as factors. None of the hypotheses were supported, but a main effect for feedback was found. A discriminant descriptive analysis, as a follow-up to the MANOVA, was statistically significant, with severity, urgency of care, and likelihood to remain in counseling contributing most to the variate; this variate was labeled in Need of Mental Health Care. Participants who received positive feedback rated their vignettes less severe and in need of less mental health care than participants who received negative feedback.
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I would like to first acknowledge God for all of His blessings and my family, who has been extremely supportive and helpful throughout my doctoral program. I would like to give special acknowledgment to my mother, father, and wife, who have given me so much love and support throughout the years. You helped me realize and accomplish this dream.

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Branson L. Boykins
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CHAPTER I

INTRODUCTION

Preparing future counselors and psychologists to provide counseling services to the public is a primary job of counselor training programs (Brown & Lent, 2008). These programs utilize a scientist-practitioner model to train graduate students in the best evidenced-based practices available. Their ultimate goal is to teach counselors-in-training how to develop the clinical judgment needed to effectively diagnose, treat, and assess future clients (Brown & Lent, 2008; Dawes, 1989). Prior to the 1980s, the training and eventual delivery of services from many counselor training programs was based on a European cultural perspective (Katz, 1985; Sue et al., 1982). This training philosophy emphasized Western theories, which had an individualistic focus and was applied to all clients without questioning the generalizability to racial minorities (Katz, 1985). The ineffectiveness of this training philosophy, however, began to become clear due to changing racial demographics in the United States (Katz, 1985; Sue, 1997). Specifically, as the number of racial/ethnic minorities within the population began to increase, so did the number of racial/ethnic minorities who sought counseling services. Counselors began seeing more diverse clients who self-identified as African American, Latino(a), and Asian American, and the need for ethical, culturally relevant counseling became more apparent (Abreu, Chung, & Atkinson, 2000; Sue, 1991; Sue et al., 1982).

The increase in the number of racially diverse clients who sought counseling, however, did not equate to more ethical practice (Katz, 1985; Sue et al., 1982). Research found that the traditional European training philosophy resulted in an increase of pathologizing of non-European clients (Banks & McGee-Banks, 2004; Katz, 1985; Sue, Arredondo, & McDavis,
White counselors tended to note a higher number of clinical symptoms and diagnose African American clients more severely in comparison to Caucasian clients. Thus, a favorable diagnostic bias was given towards Caucasian clients in comparison to African American clients (Banks, Berenson, & Carkhuff, 1967; Casas, Ponterotto, & Gutierrez, 1986; Lopez, 1989; Roenthal, 2004). These findings point to one of the problems and continued questions in counselor training: Are counselors being adequately trained to provide counseling services to racial/ethnic minorities (Banks et al., 1967; Casas et al., 1986)?

**Multicultural Training**

Human beings are by nature flawed. This flawed nature is frequently evidenced in a person’s perceptions, attributions, and decision-making processes and judgments (Dawes, 1989). Numerous research studies (Dawes, 1989; Dawes, Faust, & Meehl, 1989; Lopez, 1989; Spengler et al., 1995; Ægisdóttir et al., 2006) have shown individuals often rely on intuition, generalizations, and shortcuts to interpret and draw conclusions about events, themselves, and others. Such over reliance on these cognitive sets may result in systematic errors and biases about others and oneself (Dawes, 1989; Lopez, 1989). Counselors are not immune to the use of such cognitive sets, and concomitant errors and biases (Duncan, 2005; Lopez, 1989). For this reason, counseling training programs have attempted to resolve the problem of counselor bias. However, it was not until the 1950s and 1960s that the counseling field began to specifically address biases in the assessment and treatment of culturally diverse people (Abreu, Chung, & Atkinson, 2000; Jackson, 1995; Sue et al., 1982).

During the late 1970s and early 1980s, multicultural psychology was named the “fourth force” (Pedersen, 1990) in counseling to recognize the importance of addressing cultural issues in the assessment and treatment process. In particular, scholars (e.g., Sue, Arredondo, &
McDavis, 1992; Sue et al., 1982) who highlighted the importance of culturally relevant treatment paradigms also began to urge the American Psychological Association (APA) and professional psychology training programs to integrate cultural competency into all aspects of training, including course content and supervision, as well as in using various psychological and assessment measures. As a result, APA (1986, 1996a) included mandates in their handbook and provided guidelines for the accreditation of training programs, making multicultural training a requirement. Thus, many professional psychology programs, especially in counseling psychology, began *multicultural training*. This term is defined as training to improve (a) cross-cultural communication skills, (b) awareness of one’s attitudes toward ethnic minorities, and (c) knowledge about minority populations and diverse cultures (Abreu et al., 2000; D’Andrea, Daniels, & Heck, 1991; Sue et al., 1992). Through this training, these programs are expected to establish a systematic process to improve counselors’ clinical decision-making and the implementation of effective interventions when working with ethnic/racial minority and other oppressed populations (e.g., women, racial/ethnic minorities, LGBT).

A primary premise of this type of training is that counselors-in-training will improve in the areas of multicultural knowledge, skills, and attitudes, while also decreasing their levels of prejudice, stereotypes, and discrimination in clinical practice (Abreu et al., 2000; Castilo et al., 2007; D’Andrea, Daniels, & Heck, 1991; Malott, 2010; Sue et al., 1992). As a result, most counseling psychology programs by the end of the 20th century have offered at least one course in multicultural counseling (Abreu et al., 2000; Hills & Strozier, 1992). Some counseling psychology programs have gone beyond a single course by infusing multicultural training throughout the entire program (Abreu et al., 2000; D’Andrea et al., 1991; Sue, 1996). Despite the presence of at least a single course on multicultural training in most counseling psychology
programs, some scholars contend that large-scale bias in clinical practice continues to exist (Boysen, 2009; Boysen & Vogel, 2008; Castillo et al., 2007).

Boysen (2009) contends that all individuals, including counselors, have received societal messages and experienced pressure to be without prejudice and to refrain from discrimination. These societal messages, however, have also contributed to the evolution of racial and other types of cultural bias from explicit and overt, to implicit and covert. Because implicit forms of bias are difficult to identify, mainstream society continues to focus on the traditional (overt) form of bias and has yet to fully address or examine covert types of discrimination and bias with the same level of attention (Boysen, 2009). This problem is also reflected in professional psychology graduate education in the treatment of diverse clients and in psychological research (Boysen, 2009). As a result, the profession now needs to update multicultural training to emphasize contemporary forms of bias, including the implicit biases that may be exhibited by counselors when assessing and treating diverse clients.

Implicit Bias

Implicit bias is a contemporary form of prejudice and discrimination that has been identified in the literature over the past two decades (Boysen & Vogel, 2008; Greenwald & Banaji, 1995). These biases are subtle and unconscious, and result in undetected actions or judgments (Greenwald & Banaji, 1995; Greenwald, McGhee, & Schwartz, 1998). For example, an implicit bias would be exhibited in a store manager who unconsciously hires more Caucasians over African American, despite both applicants having the same qualifications. In regards to counseling, many Caucasians counselors may have implicit biases that result in a tendency for them to give more severe diagnoses to African American clients in comparison to Caucasian clients with the same presenting symptoms (Pavkov et al., 1989). Caucasian counselors may
have such a biased attitudes, despite successfully completing multicultural training courses or
programs. This condition is most likely to occur when the training is based on addressing overt
biases and resolving prejudices or discrimination that occur in overt ways (Abreu, 1999; Boysen,
2009). Unless special attention is given to addressing implicit biases, this form of bias may go
undetected because a person’s response is subtle, unconscious, and frequently occurring under
ambiguous circumstances (Abreu, 1999; Boysen & Vogel, 2008; Dovidio, 2001; Dovidio &
Gaertner, 2005). Thus, on completion of their training, counselors may believe they are
“multiculturally” competent, but may in reality be unconsciously providing unethical treatment
to diverse clients as a result of having implicit biases.

As noted earlier, implicit bias in counselors-in-training may be maintained by the focus
on overt bias in multicultural training. However, such bias may also be maintained through the
reliance of self-report measures for assessing multicultural competence (Boysen, 2009; Boysen
& Vogel, 2008; Castillo, Brossart, Reyes, Conoley, & Phoummarath, 2007). Boysen and Vogel
(2008) found that a majority of Caucasian female counselors who were found to show implicit
biases in counseling still rated themselves via self-report high in multicultural counseling
competency (Boysen & Vogel, 2008). Therefore, reliance on such self-report measures may not
give an accurate account of counselors’ actual level of multicultural competence. In essence,
counselors’ rating of their own level of competency is not equivalent to actual feedback on their
ability to work with culturally diverse clients. When counselors receive supervision, supervisors
do not solely rely on the trainees’ self-evaluation of their performance. Supervisors instead are
expected to provide, observe, and evaluate the counselor-in-training based on the standards in the
field. Supervisors give this feedback in oral and written form to trainees on their level of clinical
competency while also allowing trainees to evaluate themselves (Bernstein & Lecomte, 1979;
Brown & Lent, 2008; Daniels & Larson, 2001). However, little is reported in the counseling literature on supervisors providing feedback to trainees on their level of multicultural competency, including the presence of possible bias (Cook & Helm, 1988). Furthermore, there appears to be no objective measure of multicultural counseling skills that can be used to assess the presence and extent of implicit bias in counselor’s clinical decision-making. Even if the bias is detected, no published interventions have been reported to assist counselors in minimizing such biases with diverse clients. As noted earlier, the current status of the counseling field is to address multicultural competence through courses (usually one) with minimal or no attention given to implicit bias. The lack of literature regarding supervisors providing feedback about multicultural issues, combined with the lack of interventions and assessment regarding implicit biases in counselors-in-training, was the impetus for the current study.

**Current Focus**

Currently, multicultural training primarily focuses on minimizing counselors-in-training from acting on overt biases and reducing prejudices (Boysen, 2009). Only within the last 20 years has research begun to uncover implicit biases that differ from overt traditional biases (Abreu, 1999; Boysen & Vogel, 2008; Greenwald & Banaji, 1995). Thus, there is a gap in the multicultural counseling literature, as few studies have examined the influence of implicit bias in the training of counselors. For the studies (Boysen & Vogel, 2008; Castillo et al., 2007) that have explored implicit bias in counseling, only one multicultural training intervention was identified that examined a possible intervention to use with counselors-in-training to understand, identify, and address implicit bias. Moreover, there has been a tendency in multicultural counseling training to rely on self-report measures. This practice has been problematic in that often Caucasian counselors-in-training tends to rate themselves high on multicultural skills
(Boysen & Vogel, 2008; Castillo et al., 2007). Also, no research has been found in which other methods of multicultural assessments (e.g., supervisor feedback) have been used in the evaluation of the cultural competence of Caucasian trainees. Therefore, the purpose of this study was to examine whether providing different types of feedback about cultural attitudes to a majority of Caucasian counselors-in-training would result in either (a) an increase in likelihood to use implicit biases in clinical judgment or (b) a decrease in the likelihood to use implicit biases in clinical judgment. Based on the designs of prior research (Dovidio & Gaertner, 2000; Merluzzi and Merluzzi, 1978; Rosenthal, 2004), it was hoped that varying the race of a case and the clarity of a diagnosis would create the optimal condition to elicit implicit bias.

As a result, three research questions were established to guide this study:

1. Was the clinical judgment of counselors-in-training affected based on type of feedback (none, positive, or negative) received?

2. Did the clinical judgment of counselors-in-training vary based on both feedback (none, positive or negative) received, and the race (African American or Caucasian) of the client?

3. Did the clinical judgment of counselors-in-training vary based on the type of feedback (none, positive or negative), the race (African American or Caucasian) of the client, and the clarity (clear or ambiguous) of the client’s presenting problem?
CHAPTER II

LITERATURE REVIEW

The purpose of this study was to expand the literature on multicultural counseling training by examining how cultural feedback influenced the presence of implicit bias in the clinical judgment of counselors-in-training. Duncan (2005) argued that automatically gaining knowledge and skills might not equate to the ability to work effectively with racial/ethnic minority clients, especially if the clinician holds biases. One such type of bias that may influence effectiveness when working with racial minority clients is implicit bias. To begin addressing ways to increase Caucasian counselors’ effectiveness in working with racial minority clients, the current study examined the potential influence feedback might have on counselors’ responses to a clinical case provided under the conditions that implicit bias is likely to occur. Thus, the first section of the following literature review will address the construct of bias. Next, the focus of the literature review will be on implicit bias. In the third section a specific form of implicit bias, aversive racism, will be examined. The construct feedback and its use in the counseling setting will be examined in the fourth section. In the final section of the literature review, the current study will be summarized, including its purpose, methodological concerns, research questions, and hypothesis.

Bias

A bias is a prejudgment or prejudice that may be carried out in some action (Lopez, 1989). By virtue of human nature, all individuals hold biases about various objects and individuals. Bias becomes problematic when it is more than attitudinal but behavioral, resulting in an impact on others and differential or preferential treatment (Lopez, 1989). Thus, bias in
counseling that is significant enough to cause preferential or differential treatment is the focus of this review and research.

For counselors, biases may be seen in their clinical judgment of clients; counselors may show differential bias to clients, a positive bias to some and a negative bias to others. These biases are exhibited when counselors systematically underestimate or overestimate the presence of problems, their severity, and the approach to treatment for specific clients (Lopez, 1989; Spengler et al., 1995). Like all individuals, counselor biases are based on their focused attention on one or more characteristics that are not salient to the psychological functioning of a specific group of individuals. The unwarranted focus overshadows this group of clients’ symptomatology, which is usually attended to in clients who do not have the same characteristics, but do show the same symptomatology. For example, favorable bias may be demonstrated in one racial group (Caucasian), while another (African American) who has the same symptomatology is not shown the same bias and could be viewed either benignly or negatively.

Lopez (1989) notes that bias may occur regardless of choice or the conscious awareness of prejudicial attitudes. Clinicians may deny holding such attitudes, but still demonstrate otherwise as a result of an error in clinical judgment and decision-making. Errors in decision-making are considered to occur due to the use of shortcuts and generalizations called cognitive heuristics (Kahneman & Tversky, 1973). Heuristics are helpful strategies to synthesis data when attempting to manage large quantities of information and possibly make a decision. However, due to using these shortcuts, errors may result that may lead to bias. One such example is when clinicians unconsciously focus on a salient characteristic (e.g., gender), which impairs their ability to make accurate decisions (e.g., schizophrenia versus bipolar) and generalize to others.
(Lopez, 1989). For the purpose of this literature review, counselor bias is examined in the context of racial biases regarding African Americans and Caucasians. African Americans have increasingly sought counseling services while Caucasian counselors and trainees have shown favoritism in treatment, diagnosis, and recommendations to Caucasian clients (Abreu et al., 2000; Boysen, 2009; Sue, 1991. For this reason, the current study will continue to build on the literature by examining how racial biases occur and their prevalence between Caucasian and African American clients.

Counselor Bias with African American and Caucasian Clients

A PsycINFO search on the term counselor bias revealed 657 writings. To narrow the focus, the search was modified with the additional keywords African American, Black, and Caucasian to locate studies that examined where favoritism or bias in clinical treatment was demonstrated between African American and Caucasian clients. The second PsycINFO search revealed 27 writings. The content of the writings fell in the following areas: counseling outcomes, assessment, multicultural competencies, cross-cultural counseling relationships, intake judgments, and school-based practices. For the purpose of this literature review, four empirical studies were selected for review that focused on bias demonstrated by counselors and counselors-in-training in their clinical judgment, diagnoses, and decision-making between African American and Caucasian clients.

Merluzzi and Merluzzi (1978) examined racial bias by clinicians in training when presented with clinical case summaries. Participants were 86 Caucasian men and women graduate students in counseling training programs at six universities (no other identifying demographic information was given). Participants were given eight case summaries (client information such as home environment, gender, SES, age, and presenting problem) to review,
but only four specific case summaries were used in the analysis. These four case summaries were identical in content except for the race of the client. The client’s race was designated as either African American, or Caucasian, or not given. Participants were asked to rate clients on an 11-item rating scale that assessed four areas: (a) client’s orientation to counseling, (b) counseling readiness, (c) environmental effects on the client, and (d) predicted outcome. Merluzzi and Merluzzi (1978) found that case summaries labeled African American were rated significantly more positive in comparison to those labeled Caucasian, or had no-label. Merluzzi and Merluzzi (1978) concluded that counselors-in-training overcompensated their ratings of African American clients to avoid being seen as biased. The strength of this study is in uncovering the potential of counselors-in-training to be aware of their bias and to compensate for it. However, overcompensation can result in biased assessment and treatment as well.

Pavkov et al. (1989) explored racial biases in psychiatric diagnoses of 313 case files at four Chicago mental hospitals. The majority of case files were male, with 63% of the patients between 18 and 34 years old. The ratio between men and women was 6:4. The results were that African American clients were more likely to be evaluated as having more severe symptomatology than Caucasian clients (Pavkov et al., 1989). Lower socioeconomic African American clients also disproportionately received a diagnosis of schizophrenia in comparison to Caucasian patients. However, Pavkov et al. (1989) noted a limitation of this study was that most of the patients were of lower SES (only 21 patients of the 313 had incomes of more than 1,000 per month), limiting the generalizability to other populations. These findings are important because actual practitioners gave these diagnoses to real clients, illustrating the manifestation and occurrence of bias in clinical practice.
In another study, Tomlinson-Clarke and Cheatham (1993) used archival client data at a predominately White university counseling center to study bias in clinical intake judgments. Clients were 82 female clients (41 African American and 41 Caucasians). The African American clients had been seen for counseling services during a three-year academic period and ranged in age from 17 to 38 years ($M = 19.7$). Clinical data of Caucasian clients were selected to match each African American client in demographics and pretreatment variables (i.e., client’s perception of the reason seeking counseling and client’s estimation of the severity of presenting concern). Caucasian clients ranged in age from 18 to 38 years of age, ($M = 20.6$). Clients had been seen by 1 of 13 female counselors (9 Caucasian and 4 African American) on staff at the university counseling center. The educational level and clinical experience of the 13 female counselors differed as 5 (2 African American and 3 Caucasian) counselors were advanced doctoral students, and the remaining counselors were practicing psychologists. Clients had been randomly assigned to counselors through the counseling center’s rotating intake system. Counselors’ intake judgments were assessed based on (a) clinical disposition, (b) severity of diagnostic rating, (c) need for psychological treatment, and (d) predicted number of sessions. Chi-square analysis did not reveal any statistically significant differences in intake judgment due to the race of the client. Tomlinson-Clarke and Cheatham (1993) noted limitations from their study: (a) information about the reviewers used to pair the African American and Caucasian clients was not present, and (b) male clients and counselors were not included in the study limiting the generalizability of their study. One challenge of this study was the difficulty in studying racial/ethnic bias in that the manipulation of race may not be sufficient to test bias in counselors.
Rosenthall (2004) examined bias in 98 Caucasian rehabilitation counselors who were asked to rate one of two client case materials, which differed in a photo of the client. The photo depicted the client as either an African American or a Caucasian client. Participants were asked to rate the client based on five components: (a) general evaluation, (b) pathology in conduct, (c) pathology in substance abuse, (d) educational potential, and (e) vocational potential. Participants rated clients at two different time periods, the first after reviewing minimal preliminary information, typically available after an initial intake: (a) a referral letter from detoxification unit, (b) an involuntary admission form from the detoxification unit, (c) an arrest report with a “mug shot” of the client, (d) an application of rehabilitation services, and (e) an intake interview script. Participants then rated the participant a second time after reviewing subsequent information, typically gathered later in the rehabilitation process: (a) an alcohol and drug assessment, (b) documentation of the client’s participation in treatment, (c) an arrest report with a “mug shot,” (d) a letter explaining the client’s military discharge, (e) a letter from the client’s most recent employer, and (f) a vocational evaluation report.

Findings from Rosenthall (2004) indicated the presence of bias in the clinical judgment of the case materials. Counselors had a more negative clinical impression of the African American client than of the Caucasian. Specifically, participants gave lower scores to the African American clients in comparison to Caucasian clients, meaning negative evaluations and higher likelihood of psychopathology. Strengths of this study were the straightforward design and the two-evaluation point system based on the varying amount of information given. Rosenthall (2004) found that providing subsequent client information did not change the presence of racial bias. Rosenthall (2004), however, noted that a limitation of this study was that the pictures were not of rehabilitation clients, but were those of two DWI lawbreakers referred.
for rehabilitation counseling services. Though the two pictures were deemed similar in appearance, the pictures may have elicited stereotypical views about criminals instead of a typical rehabilitation client, which may have influenced clinical judgment.

Overall, the four studies reviewed illustrate mixed results in understanding the racial bias of Caucasian counselors to African American clients. There are several explanations for these findings. One, all Caucasian counselors may not exhibit racial bias toward an African American client. Two, the presence of bias may vary as a result of the design of the study and in the way that racial/ethnic bias is tested. Finally, some scholars (e.g., Aberson & Ettlin, 2004; Boysen, 2009; Greenwald & Banaji, 1995; Dovidio, 2001; Dovidio & Gaertner, 2000) contend that racial bias has changed, and thus, the study of its presence should be done with a contemporary lens. Specifically, as a result of the pressure to not exhibit traditional overt bias, there has been a shift wherein bias is now best understood and subsequently researched in implicit forms (Boysen, 2008; Castillo et al., 2007; Dovidio, 2001).

Implicit Bias

Implicit cognitions are the presence of past beliefs, performances, and experiences that are not remembered in a usual or traditional sense (Greenwald & Banaji, 1995; Greenwald & Krieger, 2006). Implicit attitudes are unidentified and unknown traces of past experiences that have left favorable or unfavorable feelings toward social objects. Implicit attitudes and cognitions differ from explicit cognitions and attitudes, in that the former are not readily retrievable or accessible. The absence of the awareness of implicit attitudes allows for the presence of misattribution and errors, thus creating an implicit bias (Greenwald & Banaji, 1995). Individuals who hold an implicit attitude towards a certain group may be biased in rating an individual of the group more or less favorably in comparison to others. Clinicians, for example,
may be unaware of their implicit attitudes towards African American clients and inadvertently
draw on these attitudes when evaluating the severity of symptomatology. The difference in a
rating between racial groups, when all other characteristics would be equal, is an example of an
implicit bias: an attitudinal state, unknown to the decision maker as a result of an automatic
response underlying the process (Greenwald & Banaji, 1995; Greenwald, Mchee, & Schwartz,
1998). Due to the unconscious and subtle nature of implicit bias, ways of accessing and
measuring their presence are addressed next.

**Measuring implicit attitudes and bias.** Greenwald and Banaji (1995) indicate that due
to the hidden nature of implicit bias, indirect measures are better suited to measure such bias.
The goal of using an indirect measure is to get past an individual’s conscious process in order to
access the automatic “implicit” attitudes that are difficult to control. A number of methods have
been used to induce or measure implicit bias: (a) computerized measures, such as the Implicit
Association Test (IAT; Greenwald et al., 1998), (b) paper and pencil measures, such as the
manual adaptation of the IAT (Lowery et al., 2001), (c) physiological measures (e.g.,
cardiovascular responses, EMG, or fMRI; Gaertner & Dovidio, 1977), or (d) experimental
manipulation (Dovidio & Gaertner, 2000; Frey & Gaertner, 1986). However, the most common
method of accessing an implicit cognition and attitude with counselors and trainees has been
done using the IAT (Boysen, 2009; Greenwald et al., 1998; Greenwald, 2010).

The IAT was designed to measure implicit attitudes by examining how quickly a person
can associate concepts of “good” or “bad” to various themes or subjects (Greenwald et al., 1998).
The speed is believed to reflect the automaticity of the evaluation process. For example, an
implicit attitude is measured based on the amount of time individuals take to complete the
categorization of Caucasian and African American faces either as good or bad, depending on the
instructions given. Some individuals may be asked to start by categorizing all African American faces as good and Caucasian faces as bad. Then the categorization process is reversed: African American faces as bad and Caucasian faces as good. Implicit bias is thought to occur when the individuals show a considerable difference in the time to complete the task under the two conditions. For example, quicker reaction times with Caucasian faces listed as good would indicate an individual has an implicit attitude towards Caucasians as good and African Americans as bad (Greenwald et al., 1998). The next section examines studies that have used measures such as the IAT to assess racial/ethnic implicit bias in the field of counseling.

Counseling research on implicit bias. To examine the presence of implicit bias in counseling, a PsycINFO search revealed 30 writings (21 scholarly journals, 6 books, and 3 dissertations/theses) using the keywords implicit bias and counseling. Most were empirical studies ($n = 13$; 11 quantitative). The content of the writings consisted of (a) stereotypical attitudes, (b) psychotherapy, (c) counselor bias, (d) sex role attitudes, and (e) psychological assessments. For the purposes of this literature review, writings reviewed were those in which the focus was on examining racial implicit biases in clinical decision making demonstrated by counselors or counselors-in-training. Five empirical studies were found that matched this criterion.

Abreu (1999) examined whether automatic biases could be found in graduate mental health students’ clinical impression of cases. Participants were 60 clinicians (38 advanced graduate clinical/counseling students, 7 Ph.D. licensed therapists, 8 master’s-level therapists, and 7 pre-doctoral psychology interns) with the majority identifying as Caucasian or White ($n = 46, 77\%$) and women ($n = 38, 63\%$). Participants were assigned to either a high prime condition (80 words ascribed to African Americans [e.g., Negroes, Blacks, blues, rhythm]; 20 control words
[e.g., water, then, completely, people, difference, television]) or a low prime condition (80 control words and 20 words ascribed to African Americans). After priming, participants were given a general impression (a 12-item non-diagnostic scale of positive and negative characteristics) and clinical features (diagnostic impressions related to the clinical vignette) measure to assess clinical judgment.

All participants rated two clinical vignettes, one with the client’s race undisclosed and then the same vignette with the race of the client disclosed as a Black man. Abreu (1999) believed that participants who were exposed to the high-prime condition would respond with negative evaluations of the bogus client regardless of race. Abreu (1999) also examined participants’ desire to not appear prejudiced. If participants changed their rating of the second vignette (race clearly noted) from their initial rating, this change would indicate a desire to not appear prejudiced, but socially appropriate.

Abreu (1999) found that participants exposed to the high-prime condition rated the clinical vignette, regardless of the disclosure of race, more negatively on the hostility-related items than those in the low-prime condition. Participants not only reported more hostility, but also responded in a socially desirable manner when the race of the client was known. Overall, participants changed their scores by lowering ratings of hostility after learning of the client’s race. Abreu (1999) asserted that this change in scoring was a desire to not be seen as biased. However, a noted limitation and possible explanation for the change in ratings was the design of the study, where participants were always given the race of the client after the condition where race was not given. Therefore, the possibility that by rating the clinical case a second time caused the difference in ratings cannot be ruled out. Abreu’s (1999) findings build on the clinical racial bias literature, strengthening the position that bias occurs in unconscious forms.
When these clinicians were primed with words and phrases synonymous with African Americans, they seemed to unconsciously use more hostile and aggressive interpretation of a bogus client’s behavior in comparison to those who were in the low-prime condition.

Castillo et al. (2007) examined whether students in multicultural counseling courses would show a decrease in implicit racial prejudice, and in turn, show an increase in perceived cultural self-awareness, knowledge, and skills in comparison to students currently not enrolled in any multicultural coursework. Participants were 84 counselor education master’s students from two predominately White universities located in southern and western regions of the United States. The majority of the participants were women \((n = 67, 80\%)\) and Caucasian \((n = 65, 77\%)\). Forty students were enrolled in a multicultural counseling course, while the remaining 44 students were enrolled in a counseling foundations course. All participants took a pre- and post-test at the onset and end of the course, respectively. Two measures were used: (a) the Multicultural Counseling Inventory (MCI; Sodowsky, Taffe, Gutkin, & Wise, 1994), a 40-item measure used to assess students’ self-report of multicultural counseling competence based on awareness, knowledge, skills, and relationships; and (b) the Race Implicit Association Test (Race IAT; Greenwald et al., 1998), a measure of implicit bias. The Race IAT consists of 12 morphed facial photos of six African Americans (equal gender) and six Caucasian Americans (equal gender). The Race IAT also consists of 12 pleasant and unpleasant words that serve as attribute dimensions.

Castillo et al. (2007) found that participants in the multicultural counseling course showed improvement in cultural awareness, and a decrease in implicit racial bias evidenced by improved scores on the Race IAT at post-test in comparison to students taking the general counseling course. Thus, participants in the multicultural counseling course showed a decrease
in implicit racial bias. A limitation of the study was the reliance on self-report measures to assess multicultural competency, as Castillo et al., (2007) noted participants may have overemphasized their competency due to the desire to not be seen as biased. A second limitation was the multicultural course was a graduation requirement for participants, and posed as an issue of generalizability to trainees who voluntarily participate in multicultural training. The strength of this study, however, demonstrated that a multicultural course seems to influence racial implicit biases, strengthening support for the need of multicultural coursework in counselor training programs (Castillo et al., 2007).

Boysen and Vogel (2008) examined the connection between multicultural training and implicit bias with three cultural groups: (a) African Americans, (b) lesbian women, and (c) gay men. Counselors-in-training were expected to rate themselves high on multicultural competency (in comparison to prior studies), but these ratings were expected to vary in relation to their level of multicultural training. It was also expected that counselors-in-training would demonstrate an implicit bias despite participants reporting high levels of multicultural competency.

Participants were 105 trainees, with the majority of participants identifying as women (75%), Caucasian (75%), and from various graduate counselor training programs (53 from master’s and doctoral programs in counseling psychology, and 52 from master’s degree programs in rehabilitation counseling, school counseling, and mental health counseling; Boysen & Vogel, 2008). The Cross Cultural Counseling Inventory-Revised (CCCI-R; LaFromboise, Coleman, & Hernandez, 1991) was used to assess multicultural awareness, knowledge, and skills. A pen and paper version of the Implicit Association Test (IAT; Lowery, Hardin, & Sinclair, 2001) was used to measure implicit attitudes toward African Americans, lesbian women, and gay men in comparison to Caucasian heterosexual couples. The pen and paper
version of the IAT consists of pictures of African American and European American faces, with three different possible combinations of couples based on gender: (a) male-female, (b) female-female, and (c) male-male couples. Each page of the IAT contained two columns with pairs of pictures representing each race. Beneath each pair of pictures was a concept word that had either “good” or “bad” valence. Participants were asked to categorize 44 items on a single page listed down the middle by marking a circle under the column to indicate the item as “good” or “bad” (e.g., friend would represent good, tragic would represent bad). Participants were given a time limit of 20 seconds per page. Implicit bias was considered to be present if participants’ reaction times were faster for congruent categorizations (e.g., European American faces associated with words under the good column) than the incongruent categorizations (e.g., African American faces listed under the good column and European American faces listed under the bad column; Boysen & Vogel, 2008).

Results were that most participants in the study reported above average levels of multicultural counseling competence regardless of their academic level in training (Boysen, & Vogel, 2008). Moreover, participants in the sample who reported to be the farthest in training reported the highest scores in multicultural counseling competence. Despite these high levels of self-reported multicultural competence, implicit bias was still found toward African Americans as demonstrated in the IAT scores. The majority of Caucasian female counselors-in-training reported a level of multicultural competency from their training, but still demonstrated an implicit bias towards African Americans. Thus, multicultural training may not always serve as a protective factor for committing implicit bias for Caucasian women. However, the generalizability of these findings are limited by the homogenous sample, and the difficulty of
having a more diverse sample due to the exclusion of a significant number of the participants due to their difficulty in completing the IAT (Boysen & Vogel, 2008).

Katz and Hoyt (2014) examined multiple potential predictors of anti-Black bias among counselors. Three predictors (i.e., implicit bias, multicultural competency, and anti-Black prejudice) were assessed for their influence on the prognosis and therapeutic relationship or bond of a hypothetical African American and Caucasian client. Participants were 173 (82.7% females; 83.3% Caucasian) counselors who were contacted through the listservs of multiple American Psychological Association divisions (Katz & Hoyt, 2014). Participants were first presented with two cases of hypothetical clients; one case depicted a client with features of anxiety, and the other case was of a client with features of depressed mood. All participants rated both cases, with one client labeled African American and the other labeled Caucasian. Participants then rated both cases on prognosis and anticipated therapeutic relationships using the Working Alliance Inventory (WAI; Horvath & Greenberg, 1989). Next, participants filled out the Multicultural Counseling Inventory (MCI; Sodowsky et al., 1994), a measure of multicultural counseling competence, the IAT (Greenwald et al., 1998), and the Self-Reported Clinical Prejudice measure, a self-report measure created specifically for this study, which assessed therapists’ prejudice against African American clients (Katz & Hoyt, 2014).

Katz and Hoyt (2014) found that for therapeutic relationship, each of the three predictors uniquely explained variance between the two cases, with the IAT accounting for more variance ($B = .54$) than the other two self-report measures ($B$ ranged from -.29 to .54). However, for prognosis, only the Self-Reported Clinical Prejudice measure was significant in explaining variance of anti-Black clinical prejudice ($B = .13$). These results indicated that counselors demonstrated bias towards African Americans, and when specifically examining working
alliance, the IAT was a better predictor of racial bias than the two self-report measures. Limitations noted were the validity and reliability of the scores on the newly created Self-Reported Clinical Prejudice measure and the need to further examine the viability of prognosis and working alliance (bond) as constructs in testing differences between African Americans and Caucasians. In summary, Katz and Hoyt (2014) claim that their findings illustrate that self-report and implicit measures served as predictors of bias towards African Americans. Furthermore, counselors’ belief in their multicultural competency does not guarantee that counselors are aware of their clinical prejudices, thus, increasing the need for better assessments.

The current study is focused on the presence of implicit biases in the field of counseling, but the number of studies that have examined implicit bias in counselors is limited. Furthermore, the majority of studies that examined implicit bias contained samples of counselors and trainees that were primarily Caucasian women (Abreu, 1999; Boysen & Vogel, 2008; Castillo et al., 2007; Katz & Hoyt, 2014). Thus, a majority of studies that have examined implicit bias in trainees has been done with Caucasian women. To continue understanding implicit bias, and its examination in other diverse samples, implicit bias was also examined in studies with medical physicians. Physicians’ bias with clients/patients is briefly examined

**Implicit bias research with medical physicians.** The presence of implicit bias has also been found in other helping professions, such as primary health care with physicians. Cooper et al. (2012) examined how physicians’ racial implicit attitudes influenced communication and behaviors between with African American and Caucasian clients. Two specific attitudes were examined as potentially affecting patient care: (a) implicit racial prejudices and (b) stereotype-patient compliance. Implicit racial prejudices were connected to unconscious prejudicial attitudes that would demonstrate racial bias in subsequent behaviors. In contrast, stereotype-
patient compliance refers specifically to bias being demonstrated in medical care by physicians. Where physicians’ behaviors towards compliant patient was believed to affect communication and patient care differently than traditional racial bias. This attitude is believed to be due to physicians’ professional obligation and enhanced patient adherence. An example of this was differences in communication patterns (e.g., hostility), or time spent with patients, that were more prepared, reliable, or obliging (Cooper et al., 2002). Thus, it was hypothesized that compliance stereotypes, would result in two specific communication-related consequences of physicians: (a) less positive emotional tone and perception of patients as non-adherent, and (b) heightened attention to providing medical information. It was also hypothesized that both implicit measures would be associated with physicians receiving more negative ratings of interpersonal care during office visits by African American patients in comparison to Caucasian patients.

Participants were 40 medical physicians, with a majority self-reporting as Caucasian (48%), followed by Asian (30%), and African American (22%; Cooper et al., 2012). The majority of participants were also female (62%). Participants were recruited through a previous clinical trial study to enhance patient-provider communication outcomes on hypertension and depression. Participants were asked to complete the computer version of the Race Implicit Association Test (Race IAT; Greenwald et al., 1998) to measure implicit bias. Medical visits were audio recorded and coded based on (a) length of visit, (b) speech speed, (c) clinical verbal dominance (ratio of clinician to patient statements), and (d) patient centeredness (rapport-building and facilitative behaviors by clinicians). This information was used to assess for the patient compliance and stereotype behavior that is specific to medical care. Clients also took a post-visit survey that assessed interpersonal care and attitudes toward their physician (e.g., “My
doctor likes me,” “I would recommend this physician to a friend,” “I have confidence in this
doctor’s knowledge and skills”; Cooper et al., 2012).

Cooper et al. (2012) found that African American patients whose physicians scored higher (holding more prejudicial attitudes) on the IAT reported receiving lower respect from their physician, rated their physician lower on favorability and confidence, and were less likely to recommend the physician to others in comparison to Caucasian patients. Racial differences were also found in patient compliance and care. Whereas, African American patients whose physicians had higher levels of implicit racial attitudes had longer office visits, received less patient-centered dialogue, and gave lower ratings of interpersonal care compared to White patients. Limitations noted were that the sample of physicians and patients were not selected from the population but randomly selected from a prior study. Thus, physicians and patients only selected from the prior study were able to participate in this study. Also, physicians and patients knew that they were being recorded, which could have influenced both parties’ behaviors. Despite these limitations, this study still demonstrated how physicians demonstrated implicit racial/ethnic bias in a medical context.

Sabin and Greenwald (2012) also explored the connection between pediatricians’ implicit attitudes and treatment recommendations. Participants ($N = 86; 65\%$ female; $82\%$ Caucasian) were asked to provide treatment recommendations for one of four pediatric case vignettes reflective of the diagnoses of asthma, urinary tract infection (UTI), attention deficit hyperactive disorder (ADHD), or general pain. Patients were male in two cases (pain and ADHD) and female in the two other cases (UTI and asthma). Each vignette had two versions, with one version as an African American patient and the other as a Caucasian patient. All vignettes were purposefully designed to contain a degree of clinical uncertainty, as uncertainty is a factor known
to contribute to bias in decision-making (Sabin & Greenwald, 2012). Treatment options were designed to represent best practice versus adequate or good enough care were also provided so that subtle differences in quality could be assessed. Explicit attitudes and stereotypes were assessed through a measure created for the study titled the Explicit Attitudes and Stereotypes Questionnaire, while implicit attitudes were assessed using the Race Implicit Association Test (Race IAT; Greenwald et al., 1998).

The results were that the general pain condition was the only case vignette to yield an association between implicit attitudes and treatment recommendations. Pediatricians who had higher levels of implicit pro-White bias, showed a greater likelihood to prescribe medication for Caucasian patients under the general pain condition in comparison to African American patients. Sabin and Greenwald (2012) concluded that the view and treatment of pain may have an association with racial bias and further research needs to be conducted because the general pain vignette was the only clinical vignette to yield differences in treatment recommendations. A limitation of this study was the lack of generalizability of the findings based on the sampled population. Many participants were removed from the study due to low response rate, and many participants also did not complete all of the required materials. In addition, Sabin and Greenwald (2012) noted they did not check for within group differences among participants’ implicit attitudes on demographic variables such as gender and race. For future research, it may be important to further examine the ambiguity and lack of clarity of a general condition to tap implicit bias.

Blair et al. (2013) examined whether physicians’ implicit racial biases affected African American and Latino(a) patients’ perception of care. It was hypothesized physicians with higher levels of implicit bias would be rated less favorably by their racial/ethnic minority patients than
clinicians with lower levels of implicit bias. Racial implicit bias was measured by the Race Implicit Association Test (Race IAT; Greenwald et al., 1998). Participants ($N = 134$; 54% female; 75% Caucasian; 50% more than 10 years of experience) were primary care physicians from three healthcare organizations. They were asked to complete the Race IAT to assess implicit and explicit attitudes towards African Americans and Latinos. Patient experiences were collected through an initial screening of 7,437 patients, who were stratified by physicians and ethnicity/race and then randomly selected, with each physician having a maximum number of 12 patients. A total of 2,908 patients were used for the study. These patients completed a primary care assessment survey, a measure of patient-centered care based on four subscales (i.e., interpersonal treatment, communication, trust, and contextual knowledge; Blair et al., 2013).

Results found that physicians’ level of implicit bias was connected to the quality of care patients received (Blair et al., 2013). Physicians with higher levels of implicit bias against African Americans were evaluated as providing less patient-centered care than physicians with lower levels of implicit bias. Latino patients consistently gave their physician lower ratings than African American clients, but these ratings were unrelated to participants’ level of bias. An important limitation from this study was patients were often long-term patients of the physicians sampled and thus had a long-standing relationship. This relationship may have had an influence on ratings and different experiences of care may have occurred with patients who did not continue seeing these physicians for an extended period of time. Blair et al. (2013) concluded that physicians’ implicit bias could still jeopardize their clinical relationships with clients and result in health disparities, especially African American clients as demonstrated from these findings.
In summary, racial implicit attitudes and subsequent bias between African Americans and Caucasians have been found in several studies of counselors and counselors-in-training (Abreu, 1999; Boysen & Vogel, 2008; Castillo et al., 2007; Cooper et al., 2012; Devine, 1989; Katz & Hoyt, 2014). In addition, similar attitudes and bias have been found in a comparable helping profession, medicine, with physicians’ attitudes and bias influencing their work with African American and Caucasian patients (Blair et al., 2013; Cooper et al., 2012; Sabin & Greenwald, 2012). However, the studies examined showed a trend of sampling participants who were predominately Caucasian and women. Thus, Caucasians, specifically women, who practice and train to be future health providers, are susceptible to implicit bias. Researchers (Boysen & Vogel, 2008; Castillo et al., 2007) also found mixed results on the influence of multicultural training on implicit bias, thus, highlighting the need for more research in examining this area with Caucasian counselors-in-training.

Findings of implicit racial/ethnic attitudes and bias also signify the need for further research and interventions to better understand its presence, and to understand whether it is more prevalent than explicit forms of racial/ethnic bias as some scholars (Boysen, 2009; Boysen & Vogel, 2008) contend. This increased prevalence may be equated to Caucasians’ desire to not act or be seen as racially biased. Caucasians’ desire to act or be seen as unbiased may only protect them from explicit forms of bias, but not from implicit forms due to its unconscious nature (Boysen 2009; Boysen & Vogel, 2008; Greenwald & Banaji, 1995). Caucasians may seek to control explicit forms of racial bias and may be able to do so under clear conditions, but struggle with racial/ethnic implicit bias in unclear and ambiguous situations (Dovidio, 2001; Gaertner & Dovidio 2005). This specific form of implicit bias is called aversive racism, and is explained in the next section.
Aversive Racism

Aversive racism is a subtle, unintentional form of implicit bias that is demonstrated by individuals of the dominant racial group towards racial/ethnic minorities (Dovidio, 2001). Individuals identified as aversive racists tend to possess strong egalitarian values and do not believe that they have racial prejudicial attitudes. As a result, these individuals tend not to act in an overtly discriminatory manner in clearly defined situations, which refer to events in which well-defined social norms are obvious; thus, acting in a discriminatory manner to racial/ethnic minorities would be obvious and clearly seen by others. As much as possible, aversive racists tend to avoid interacting with bias towards racial/ethnic minorities; however, these same individuals may draw on implicit attitudes that exhibit racial biases in ambiguous situations (Dovidio, 2001; Gaertner & Dovidio, 2005). Ambiguous situations refer to events in which social norms are weak or unknown; thus, the guidelines for appropriate behavior or responses are unclear. Ambiguous situations do not always present clear opportunities to scrutinize or draw on social norms to make decisions. As a result, ambiguous situations allow for aversive racists to justify their behavior on non-race-related factors (e.g., questionable qualifications for a position; Dovidio, 2001; Gaertner & Dovidio, 2005). Evidence for the aversive racism paradigm is reviewed below.

The aversive racism paradigm. Gaertner and Dovidio (1977) assessed the presence of aversive racism by examining the likelihood of a Caucasian bystander’s desire to help an African American victim. This study established the basic paradigm in examining aversive racism. In the first trial, participants were 75 female, Caucasian, undergraduate students. Participants were led to believe that the goal of the study was to receive ESP signals from another female participant. The sender of the ESP signals was a pre-recorded voice pretending to be a victim
named “Brenda Evans,” who was located across the hallway. Half of the participants were informed of being the only receiver of the signals; the other half were led to believe that two other participants were also receivers and were located in other rooms nearby. The race of Brenda Evans was manipulated in two ways: (a) participants were shown an identification card of Brenda Evans depicting either an African American or Caucasian woman, or (b) participants heard the voice of Brenda Evans, who was depicted as an African American or Caucasian woman. At some point, Brenda Evans stated she was going to fix a stack of chairs. Participants would hear the sound of chairs falling, followed by Brenda Evans screaming and stating that chairs fell on her, followed by silence. The clear condition led participants to believe they were the only receiver. Participants were expected to demonstrate an acceptable behavior of helping the victim no matter what the race of the victim was. In comparison, the ambiguous condition led participants to believe that other individuals were present; as a result, they were expected to rationalize any delay in helping behavior, especially more so toward the African American than Caucasian victim (Gaertner & Dovidio, 1977).

To simulate the collection of ESP data participants were hooked to a heart rate monitor. Participants’ willingness to help was measured in three ways: (a) the length of time participants took to get out of their chair, (b) the length of time participants took to open the door of their room, and (c) the length of time participants took to leave their room, specifically within three minutes of the occurrence of the incident. Participants were also given a post-experimental questionnaire about the incident, which tapped (a) the extent to which participants believed the victim was hurt, (b) the amount of help the victim needed, and (c) the seriousness of the situation.
The findings supported Gaertner and Dovidio’s (1977) hypothesis that aversive racism did not emerge in the clear situations. Females in the only witness condition (clear) helped the African American victim (93.8%) more frequently than the Caucasian victim (81.3%). In contrast, participants in the ambiguous situations (multiple witnesses) helped the African American victim less frequently (37.5%) than the Caucasian victim (75%). The same pattern of helping was found in the length of time participants took to stand and open the door. Participants in the ambiguous situation were slower both to stand and open the door to help an African American victim than a Caucasian victim (Gaertner & Dovidio, 1977).

In the second trial, Gaertner and Dovidio (1977) also used a deception about ESP and identified the victim as an African American or Caucasian individual. However, this trial involved the use of two placebo drugs, and the alteration of the emergency condition. The effects of one placebo were described as increasing heart rate, producing sweaty palms and creating butterflies, which conveyed that participants were experiencing an internal cause for their heightened arousal. The side effects of the other placebo condition were described as dull headache, itching sensation, numbness, and ringing sensation in the ears. This condition was designed for the heightened arousal to be attributed to external causes. In regard to the emergency condition, participants were not warned of Brenda Evans stacking chairs. Participants in the clear emergency situation heard the sound of chairs falling, followed by the victim’s screams and prolonged silence, while the ambiguous situation involved the crash of chairs, followed by complete silence.

Participants were 168 Caucasian, female, undergraduate students. Helping response was measured based on whether participants left the room and the length of time to seek help. The post-experimental survey was the same as the first trial. Findings were not statistically
significant based on the race of the victim. Participants rated the second trial to be more emotionally arousing than those participants in the first trial (Gaertner & Dovidio, 1977). Having a more emotionally arousing event in the context of the placebo effects (regardless of type), may have removed some of the ambiguity of the situation. An increased emotionally arousing experience may have presented a situation wherein helping behavior was a clear choice and participants could not have rationalized their behavior for not helping.

In summary, Gaertner and Dovidio (1977) illustrated that in a clear condition Caucasian females did not act in a discriminatory manner by not showing favoritism for African American or Caucasian victims. However in the ambiguous condition Caucasian females demonstrated favoritism to Caucasian victims by being twice as likely to help Caucasian victims than African Americans. Presumably, the ambiguity of the condition allowed for the witnesses to use probable explanations (the situation was not clear or someone else probably helped) for not helping the African American victim. In contrast, the lack of racial bias for the second trial underscore the complexity of understanding aversive racism, especially the effects of emotional states, which may dilute or enhance such racism. These findings have helped to shift the understanding of racism from solely an overt act to also a subtle, unconscious level that can be rationalized away by the perpetrator.

**Follow-up studies on aversive racism.** Since Gaertner and Dovidio’s (1977) seminal study, aversive racism has continued to be examined. A PsycINFO search on aversive racism revealed 141 writings (71 scholarly journals, 42 books, and 28 dissertations/theses) about aversive racism. Most are empirical studies ($n = 80$; 45 quantitative). The content of the writings covered (a) racial preferences, (b) legal decisions, (c) hiring practices, (d) helping behaviors, (e) educational settings, and (f) psychological assessments. For the purposes of this
literature review, four studies (2 meta analysis & 2 empirical studies) were reviewed that focused on the areas of psychology and helping behaviors, where aversive racism was measured in Caucasians bias toward African Americans or Caucasians.

Frey and Gaertner (1986) examined aversive racism in a sample ($N = 130$) of Caucasian, female, undergraduate students enrolled in an introductory psychology course. Participants were asked to work in a three-member work-group, whose task was to make four letter words from 100 Scrabble letters. Only one of the members on the team was an actual participant; the other two were confederates. Participants were led to believe they were randomly assigned to the position of director, with the other two group members assigned to the position of worker or supervisor. As director, the participant was granted the power to share any of her Scrabble letters with the other group members. However, the director could be forced to share some of her letters if instructed by the supervisor. The members had minimal interaction with one another and communicated through written messages. Participants were shown a picture of either an African American or Caucasian woman identified as the worker. The supervisors were always Caucasian women. Clarity of the situation was based on the manipulation of (a) request for help and (b) locus of need. In regard to request for help, either the supervisor (clear condition) or the worker (ambiguous condition) requested the director to share some letters. In both treatment conditions (clear and ambiguous), the director had full control over the number of letters and the type of letters shared. Helping behavior was measured by whether the director shared any letters with the worker after the request was made, the number of letters passed, and the value of usefulness of the letters passed (Frey & Gaertner, 1986).

Frey and Gaertner (1986) found that the participants helped both African American or Caucasian workers equally when the supervisor made the request (clear condition). However,
when the worker asked for help (ambiguous condition), participants were more than twice as likely to not help the African American worker (33.3%) in comparison to the Caucasian worker (73.3%). African American workers were also given fewer letters (1.47) than the Caucasian workers (4.67). The same pattern occurred for the value of the letters (African Americans: 1.24; Caucasian: 3.81). These findings build on Gaertner and Dovidio’s (1977) findings. Participants did not exhibit racial bias in clearly defined situations, but in ambiguous situations, racial differences existed in their responses, indicating the presence of subtle bias. Caucasians were given more letters and more valuable letters than African Americans, illustrating that the value of the helping behavior differed greatly. However, generalizability of these findings is limited, as all participants were women and thus, it cannot be stated whether these findings would generalize to men. Also participants were assigned to help another woman, and thus, different results may have arisen if participants were asked to help male confederates. Finally, the experiment occurred in a laboratory and participants never met the worker; instead they were only shown a picture of her. Thus, the findings occurred under unrealistic conditions, and in a naturalistic setting, different findings may have emerged.

Dovidio and Gaertner (2000) examined the presence of racial bias in hiring practices over a 10-year period. Aversive racism was measured as the discrepancy between an applicant’s qualification and the criteria of the job by the race of the applicant. It was expected that a well-qualified African American applicant would be rated poorly on the job criteria or recommended less for the job in comparison to an equally qualified Caucasian applicant.

Participants were 194 Caucasian undergraduates at a liberal arts college, 112 (48 men; 64 women) during one academic calendar, and 82 (34 men; 48 women) participants in the next academic year (Dovidio & Gaertner, 2000). Participants were randomly assigned to one of six
treatment conditions that varied based on qualifications and the race of the applicants (Dovidio & Gaertner, 2000). The levels of qualifications for applicants were (a) clearly strong, (b) ambiguous, and (c) clearly weak. The clearly strong applicants’ aligned well with the job criteria. The weak applicants’ experiences did not align well with the job criteria. These applicants answered the interview questions poorly in comparison to the strong and ambiguous applicants. The description of the ambiguous applicants fell in the middle between the clearly strong and the clearly weak conditions. The ambiguous applicants did not answer the interview questions as well as the strong applicants. The race of the applicants was implied based on the list of activities provided. The African American applicants were reported to be a member of the Black student union, whereas the Caucasian applicants were reported to be a member of a fraternity.

Dovidio and Gaertner (2000) found applicants with strong qualifications were recommended the most, weak applicants were recommended the least, and recommendation for the ambiguous applicants fell in the middle. Under the clear condition, participants did not exhibit a bias when rating African American applicants in comparison to Caucasian for either strong or weak applicants. However, as Dovidio and Gaertner (2000) predicted, racial differences were found in the ambiguous condition; African American applicants (45%) were recommended far less than Caucasian applicants (76%; Dovidio & Gaertner, 2000). Thus, it was concluded that individuals unconsciously exhibited a contemporary form of racial bias (Dovidio & Gaertner, 2000). These findings are noteworthy as they occurred over a ten-year time period indicating the maintained presence of prejudice and bias over time. In addition, under clear conditions, whether positive or negative, differences between African Americas were not found. However, a possible limitation and alternate explanation for the findings was that the clearly
weak condition was too negative to cause bias. Dovidio and Gaertner (2000) stated that this condition has the potential to find racial bias. Instead, the condition may have not given the African American or Caucasian candidate enough positive qualities to rationalize favorable ratings. Therefore, future studies are needed to continue understanding how to accurately assess and understand decision making in both clear and ambiguous situations.

Aberson and Ettlin (2004) conducted a meta-analysis of studies on aversive racism. In total, 31 studies were collected involving primarily Caucasian participants and the use of a clear-ambiguous manipulation. Results from the meta-analysis were that under the ambiguous condition, Caucasians were favored over African Americans. In clear conditions, there was a tendency to favor African Americans over Caucasians. These results continue to illustrate the existence of aversive racism. Caucasians appear to control their bias in clear situations and may overcompensate by favoring African Americans to avoid appearing biased. However, in ambiguous situations, racial biases emerge wherein Caucasians are favored over African Americans (Aberson & Ettlin, 2004). These findings are significant, as it shows over several studies the continued presence of aversive racism, strengthening its validity. This meta analysis also showed a pattern of African Americans being favored in clear conditions, which may be a result of Caucasians desire to not be biased or seen as biased by overcompensating.

In a subsequent meta-analysis, Saucier, Miller, and Doucet (2005) found similar results of the effect of aversive racism on help-seeking behaviors. Help-seeking behaviors was searched through PsycINFO using key words altruism, help, helping, assistance, prosocial, and social behavior. Saucier et al. (2005) found that under the clear condition, the treatment of African Americans was found to be the same as for Caucasians across 48 hypotheses tested in 31 journal articles. However, under the ambiguous condition, a racial difference was found in the treatment
of African Americans and Caucasians. Specifically, in comparison to Caucasians, aversive treatment of African Americans was found when the helping behavior was difficult or required (a) personal time, (b) a potential risk, and/or (c) distance to provide the helping behavior.

In essence, it appears that when Caucasian individuals can clearly determine the criteria in making a decision, then they appear to treat all individuals approximately the same, regardless of the race of the individual. However, when there is ambiguity in the situation, Caucasians seem to use other criteria, including race, in making a decision, showing bias against African Americans and favoritism for Caucasians. Thus, this bias seems to be implicit, outside of the awareness of the individual. This trend appears present in Caucasian counselors and counselors-in-training as well (Abreu, 1999; Boysen, 2009; Boysen & Vogel, 2008; Castillo et al., 2007) based on differences in clinical judgment of racial/ethnic minorities and Caucasians.

A major limitation of prior research to curb racial implicit bias in Caucasian counselors is the frequent use of self-report measures to assess and tap biased attitudes. Bias, such as social desirability, impression management, and deception, is inherent in self-reports in that it is unknown how honest individuals are actually reporting information about themselves (Bernstein & Lecomte, 1979; Boysen, 2009; Daniels & Larson, 2001). Self-reports about cultural issues exacerbate how individuals respond. Their bias about race complicates further in the reliability and validity of the scores of self-report responses (Boysen & Vogel, 2008). In the context of counseling, counselors-in-training are often expected to develop awareness, knowledge, and skills about cultural issues in clinical work and research. These areas have usually been assessed at the explicit level. In essence, counselors-in-training are asked specific questions about their level of cultural competence. Using this approach assumes that trainees are sufficiently culturally aware and knowledgeable to evaluate themselves objectively, with minimal bias.
However, when Caucasian counselors are asked to assess their level of cultural bias and competency, their ability to do so may only be adequate based on how bias has been traditionally examined—overtly. Caucasian counselors may be unaware of their implicit attitudes and biases and also have a desire to not be seen as biased or holding prejudices. Thus, Caucasian counselors may need an external observer or measure to give a more accurate assessment of their true level of cultural bias. Kuppens and Spears (2014) noted that having a higher education degree alone is not a buffer for implicit bias, but rather explicit bias. Thus, it is important to not solely rely on self-reports of counselors-in-training, but to have an objective observer to evaluate trainees and provide feedback to them. Such an approach may serve as a more appropriate tool in assessing trainees’ cultural attitudes, specifically implicit biases.

**Feedback**

Feedback is any type of information provided by an agent (e.g., teacher or supervisor) to another person about the latter’s performance or ability (Hattie & Temperely, 2007; Kluger & DeNisi, 1996). For counselors-in-training, feedback may be best understood in the context of supervision. Supervisors communicate information to trainees about their skills, attitudes, behaviors, and appearance, areas which may influence their performance with clients or the supervisory relationship (Hoffman, Hill, Holmes, & Freitas, 2005). Otherwise, in the absence of feedback, trainees may commit one of two errors (underestimating or overestimating) in evaluating their effectiveness as counselors (Latting, 1992; Sitzmann & Johnson, 2012).

For feedback to be effective, prior research (Hattie & Temperely, 2007; Kluger & DeNisi, 1996; Latting, 1992) has found several criteria must be met. One, the feedback must be constructive so the counselor will be empowered to change (Bernstein & Lecomte, 1979; Kluger & DeNisi, 1996; Means & Means, 1971). Two, the feedback must be specific and tangible to
ensure change is possible (Bernstein & Lecomte, 1979; Hattie & Temperely, 2000; Latting, 1992). Three, the feedback needs to be as accurate as possible to also ensure the appropriate change will occur (Hattie & Temperely, 2000; Latting, 1992). Guidelines like these are necessary to ensure trainees can effectively absorb and use the feedback, developing the skills necessary to evaluate more accurately their own behavior as well as work well with diverse clients in the future.

To illustrate the importance of feedback as a way to potentially change implicit bias, a meta-analysis that focused on the influence that feedback had on future performances is reviewed below. Then, two types of feedback (actual and bogus) are defined, and research on types of feedback is reviewed.

The Influence of Feedback

Kluger and DeNisi (1996) conducted a meta-analysis to assess the effect feedback intervention had on future performances. The author defined and coded feedback intervention as actions taken by an external agent with the intention of providing information regarding some aspect of another’s person’s task performance. To meet the criteria for the meta-analysis, studies needed to have had at least one treatment group that received feedback and at least a control group for comparison. Studies must also have had to measure performance, and not simply discussed observed changes. Based on the criteria noted, 131 usable empirical studies were identified.

Research found that feedback had the potential to either improve or reduce future performance (Kluger & DeNisi, 1996). Feedback improved performance by approximately .4 standard deviations across all studies. Improving future behaviors occurred when (a) the feedback described familiar tasks that could be linked to future tasks, (b) learning cues were
embedded in the feedback, and (c) the feedback was constructive. In contrast, feedback was found to reduce future performance on one-third of all cases when the complexity of tasks was high, goals were not specific, and the feedback focused on incorrect responses (Kluger & DeNisi, 1996). Limitations noted were that many studies were omitted from this meta-analysis because they were not considered experiments and lacked a control group. Kluger and DeNisi (1996) concluded that their results highlighted that feedback may influence future behaviors. Strengths of this study are the findings that feedback is seen as psychologically reassuring, and that individuals often seek feedback. However, more attention is needed on understanding individuals’ response to feedback that is constructive or unexpected. Providing unexpected and critical feedback is noteworthy because, as previously explained, counselors-in-training have a tendency to overestimate their level of multicultural competency and may only be able to assess their level of explicit biases (Boysen & Vogel, 2008; Kuppens & Spears, 2014).

**Real and Bogus Feedback**

Real or actual feedback refers to providing information that is an accurate assessment of an observed behavior (Rousseau & McKelvie, 2000). In contrast, bogus feedback is the process of giving fake information or an inaccurate representation about an observed behavior. Both types of feedback can be positive or negative. Receiving positive feedback would reflect progress, improvement, or mastery on a task, whereas negative feedback would reflect a lack of progress, limited capability, or no mastery. Both could also reflect a bias of the feedback giver, for or against the recipient of the feedback. As a result, the valence of the feedback may be just as important as the accuracy of the feedback. Does positive or negative feedback, regardless of its accuracy, have the same effect on future performance? Namely, does positive feedback improve future performance and does negative feedback reduce the performance or vice versa?
Research on Real and Bogus Feedback

A PsycINFO search on the usage of bogus positive and negative feedback in the fields of psychology and education revealed 57 writings (39 scholarly journals, 16 books, and 2 dissertation/theses) about actual feedback in counseling. The content of the writings consisted of the following: (a) counseling process, (b) supervision, (c) multicultural counseling, (d) group counseling, (e) counselor training, and (f) psychological assessments. For the purpose of this literature review, six studies were selected and reviewed that focused on the influence of how bogus feedback on future performance.

Means and Means (1971) examined confirming versus disconfirming bogus feedback on the performance of 72 undergraduate students. Participants were first given an aptitude assessment on adolescent psychology. Afterwards, participants, unknowingly, were rank-ordered by their past GPA based on a median-split to form two groups (i.e., low and high GPAs). Participants were then randomly assigned to receive either no, low, or high feedback about their performance on the aptitude test. Feedback was either congruent or incongruent with their GPA. Participants were given an achievement test as the outcome measure.

Means and Means (1971) found students with high GPA scores when given bogus feedback (i.e., low aptitude scores), performed better on the achievement test than students who received high feedback and actually had high GPA scores. Students with low GPA scores and given bogus feedback (i.e., high aptitude scores) performed better than students who received real feedback (low feedback) and had low GPA scores. The highest scores from both low and high GPA groups resulted from receiving incongruent bogus feedback. Results from this study illustrated that negative, as well as incongruent, feedback has the potential to improve or decline future performance, adding to the literature that negative feedback can influence future
performance. A limitation of this study is that demographic information, such as gender and ethnicity/race, was not included in the study, limiting the generalizability of these findings.

Bernstein and Lecomte (1979) conducted a similar study by examining whether the valence and accuracy of feedback during supervision influenced future performance. Participants were 108 master’s degree counselors-in-training (65 females, 43 males) from two large universities. The study involved two sessions. In the first session, participants were asked to first complete a perceptual test and then select a supervisor of known professors from their respective graduate training programs. Participants were instructed to choose a supervisor who they believed would provide accurate feedback about them. The last task of the first session asked participants to rate the feedback expected from their supervisor on a personality scale. Afterwards, participants were randomly assigned to one of four feedback conditions: (a) moderate positive, (b) congruent, (c) moderate negative, and (d) extreme negative (Bernstein & Lecomte, 1979).

The second session began with participants receiving their feedback (Bernstein & Lecomte, 1979). They were led to believe the feedback was from the selected supervisor in session one but was actually randomly assigned to one of the four feedback conditions. After participants reviewed their feedback, they were then asked to rate their own personality on the same measure that they rated their supervisor in session one and the importance of each personality characteristic. Next, participants completed two distraction tests (a questionnaire and a brief essay) and then were asked to recall what feedback ratings they received from their selected supervisor.

Bernstein and Lecomte (1979) found that participants who received moderate, positive feedback had the greatest amount of agreement with their supervisor, and a more accurate recall
of the feedback received from their supervisor. Participants who received negative feedback reported less agreement with the supervisor’s feedback and had poorer recall of their feedback than participants who received positive feedback. In addition, moderate, negative feedback resulted in participants having greater agreement with supervisor’s feedback and greater recollection of feedback received than those who received extreme, negative feedback. Thus, the strength of these findings is that both positive and negative feedback influenced the level of recollection of feedback and agreement about it. In addition, the findings between extreme and moderate, negative feedback indicated that there appears to be a tipping point when extremely negative feedback deteriorates rather than improves performance. A limitation from this study is the lack of information of whether positive and negative feedback varied based on the gender of the trainee. Gender differences were not examined in this study despite having an almost equal number of men and women. Also, Bernstein and Lecomte (1979) could have observed the qualifications and type of supervisors chosen by trainees. The trainees’ selection of supervisors to receive feedback from may have influenced trainees differently based upon salient characteristics of the supervisor (e.g., age, ethnicity/race, gender, expertise) as well as the trainees.

Daniels and Larson (2001) examined the influence of feedback on self-efficacy and counselor anxiety. Participants were 45 graduate counseling students from a U.S. Midwestern university. Participants first completed a pre-test self-efficacy measure and then were involved in a brief mock counseling session. Following the counseling session, participants then completed a second pre-test rating their level of anxiety and evaluating their performance on the counseling session. Participants were then randomly assigned to receive one of two types of
feedback (positive or negative). After receiving the feedback, participants then completed two post-test measures (self-efficacy and anxiety).

The results were that feedback influenced participants’ level of anxiety and self-efficacy. Positive feedback significantly increased self-efficacy and reduced anxiety in comparison to negative feedback. These results illustrated the influence positive and negative feedback may have on internal states. It should be noted that the negative feedback could be viewed as extreme, as participants were told that they scored “15 out of 100.” Thus, the extreme negative feedback provided to participants was not constructive, which is counter to what is considered to be beneficial for growth (Bernstein & Lecomte, 1979). There was a primary limitation of the study; namely, participants were not assessed on their future performance on the initial task (i.e., the mock counseling session). If participants were reassessed after receiving feedback on their counseling ability, direct evidence could have been obtained regarding the influence of feedback on counseling performance. This study builds on the literature that extremely negative feedback can affect a counselors’ ability to perform future tasks, as it may cause an increase in anxiety and a lowering in the level of confidence to believe in their ability. Thus, this study strengthens the argument that negative feedback can be either helpful or hinder future performance.

Rousseau and McKelvie (2009) examined the influence of feedback on the intellectual assessment of 196 French-Canadian high school students. Participants were given an IQ assessment and randomly assigned to receive positive or negative feedback. After receiving feedback, participants were later given a parallel form of the intelligence measure. Results were not found to be statistically significant for feedback. Rousseau and McKelvie (2009) concluded that the results could have been affected because the feedback scripts were weak. The feedback scripts may not have been clear or strong enough to create an influence on future behaviors.
Also, the participants were from a small private high school and may have already been exposed to feedback about their general level of intellectual ability. Thus, the strength of this study reveals that feedback alone cannot solely influence future performance. For feedback to influence future performance, the feedback must be clear regarding the positive or negative valence, and the receiver must also believe it is credible (Kluger & DeNisi, 1996; Rousseau & McKelvie, 2009).

Raftery and Bizer (2009) studied the effect of negative feedback on performance by examining its influence on cognitive reappraisals and expressive suppressors, two common strategies for emotional regulation. Raftery and Bizer (2009) defined cognitive reappraisal as a strategy wherein a person thinks about a situation in a different light to change its emotional impact. In contrast, expressive suppression is when someone suppresses or inhibits emotions and behaviors following a situation. Raferty and Bizer (2009) expected that negative feedback on an initial task would have subsequent impact on future performances on other tasks in comparison to moderate feedback. It was expected that negative feedback would influence suppressors and the ability to utilize cognitive-emotional resources, resulting in poorer performance on the second tasks. Or that negative feedback would influence appraisers, wherein the negative emotions associated with the feedback would be decreased and viewed more positively, thus resulting in better performance on the second trial.

Participants \((N = 137)\) were undergraduates who participated for course credit or a monetary gift-card (Raferty & Bizer, 2009). Participants first completed an assessment intended to measure intelligence and future academic success. Following the assessment, participants were randomly assigned to one of two feedback conditions (negative feedback or moderate feedback). Participants in the negative feedback condition were told that they had answered
three of 12 questions correctly (14th percentile), while those in moderate feedback condition were told they answered 7 questions correctly (65th percentile). Participants then completed a second assessment on visual spatial intelligence and future academic performance. Participants completed the study by answering the Emotion Regulation Questionnaire (Gross & John, 2003) which assesses emotion regulation style (Raferty & Bizer, 2009).

Statistically significant results were found for the second hypothesis. Participants who received negative feedback and utilized reappraisal as an emotional regulation strategy did better on the second visual spatial tasks than those who received moderate feedback (Raferty & Bizer, 2009). Participants who utilized an emotional regulation strategy appeared to reframe negative feedback in a positive way, which may have enhanced their subsequent cognitive performance. Differences in feedback could not be found for participants who used expressive suppressors as a strategy to manage their emotions. Raferty and Bizer (2009) concluded whereas most research has examined the suppression of emotion following negative feedback and experiences, research should also focus on how negative feedback can also be reappraised or reframed to a more positive experience, yielding performance gains. A possible limitation and direction for future research from this study is the use of moderate feedback. It is possible that the moderate feedback was not really positive feedback; thus, the moderate feedback may not have influenced individuals enough to perform as well. Moderate feedback may have not contained a sufficiently positive valence for participants to gain confidence or a desire to perform better, which seems to have been gained from receiving negative feedback. Findings from Raferty and Bizer (2009) are noteworthy as they continue to show negative feedback influences future performance, and that bogus negative feedback can be comprehended and reframed for positive gains.
Cianci, Klein, and Seijts (2010) examined the effect of negative feedback on tension and the subsequent performance on a learning or performance goal. Participants were 73 undergraduate students who were assigned to one of two conditions: (a) learning goal or (b) performance goal. A learning goal is intended for individuals to focus on gaining competence, developing new skills or approaches to mastering a new task, and learning from experience. It was expected that learning goals would act as a buffer to negative feedback. Conversely, performance goals were intended for individuals to exert effort and rely on already acquired skills to attain a desired goal. Performance goals were also expected to create dissatisfaction and disengagement from participants following negative feedback (Cianci et al., 2010). Participants first completed a questionnaire on conscientiousness, followed by receiving instructions based on the goal manipulation. Next, participants completed 10 comprehension questions and five analogy questions and received false negative feedback. Participants then completed the Thayer’s Activation-Deactivation Adjective Checklist (AD ACL; Thayer, 1989) to measure tension and lastly, repeated the comprehension and analogy questionnaire (Cianci et al., 2010).

Results were that participants in the learning goal outperformed those with a performance goal (Cianci et al., 2010). Participants in the learning goal also reported less tension than those in the performance goal. Cianci et al. (2010) concluded that learning goals served as a mediator between conscientiousness and performance, and thus, appeared to lower the amount of tension individuals experienced prior to receiving negative feedback, allowing for greater future performance. One limitation was using a laboratory setting, which may not be representative of actual performance tasks. Though differences were found between participants’ utilization of learning and performance goals strategies to lower tension, it is unclear whether at any point participants unconsciously switched from a learning to performance framework, or vice versa.
The findings of this study illustrate how bogus feedback can be utilized to show how supervisors and others can provide feedback (whether positive or negative) in a learning context that promotes less tension and better future performance. Future research should continue exploring how to utilize negative feedback to maximize performance through setting appropriate goals.

In summary, results from the reviewed studies (Bernstein & Lecomte, 1979; Cianci et al., 2010; Daniels & Larson, 2001; Kluger & DeNisis, 1996; Means & Means, 1971; Rousseau & McKelvie, 2009) on bogus positive and negative feedback indicated that the presence of feedback does not guarantee change in future behaviors. Feedback, actual or bogus, may influence future performance when certain criteria are met. One, for feedback to have an influence, individuals must believe that the feedback given is from a credible source and is connected to their actual performance (Daniels & Larson, 2001; Rousseau & McKelvie, 2009). Two, the feedback must be constructive. Positive feedback, regardless of its accuracy, appears to have the greatest likelihood of improving future performance. Negative feedback also has been shown to have the potential to improve future performance; however when negative feedback is too harsh or does not encourage growth, the feedback may deteriorate rather than improve future performances (Bernstein & Lecomte, 1979; Daniels & Larson, 2001; Means & Means, 1971; Raferty & Bizer, 2009). Given the possibility of influencing and potentially improving a subsequent behavior when these conditions are met, do positive or negative feedback influence the tendency to commit implicit racial biases when evaluating a clinical case?

**Conceptual and Methodological Issues**

To test whether the type of feedback could invoke and influence implicit racial bias, a prime was used prior to participants reviewing a clinical case. A prime is a way to access implicit memory by exposing participants to a stimulus (Bargh, 2006; Bargh & Chartrand, 2006).
It is believed that a prime unconsciously affects how individuals respond to another task. A brief review about priming is provided and its use in studies.

**Priming.** The purpose of priming is to temporarily activate states of an individual’s internal or unconscious thoughts, attitudes, and behaviors in a hidden or unconscious way (Bargh, 2006; Bargh & Chartrand, 2000). Once activated, these internal states are then examined on how they connect with the respondent’s environment, motivation, and/or social behavior.

Three types of primes have been used in research: (a) conceptual, (b) mindset, and (c) sequential (Bargh & Chartrand, 2000). A conceptual state is a condition where a mental representation is activated in one context, with the intent of exerting a passive or unconscious influence on another condition. For example, priming an individual with the word “football” without their knowledge might produce the word football or other types of sports on a subsequent sentence completion tasks. A mindset prime occurs when an individual is asked to actively and consciously engage in goal-directed thinking in one context, with the goal of having this “mindset” influence or operate in a new unrelated context. Sequential priming differs from mindset and conceptual priming because the immediate awareness or memory of an individual is not of interest, but rather chronic or long-term connections in memory are activated and examined (Bargh & Chartrand, 2000).

Researchers (Abreu, 1999; Bargh, 2006; Devine, 1989; Thaper & Rouder, 2001) have used conceptual primes (subliminal and supraliminal) to test forms of bias such as implicit racial bias. A subliminal conceptual prime occurs an individual has little to no awareness of being primed (Bargh & Chartrand, 2000). The prime is often briefly presented, and then masked from further awareness. In contrast, individuals who experience supraliminal conceptual primes are aware of the prime, as it is presented through a conscious-related task. Therefore, implicit racial
bias has been assessed through conceptual primes depending on how much level of awareness the participants are to have of the prime. A benefit of using conceptual primes is the flexibility in testing how various types of stimuli can influence future behaviors (Bargh & Chartrand, 2000). Because conceptual primes are masked and unaware to the individual, researchers can also examine how long the prime influences behavior (Bargh & Chartrand, 2000). A limitation to conceptual primes is that the prime must have some level of connection to the behavior being influenced (Bargh & Chartand, 2000).

To test whether feedback can influence favoritism and racial/ethnic bias that occurs at an unconscious level, a supraliminal conceptual prime would be best suited. As previously discussed, a conceptual prime must have some connection to the behavior being influenced. Therefore, if implicit bias is being influenced by feedback, the feedback should be cultural in nature to bring awareness to racial/ethnic bias and multicultural competency. For example, Devine (1989), used a subliminal priming technique to test if priming stereotypical words could unconsciously access prejudices in individuals. Individuals were primed with stereotypical words of African Americans and then assessed if these stereotypical words had an influence on ratings of hostility of an individual presented in a vignette. Devine (1989) found that individuals primed with more African American stereotypical words rated a vignette more hostile than individuals who received less stereotypical words about African Americans. Thus, the cultural nature of the prime had an influence on the activation of prejudice. Likewise, feedback given to trainees would need to be cultural in nature; trainees would also need to take a cultural assessment to increase the influence of the prime because trainees then may believe that feedback is an actual representation of their ability or attitudes. Therefore, participants taking a multicultural or prejudicial assessment would serve as a conscious task that could result in giving
positive or negative feedback. Thus, feedback would serve as a prime to trainees, by altering their mindset to think about their prejudicial attitudes and multicultural competency, and possibly bring a new state of awareness. Therefore, a supraliminal prime would be best suited to assess whether positive or negative cultural feedback could influence implicit racial bias in counseling trainees.

Methodological concerns. Priming individuals to think about their cultural attitudes in a positive or negative fashion and then observing their subsequent behavior seems to be similar to stereotype threat. Stereotype threat is a situational threat that may affect the performance of members of any non-dominant group when confronted with the fear of confirming a negative stereotype about their group (Steele, 1997). However, it is possible that assessing positive and negative feedback about cultural attitudes and multicultural competency is different than a stereotype threat for two reasons (Steele, 1997; Steele & Aronson, 1995). One, stereotype threat draws individuals’ attention to the stereotype and taps into their fear of confirming this group’s stereotype. Receiving cultural feedback would be specific to an individual and not draw on the individual’s group membership. Two, providing individuals with cultural feedback would be an assessment of their multicultural competency that occurred from an actual assessment. In comparison, stereotype threat research presents individuals with the fear of upholding a stereotype even before they have completed a task (Steele & Aronson, 1995). Both of these reasons illustrate how priming a supraliminal conceptual prime differs from stereotype threat. Supraliminal priming will be used in the current study in examining the influence cultural feedback has on invoking and affecting the use of implicit racial bias.
The Current Study

A primary task of counselors is the assessment of symptomology and the application of appropriate clinical judgment towards clients (Brown & Lent, 2008). However, research has indicated that Caucasians have shown racial bias in this skill due to implicit bias (Boysen, 2009; Boysen & Vogel, 2008; Castillo et al., 2007; Lopez, 1989). One explanation for this finding is that the racial history in the United States has resulted in the socialization of most individuals, including most Caucasian counselor trainees, to be bias, usually at an implicit level toward racial/ethnic minority clients (Greenwald & Banaji, 1995). Changing bias prior to entering graduate school would require extensive early interventions in the eradication of racial stereotypes and prejudices. However, these interventions rarely occur early in an individual’s development. As a result, most counseling graduate programs require multicultural training in an attempt to address bias (Abreu et al., 2000; D’Andrea et al., 1991).

In the areas of multicultural and clinical competence, the counseling field has relied heavily on counselor trainees’ evaluating themselves (Boysen, 2009; Boysen & Vogel, 2008). Using self-report measures gives trainees an opportunity to practice developing awareness of various clinical skills. To that end, this form of assessment is useful, especially for clearly observable behavioral skills (e.g., asking open-ended questions). However, there are several major limitations in relying solely on self-report measures to assess multicultural competence in counselor trainees. One, these measures tap prejudicial attitudes and bias at a global level; thus, the trainees are relying on what they generally believe, not on specific attitudes or behaviors. Two, it may be difficult for trainees to see their own cultural biases, especially covert ones in ambiguous situations.
Furthermore, implementing multicultural training and assessing its effectiveness may be challenging to do. Researchers (Boysen, 2009; Boysen & Vogel, 2008; Castillo et al., 2007; Katz and Hoyt, 2014) have also found mixed results in the effectiveness of multicultural training to curb implicit racial biases in Caucasian trainees. Caucasian counselors-in-training have reported high levels of multicultural competency, but at the same time have shown a tendency to demonstrate implicit racial bias. Thus, counselor’s self-report of multicultural competency has not matched the counselor’s actual behavior. This dual state is understandable, given that, by definition, implicit bias is unconscious. Caucasian counselors would not be aware of their level of implicit bias (against racial/ethnic minorities and for dominant groups), while at the same time have a social desire to not be prejudiced. The desire to not hold prejudices or act discriminatory in counseling practice would allow for implicit bias to be maintained, especially in ambiguous settings where the unbiased response is uncertain (Dovidio, 2001; Gaertner & Dovidio, 2005).

To date, there is not a method of influencing already present implicit racial bias in counselors and counselors-in-training. However, researchers (Bernstein & Lecomte, 1979; Kluger & DeNisis, 1996; Means & Means, 1971) have indicated that professional feedback given to trainees improves their performance on future-related tasks. Thus, the purpose of this dissertation is to examine whether giving counseling trainees various types of feedback (positive or negative) on their level of multicultural competency might affect the level of implicit bias, either by minimizing or magnifying, on trainees’ evaluation on a client’s level of functioning, especially racial/ethnic clients.

Research on positive feedback (Bernstein & Lecomte, 1979; Daniels & Larson, 2001; Kluger & DeNisis, 1996; Means & Means, 1971) seems to indicate that such feedback would have the greatest likelihood of decreasing the effect of implicit bias on future behaviors.
However, Caucasian counselors-in-training who already have a strong desire to not be seen as prejudice or bias may rate themselves in a positive manner despite their actual behavior (Boysen & Vogel, 2008). It is also possible that these same Caucasian trainees who receive positive cultural feedback that confirm a non-prejudice attitude would feel more confident and comforted by positive feedback. Such feedback validates their desire to not be seen as biased and is a contrast to those who receive negative or no feedback and may feel less confident or comfortable. Negative feedback has also been shown to influence behavior and promote growth, but individuals who receive negative feedback instead of positive feedback, have reported a different shift in their internal state by feeling less confident in their ability (Bernstein & Lecomte, 1979; Daniels & Larson, 2001; Means & Means, 1971; Raferty & Bizer, 2009).

Trainees who receive negative feedback about their cultural competency may experience a level of discomfort and a low sense of mastery of such competencies.

Thus, the type of feedback given may result in counselors making clinical decisions differently. An increase in comfort and confidence after receiving positive feedback has been shown to influence future behaviors, including leading to errors in decision-making and clinical judgment. The individual seems to be overconfident and willing to give more extreme ratings, diagnosis, and treatment planning in comparison to those who do not receive this type of feedback (Gambara, & Leon, 1996; Garb, 1986; Garb, 1997; Lopez, 1989; Miller, Spengler, & Spengler, 2015; Spengler et al., 1995). By providing positive culturally specific feedback, Caucasian trainees may pay less attention to their level of cultural awareness and potential to be bias, increasing the likelihood of being more biased especially in ambiguous situations where the appropriate response is unclear. By receiving positive cultural feedback, trainees may feel more comfortable rating an African American case and more likely to give severe ratings on such a
clinical case, increasing the likelihood of showing an implicit bias in comparison to those who receive negative or no feedback. Trainees who receive negative feedback may feel not as comfortable and and less confident about their ability to provide clinical judgment. As a result, they may become hesitant to give African American clients more severe ratings in comparison to trainees who receive positive feedback. Processing this feedback may result in showing less implicit bias (Devine, 1999). Thus, the purpose of this study was to examine whether giving primarily Caucasian female trainees positive or negative cultural feedback would (a) invoke implicit bias and (b) influence its effect on evaluating an ambiguous clinical case of an African American in comparison to a Caucasian. Because counselors-in-training tend to rate themselves favorably on cultural issues, their self-report was not solely used to give them feedback. Instead, bogus feedback was given to them about their cultural score and was also used to test the effect of positive and negative feedback on the clinical evaluation of a case, which varied on race.

**Overview of Research Design and Variables**

An experimental design was used in this study with three manipulations (independent variables). The first manipulation was the type of feedback counselors-in-training received about their level of prejudicial attitudes, which was assessed with the Quick Discrimination Index (QDI; Ponterrotto et al., 2002) and is presented in Appendix A. The QDI measures prejudicial attitudes directed towards racial/ethnic minority groups and women, and served as the stimulus to give feedback to trainees on their level of social and prejudicial attitudes. Participants received one of three levels of feedback (positive, negative, no feedback) about their performance on QDI. The second manipulation was the race of the male client (African American versus Caucasian American) described in half of the vignettes, which are presented in Appendix B. The third manipulation involved varying the vignette based on the clarity of the
presenting problem in two ways: (a) a clear diagnostic problem, and (b) an ambiguous diagnostic problem. Thus, manipulating three variables resulted in a 3 (type of feedback) x 2 (race of client) x 2 (clarity of vignette) between-subjects design, resulting in 12 treatment conditions.

The dependent variables were participants’ ratings of the clinical impressions of a client based on: (a) severity of the problem, (b) urgency of care, (c) motivation to engage in therapy, (d) likelihood to stay in counseling, and (e) progress. A negative clinical evaluation was based on the following ratings: (a) higher level of severity, (b) higher need of urgent care, (c) lower level of motivation, and (d) lower likelihood of remaining in therapy, and (e) poorer progress.

**Research Questions**

Three research questions guided the study.

1. **Was the clinical judgment of counselors-in-training affected based on type of feedback (none, positive, or negative) received?**

2. **Did the clinical judgment of counselors-in-training vary based on both feedback (none, positive or negative) received and the race (African American or Caucasian) of the client?**

3. **Did the clinical judgment of counselors-in-training vary based on the type of feedback (none, positive or negative), the race (African American or Caucasian) of the client, and the clarity (clear or ambiguous) of the client’s presenting problem?**

**Hypotheses**

**Hypothesis 1.** Participants who received positive feedback about their presumed level of prejudicial and social attitudes were expected to rate the clients, regardless of race or clarity of their problem, more negatively than participants who received no feedback or negative feedback about their level of prejudicial and social attitudes.
**Hypothesis 2.** Participants who received positive feedback about their presumed level of prejudicial and social attitudes were expected to give a more negative clinical evaluation of the African American clients, regardless of clarity of the problem, than participants who received either negative or no feedback and rated a Caucasian client.

**Hypothesis 3.** Participants who received positive feedback about their presumed level of prejudicial and social attitudes were expected to give a more negative clinical evaluation of an African American client with an ambiguous problem than participants who received either negative or no feedback and rated a Caucasian client with an ambiguous problem.
CHAPTER III

METHOD

Participants

Participants were 193 (156 women; 36 men; 1 unspecified) counseling graduate students attending a predominately White university (PWU) located in the Midwest of the United States. Participants were taking graduate coursework in a counselor education and counseling psychology programs located in the College of Education. Ages for participants ranged from 19 to 62 years old ($M = 29.86$, $SD = 8.10$). Most participants self-identified as Caucasian ($n = 136$, 70.5%), followed by African American ($n = 30$, 15.5%), Biracial ($n = 13$, 6.7%), and the remaining 6% were Asian American ($n = 2$), Latino ($n = 6$), Native American ($n = 1$) and other ($n = 2$). Most participants reported their academic program as counseling psychology ($n = 79$, 40.9%), followed by community mental health ($n = 35$, 18.1%), marriage, couple, and family therapy ($n = 33$, 17.1%), school counseling ($n = 22$, 11.4%), college counseling ($n = 16$, 8.3%), rehabilitation counseling ($n = 2$, 1%; six did not specify). A further analysis of participants’ descriptive statistics is presented in Table 1.

Research Design

A 3 (type of feedback) x 2 (race of vignette) x 2 (clarity of vignette) between subjects experimental design was used. Three independent variables were manipulated: (a) type of feedback, (b) race of client, and (c) clarity of problem, resulting in the creation of 12 conditions. A depiction of the design is presented in Figure 1. Participants’ assignment to a treatment group was based on simple random assignment. Using a random number generated computer program
Table 1

*Demographic Summary of Participants’ Race and Program of Study by Gender*

<table>
<thead>
<tr>
<th>Race</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(n)</td>
<td>%</td>
</tr>
<tr>
<td>Caucasian</td>
<td>28</td>
<td>78.0</td>
</tr>
<tr>
<td>African American</td>
<td>6</td>
<td>17.0</td>
</tr>
<tr>
<td>Asian American</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Latino(a)</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td>Native American</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td>Biracial</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>(N)</td>
<td>36</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Program of Study</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
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<td></td>
<td>(n)</td>
<td>%</td>
</tr>
<tr>
<td>Community mental health</td>
<td>8</td>
<td>23.0</td>
</tr>
<tr>
<td>School counseling</td>
<td>2</td>
<td>6.0</td>
</tr>
<tr>
<td>Counseling psychology</td>
<td>17</td>
<td>49.0</td>
</tr>
<tr>
<td>Marriage couple family therapy</td>
<td>5</td>
<td>14.0</td>
</tr>
<tr>
<td>College counseling</td>
<td>2</td>
<td>6.0</td>
</tr>
<tr>
<td>Rehabilitation counseling</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>(N)</td>
<td>35</td>
<td></td>
</tr>
</tbody>
</table>

Note. Program of study = Participants graduate degree program.
Figure 1. Participants’ assignment to treatment conditions.
Note. AA-C = African American Clear Vignette; AA-A = African American ambiguous vignette; C-C = Caucasian clear vignette; C-A = Caucasian clear vignette. N = 193.
to ensure equal sample size, participants were first randomly assigned to one of the three feedback conditions. Next, participants were assigned to one of the four types of vignettes that differed in race and clarity.

**Feedback conditions.** Participants were assigned to one of the three feedback conditions: (a) no feedback (control), (b) negative feedback, and (c) positive feedback. Giving feedback was based on everyone taking a cultural measure, the Quick Discrimination Index (QDI; Ponterotto et al., 2002). A delineation of the differences in feedback is reflected in the feedback scripts used to communicate the feedback to the participants. Participants’ first names were written on the script to personalize the feedback.

**No feedback (control).** A third of the participants \( n = 65, 33.7\% \) were assigned to the no feedback condition. Participants in the no feedback group took the QDI, but did not receive any feedback about their performance. In the no feedback condition, participants received a script with an explanation for not receiving their feedback and an indication that they would receive their score at a later date. The script read as follows:

Dear ________________________,

At this time, your answers on the measure just taken are in the process of being scored. You will receive your feedback at a later date. Once you receive the feedback, if you have any questions please contact the principal investigator as noted on the informed consent.

Signed

[Name, degree]

Principal Investigator

**Negative feedback.** A third of the participants \( n = 64, 33.2\% \) were assigned to the negative feedback condition. Participants in the negative feedback group took the QDI and were
given feedback that they scored below average on the QDI. Participants who received negative feedback received a script that reads as follows:

Dear ____________________________.

Based on your answers on the measure just taken, you scored below average in comparison to other counseling graduate students. If you have any questions, please contact the principal investigator (as noted on the informed consent) about your feedback after completing the research.

Signed

[Name, degree]

Principal Investigator

Positive feedback. A third of the participants ($n = 65, 3.3.2\%$) were assigned to the positive feedback condition. Participants in the positive feedback group took the QDI and were given feedback that they scored above average on the QDI. Participants who received the positive feedback received a script that reads as follows:

Dear ____________________________.

Based on your answers on the measure just taken, you scored above average in comparison to other counseling graduate students. If you have any questions please contact the principal investigator (as noted on the informed consent) about your feedback after completing the research.

Signed

[Name, degree]

Principal Investigator
Vignettes. Once assigned to a feedback condition, participants were then randomly assigned to a vignette condition, which was based on the race of the client and the clarity of the diagnosis contained in the vignette. Participants were assigned to a vignette that depicted a male client who varied in the clarity of the diagnoses, reflecting one of two diagnostic conditions, a clear or an ambiguous clinical problem. Thus, participants had an equal chance of rating one of the four types of vignettes: (a) Clear-Caucasian, (b) Clear-Black, (c) Ambiguous-Caucasian, and (d) Ambiguous-Black. The vignettes are presented in Appendix B, as well as the clarity of diagnoses is briefly described below.

Clear. The clear vignette was marked by the obvious presence of symptomatology that meets criteria for a diagnosis of a generalized anxiety disorder. In the vignette, the male client is described as having frequent bouts over the last month of anxiety, nervousness, difficulty concentrating, and worry from multiple stressors. Besides describing the client’s internal state, spheres of functioning at home and work, and in social situations were described.

Ambiguous. The ambiguous vignette described a male client who did not fully meet the criteria for any disorder. In the vignette, the male client is described as having difficulty with feelings (e.g., irritation, and moodiness), in making decisions, in focusing (concentration), and in experiencing loneliness. Besides describing the client’s internal state, spheres of functioning at home and work, and in social situations were described. The ambiguous vignette was designed to represent an eclectic and random set of symptoms that would not consistently meet the diagnostic criteria for a specific mental health disorder.

Pilot Study

Overview. A pilot study was conducted with the primary tasks of establishing the viability of the clinical vignettes. The pilot study also determined the amount of time it took
participants to read the instructions and clinical vignette, and to complete the clinical impressions measure.

**Participants and procedures.** Participants were recruited from a convenience sample of counseling and clinical psychology doctoral students from a Midwest university. Thirteen recruitment emails were sent asking for participation in the pilot study, with 11 of the participants agreeing to participate. Of the 11 participants, 7 were women (4 rated the clear vignette and 3 rated the ambiguous vignette), while the remaining 4 participants were men (2 rated the clear vignette and 2 rated the ambiguous vignette).

Race was not included in piloting the vignettes to ensure participants focused on whether the clinical descriptions meet the criteria for clarity of symptoms. After reading the clinical vignette, participants were asked to complete the clinical impression measure, which is contained in Appendix C. After completing the clinical impression measure, participants were asked to diagnose the hypothetical client using the Diagnostic and Statistical Manual of Mental Disorders 4th edition-TR (DSM-IV TR; American Psychiatric Association, 2000).

**Results.** The majority of participants who read the clear vignette \( (n = 6) \) gave a diagnosis of generalized anxiety disorder \( (n = 4, 67\%) \). The remaining two participants provided the following diagnoses: (a) no diagnosis and (b) a diagnosis of adjustment disorder with anxious features. Participants who read the ambiguous vignette \( (n = 5) \) gave no consistent diagnosis, but five separate diagnoses (anxiety, ADHD, adjustment disorder, mood disorder NOS, and no diagnosis). More than 50% of the participants who rated the clear vignette diagnosed the client with generalized anxiety \( (n = 6; 67\%) \), as the vignette was designed to elicit. Participants who rated the ambiguous vignette \( (n = 5) \) did not give a consistent diagnosis, which met the operational definition of an ambiguous event.
Measures

**Quick discrimination index.** The Quick Discrimination Index (QDI, Ponterotto et al., 2002) is a 30-item instrument designed to measure prejudicial attitudes directed towards racial/ethnic minority groups and women. The QDI contains three subscales: (a) cognitive racial attitudes (9 items), (b) affective racial attitudes (7 items), and (c) cognitive gender attitudes (7 items). The cognitive racial attitudes subscale assesses cognitive attitudes towards racial diversity (e.g., “Overall, I think racial minorities in America complain too much about racial discrimination”). The second subscale, affective racial attitudes, assesses attitudes towards racial diversity (e.g., “I would feel O.K. about my son or daughter dating someone from a different race”). The third subscale, cognitive gender attitudes, assesses the cognitive attitudes toward gender equity and women’s issues (e.g., “I think there is as much female physical violence toward men as there is male physical violence toward women). All items are rated on a 5-point Likert scale on the following range: 1 = strongly disagree, 2 = disagree, 3 = not sure, 4 = agree, to 5 = strongly agree. There are two options for scoring the QDI, (a) summing all items for a total score or (b) summing the items by subscale for three subscales scores. A higher score is interpreted to indicate nonracist and nonsexist attitudes, while lower scores indicate negative attitudes towards racial minorities and women (Ponterotto et al., 2002).

The QDI scores have produced the following internal consistency estimates (a) QDI total = .74 to .89 (Mdn = .88); (b) cognitive racial attitudes = .80 to .90 (Mdn = .85); (c) affective racial attitudes = .70 to .87 (Mdn = .77); and (d) cognitive gender attitudes = .47 to .76 (Mdn = .71) (Ponterotto et al., 2002). Test-retest (15-week interval) reliability estimates for the QDI scores have ranged from .81 (cognitive gender attitudes) to .90 (cognitive racial attitudes; Ponterotto et al., 1995). Based on confirmatory factory analysis, a three-factor model was
considered to have the strongest fit, with a goodness–of-fit index (GFI) of .87, a standardized root mean square residual (SRMR) of .07, a rho parameter of .85 (Ponterotto et al., 2002), even though the GFI values fell below the recommended fit criteria (> .95; Hu & Bentler, 1999).

For convergent validity, cognitive racial attitudes correlated in the predicted direction with measures of White racial consciousness ($r = -.76$), multicultural education and awareness ($r = .41$), appreciation of racial diversity ($r = .51$), and attitudes toward gay men ($r = -.35$; Ponterotto et al., 2002). Similarly, affective racial attitudes correlated in the expected directions with subscales of a racism scale ($r = .39$), White racial identity scores ($r = .38$), and need for social dominance ($r = -.54$). Cognitive gender attitudes also correlated in the expected directions with feminist attitudes ($r = .39$), pro-choice attitudes ($r = .45$), and continuing education in women’s issues ($r = .45$). Discriminant validity was supported for each subscale with negligible and non-significant correlations with a social desirability measure (Ponterotto et al., 1995; 2002). The QDI is presented in Appendix A.

**Clinical impression questions.** Eight questions were created to assess participants’ general clinical impression of the clients in the vignettes. The content of the questions focused on the participants’ perception of the hypothetical client in the following areas of counseling: (a) severity of problem, (b) urgency of care, (c) motivation to engage in therapy, (d) likelihood to stay in counseling, (e) expected progress, (f) number of sessions needed, (g) counselor’s comfort, and (h) confidence in working with the client. These items were adapted from Hieger’s (2007) assessment and treatment planning questions. Participants were asked to rate each question on a 7-point Likert scale, (1 was indicative of low levels and 7 was indicative of high levels of the above areas). The clinical impression items are listed in Appendix C.
**Demographic sheet.** Each participant completed a two-part demographic sheet. Part one of the demographic sheet was used to obtain personal information about the participants: gender, age, race, program of study, and completed academic coursework. Part one is presented in Appendix D. Part two, listed in Appendix E, was designed to assess participants’ perception about the influence of feedback. Participant were asked three Likert-type questions: (a) participants’ level of comfort during the study, (b) helpfulness of the feedback, and (c) the extent of influence of feedback on clinical impressions of the hypothetical client.

**Procedures**

Participants were solicited from a population of counselors-in-training, taking counseling graduate courses at one PWU. The primary investigator contacted the counseling professors and asking permission to use 10 to 15 minutes of a single class to gain consent and conduct the experiment. The professors were informed that the 10 to 15 minutes of the experiment would be divided into two parts, at the beginning of class, and then at the end of the class. The sequence of data collection was conducted the same for all participants.

At the beginning of class, the study was announced to the students. Those who agreed to participate and signed the informed consent were asked to fill out the QDI, which took no more than 10 minutes. After completing the QDI, the researchers during the remaining class time scored the measure. Ten minutes prior to the end of class, the researchers returned, gave the same participants a manila folder, containing feedback, a vignette, and post-measures. To make sure participants believed the feedback they received was connected to their own personal score they were given a manila folder in which their name was located on the folder. Inside the folder, the participant found four sets of documents in the following order: (a) feedback on the QDI, (b) a vignette, (c) the clinical impression questions, and (d) a demographic sheet. To ensure
standardization of the experiment, scripted verbal instructions were used. These instructions are contained in Appendix F. Participants were also informed that names and personal identifying information would not be collected. Any student who had already participated in the study from another counseling class was not permitted to participate a second time. Because implicit biases are likely to occur when individuals have to make decisions with a limited amount of time, a time limit was used in this study (Aberson & Ettlin, 2004; Dovidio, 2001; Greenwald & Banaji, 1995; Greenwald et al., 1998; Saucier et al., 2005). The time limit was designed to give participants sufficient time to read the instruments, but not enough time to act in a socially desirable manner, or determine the purpose of the study. The time limit was determined based on the time it took participants in the pilot study to read the measures and rate the clinical vignettes. Thus, participants were given five minutes to read their clinical vignette. Afterwards, participants were given three minutes to rate the clinical vignette by completing the clinical impressions questions. Once the three minutes concluded, participants were asked to complete the demographic sheet and then place all materials back in the envelope to be collected. Once all instruments were collected, participants were debriefed on the purpose of the study.

To minimize the potential impact of race and gender of the researchers on the outcome of the study, an attempt was made to balance these two aspects during data collection. Along with the primary investigator, an African American man, who was an advanced doctoral student, seven Caucasian research assistants (5 women, 2 men) were used to enter the classrooms and collect data. The research assistants were a combination of master’s-level (1 man and 1 woman) and doctoral-level students (1 man and 4 women). The researchers, either both Caucasians, or one Caucasian (man or woman) and the African American man, entered the classroom at the beginning of class, informed students about the study and asked who would be willing to engage
in a study examining clinical judgment in counselors-in-training. In addition to the researchers who entered the classroom, four additional African American master’s-level graduate assistants (1 man, 3 women) who did not have any contact with participants helped score the QDI.
CHAPTER IV

RESULTS

This chapter presents the results of the study, starting with the descriptive statistics. Then preliminary analyses are presented to check the accuracy of the diagnostic manipulation and to check the equivalence of the experimental groups based on demographic factors, such as gender, age, and multicultural training. In the primary analyses, the findings for the three hypotheses are reported. The chapter ends with a summary about three post-hoc analyses about participants’ reaction to the type of feedback given to them.

Descriptive Statistics

Means, standard deviations, and correlations for the dependent variables (severity, urgency, motivation, likelihood to remain in counseling, and expected progress) and the prime variable (QDI) are presented in Table 1. Scores for the dependent variables had a possible range of 1 (low rating) to 7 (high rating), with the interpretation of each based on the meaning of the concept. On average, counselors-in-training rated clients highest on expected progress in counseling \( M = 5.04; \ SD = 1.01 \) more than any of the other variables, with motivation rated the second highest \( M = 4.93; \ SD = 1.08 \), followed by likelihood to remain in counseling \( M = 4.46; \ SD = 1.21 \), and urgency of care \( M = 4.10; \ SD = 1.04 \). Participants rated the client lowest on severity \( M = 3.90; \ SD = 0.96 \). The scores of the dependent variables appeared to approximate a normal distribution, with scores showing a slight negative skew (-0.28 to -0.69) and kurtosis falling around zero (-0.31 to 0.81). Due to the number of analyses conducted, alpha level was set at .01 and the effect size (eta squared) was expected to range between .1 and .2, based on prior research about the effects of implicit bias and feedback on subsequent behavior.
Table 2

Summary of Intercorrelations, Means, and Standard Deviations for Dependent Variables, QDI Total, and Predicted Scores

<table>
<thead>
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<th>Variables</th>
<th>1</th>
<th>2</th>
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<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
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<tbody>
<tr>
<td>1. Severity</td>
<td>-</td>
<td>.66*</td>
<td>.31*</td>
<td>.21*</td>
<td>.15</td>
<td>.16</td>
<td>-.01</td>
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<td>2. Urgency</td>
<td>-</td>
<td>-</td>
<td>.24*</td>
<td>.01</td>
<td>.11</td>
<td>.15</td>
<td>-.04</td>
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<td>3. Motivation</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>.62*</td>
<td>.51*</td>
<td>.26*</td>
<td>.09</td>
</tr>
<tr>
<td>4. Remain</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>.61*</td>
<td>.17</td>
<td>.02</td>
</tr>
<tr>
<td>5. Progress</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>.11</td>
<td>-.03</td>
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<td>6. QDI Total</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>.45*</td>
</tr>
<tr>
<td>7. QDI Predict</td>
<td>-</td>
<td>-</td>
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<table>
<thead>
<tr>
<th>M</th>
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<td>1.08</td>
<td>1.21</td>
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<th>1-7</th>
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</table>

<table>
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<th>-0.39</th>
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<td>Kurtosis</td>
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<td>0.81</td>
<td>-0.08</td>
<td>0.32</td>
<td>0.13</td>
<td>0.72</td>
</tr>
</tbody>
</table>

Note. N = 193. Remain = Likelihood to remain in counseling; QDI = Quick Discrimination Index; Predict = Predicted Score. Severity, Urgency, Motivation, Remain, and Progress each had a possible range of 1 (low rating) to 7 (high rating).

*p < .01
Correlations between the dependent variables ranged from .11 to .66 (Mdn = .28). Nine of the 10 correlations were statistically significant. Participants who rated clients more severely also rated them as in need of more urgent care (r = .66; p = .001) and to be more motivated towards treatment (r = .31; p = .001). Clients who were rated more motivated toward treatment was also seen as more likely to remain in counseling (r = .62; p = .001) and expected to make more progress (r = .51 p = .001). Clients who were rated more likely to remain in counseling were also expected to have greater progress in treatment (r = .61; p = .001).

In regard to the prime, prejudicial attitudes (measured by the QDI), the total score ranged from 83 to 145 (M = 117.91; SD = 12.42). Participants’ predicted scores on the QDI had a wider range, 30 to 150, resulting in a lower average score (M = 106.70; SD = 20.01). Correlations between the two QDI scores were statically significant (r = .45; p = .001). Participants who had obtained higher scores on the QDI were also more likely to predict obtaining higher scores. The QDI total score was also found to have a statistically significant relationship with one of the dependent variables, motivation, though this relationship was low (r = .26; p = .001). Participants with higher scores on the QDI also rated clients as more motivated. The reliability estimate (Cronbach’s alpha) for the QDI total score was .86.

**Preliminary Analyses**

Preliminary analyses were conducted to (a) check the diagnostic accuracy of the clinical vignettes (clear versus ambiguous) and (b) check the equivalence of the experimental groups on background information.
Accuracy of diagnoses. Participants were asked to diagnose a clinical case, which was designed either to (a) meet the criteria for a clear diagnosis of generalized anxiety disorder, or (b) result in an ambiguous diagnosis. A higher number of participants in the clear condition was expected to give a diagnosis of anxiety disorder, while a higher number of participants in the ambiguous case was expected to give a variety of diagnoses more than anxiety. A listing of the diagnoses given for the cases is provided in Table 2. The most frequently given diagnosis regardless of the type of clinical case was anxiety (43.4%), followed by no diagnosis (15.6%), and ADHD (13.9%), with less than 10% of the participants endorsing the diagnoses of adjustment disorder, bipolar, depression, mood disorder, or a mixture of these diagnoses. The frequencies of some diagnoses were variable, with more than 20% of the expected counts less than 5, which violated the assumption of chi-square analyses (Yates, Moore, & McCabe, 1999).

Table 3
Type and Frequency of Diagnoses Given

<table>
<thead>
<tr>
<th>Type of Diagnosis</th>
<th>N</th>
<th>%</th>
<th>Type of Diagnosis</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Diagnosis</td>
<td>27</td>
<td>15.6</td>
<td>Depression</td>
<td>9</td>
<td>5.2</td>
</tr>
<tr>
<td>Adjustment Disorder</td>
<td>4</td>
<td>2.3</td>
<td>ADHD / Anxiety</td>
<td>15</td>
<td>8.7</td>
</tr>
<tr>
<td>ADHD</td>
<td>24</td>
<td>13.9</td>
<td>ADHD / Bipolar</td>
<td>2</td>
<td>1.2</td>
</tr>
<tr>
<td>Anxiety</td>
<td>75</td>
<td>43.4</td>
<td>Anxiety / Depression</td>
<td>6</td>
<td>3.5</td>
</tr>
<tr>
<td>Bipolar</td>
<td>7</td>
<td>4.0</td>
<td>Mood Disorder</td>
<td>2</td>
<td>1.2</td>
</tr>
</tbody>
</table>

Note. N = 173. There were 20 participants who did not report a diagnosis and were not included in the calculation.

To meet the assumption, the following diagnostic categories (adjustment disorder, ADHD, bipolar, depression, mood disorder, and any mixed diagnoses) were collapsed into one category of “other.” Thus, responses were recoded into the following three categories (a) no diagnosis, (b) anxiety, and (c) other. Three two-way contingency analyses, one for each independent variable (Feedback, Clarity, and Race) were conducted on the diagnoses given by
participants. Clarity was the only analysis that was statistically significant: Clarity - $X^2 (2) = 55.65, p = .001$; Feedback - $X^2 (4) = 1.89, p = .76$; Race - $X^2 (2) = 1.44, p = .49$. Participants who rated the clear case gave a diagnosis of anxiety most frequently ($n = 62, 71\%$), followed by other ($n = 16, 18\%$), and no diagnosis ($n = 9, 10\%$). Participants who rated the ambiguous case gave a diagnosis of other ($n = 50, 58\%$) most frequently, followed by no diagnosis ($n = 23, 27\%$), and anxiety ($n = 13, 15\%$). Thus, the manipulation of the clarity of cases appeared to work, with the majority of participants in the clear condition giving the case a diagnosis of anxiety, whereas the majority of the participants in the ambiguous condition gave the case either no diagnosis or a diagnosis other than anxiety. As designed, the type of feedback, or the race of the clinical case, was not associated with the diagnoses given.

**Background information.** A series of analyses were also conducted to examine whether the participants in the conditions systematically varied on pertinent background information. The variables examined were age, gender, exposure to multicultural and psychopathology courses, and QDI scores.

A three-way ANOVA was conducted on whether the conditions of the vignettes (clarity, race, and feedback) differed on age. Homogeneity of variance was violated by Levene’s test ($F (11, 177) = 2.01, p = .03$). To identify and address this violation, sample size and variance by cell were examined. A ratio between the largest ($n = 20, M = 29.55, SD = 8.58$; negative feedback, African American, ambiguous condition) and smallest cell sizes ($n = 11, M = 34.64, SD = 11.33$; negative feedback – African American – clear condition) was greater than the recommended value of 1.5 (1.81; Bradley, 1978). All other cell sizes ranged between 14 to 17. Furthermore, two other conditions had disproportional variance (negative feedback – African American – clear condition, $n = 11, M = 34.64, SD = 11.33$; positive feedback – African American – clear condition, $n = 11, M = 34.64, SD = 11.33$; positive feedback – African American – ambiguous condition, $n = 10, M = 34.64, SD = 11.33$; positive feedback – Caucasian American – ambiguous condition, $n = 10, M = 34.64, SD = 11.33$).
American – clear vignette, \( n = 15, M = 33.47, SD = 10.92 \) in comparison to other conditions that ranged from 4.84 to 9.31. In most instances, these conditions had smaller sample sizes, which increased the likelihood of obtaining statistically significant finding, when a difference may not exist (Field, 2013). Given the limited options to correct a factorial ANOVA (remove cases), the test was still performed, keeping in mind the potential problems in interpreting the findings. All main effects were not statistically significant as well as most of the interaction effects. However, one interaction effect, Race x Clarity of vignette, based on the imbalance of variance and sample size, was statistically significant \( (F(1, 177) = 8.20, p = .005) \). This interaction is depicted in Figure 2 below. Under the clear condition, those who received the African American vignette were on average older \( (M = 32.6) \) than those who received the Caucasian vignette \( (M = 27.8) \); however, under the ambiguous condition, those who received the Caucasian vignette were older \( (M = 30.6) \) than those who received the African American case \( (M = 28.98) \). However, it is possible that this finding is an artifact due to the violation of HOV, but as a precaution, age was treated as a covariate in the primary analyses. A summary of this ANOVA is listed in Appendix G.

A two-way contingency table analysis was conducted on gender and each of the three independent variables, (a) Feedback (2 x 3), (b) Clarity (2 x 2), and (c) Race (2 x 2) to determine whether an equivalent or proportional number of men and women were at each level of the independent variable. All analyses were not statistically significant: Feedback – \( \chi^2(2) = 4.21, p = .12 \); Clarity – \( \chi^2(1) = 3.34, p = .067 \); Race - \( \chi^2(1) = .137, p = .71 \). In general, women \( (n = 156) \) outnumbered men \( (n = 36) \) throughout the study, and consistently outnumbered men across all conditions.
Three 2-way contingency table analyses were also conducted on the number of participants who had taken (a) a single multicultural counseling course and (b) a psychopathology course by each independent variable. Examination of these two courses was to determine whether the number of participants in the conditions were equivalent in the acquired knowledge about culture and psychopathology. For the multicultural course, none of the analyses were statistically significant: Feedback – $\chi^2 (4) = 5.69, p = .22$; Clarity – $\chi^2 (2) = 4.75, p = .093$; Race – $\chi^2 (2) = .34, p = .84$. The majority of participants reported that they had already completed a multicultural counseling course ($n = 125; 65.1\%$), followed by those who had not taken the course ($n = 64, 33.3\%$), and those who were enrolled in the course at the time of the study ($n = 3, 1.6\%$).

None of the contingency analyses for the three independent variables and the psychopathology course was statistically significant: Feedback – $\chi^2 (4) = .89, p = .93$; Clarity – $\chi^2 (2) = .157, p = .92$; Race – $\chi^2 (2) = 1.25, p = .536$. The majority of participants reported they

\[\text{Figure 2. Graph of the interaction between clarity and race of the vignette based on participants reported age. } N = 189.\]
had not taken the course ($n = 100, 52.4\%$), followed by those who had taken the course ($n = 80, 41.9\%$), and then those who were enrolled in the course ($n = 11; 5.8\%$) at the time of the study.

The final set of preliminary analyses involved the QDI. Three three-way ANOVAs were conducted on participants’ actual QDI scores, participants’ predicted QDI scores, and the difference between the actual QDI and predicted scores (QDI difference) with the independent variables of feedback, clarity, and race. Homogeneity of variance was supported for all three analyses: actual QDI Levene’s Test ($F (11, 181) = 1.03, p = .42$); predicted QDI, Levene’s Test ($F (11, 166) = 1.47, p = .15$); QDI difference Levene’s test ($F (11, 166) = 1.32, p = .22$). None of the analyses were statistically significant. A summary of these findings is listed in Appendix H.

**Primary Analysis**

Three hypotheses guided this study. The first hypothesis focused on feedback having a main effect on the evaluation of a clinical case, regardless of the race or clarity of the case. The second and third hypotheses both focused on the presence of an interaction between feedback, race, and clarity of diagnosis on participants’ clinical impressions of a client. The second hypothesis focused on the interaction of feedback and race, whereas the third hypothesis focused on the interaction of all three independent variables. An experimental design was used to test each hypothesis, with the following independent variables being manipulated: (a) feedback type, (b) race of client, (c) and clarity of vignette. The clinical impressions of a client was measured by ratings on several dependent variables: (a) severity, (b) urgency, (c) motivation, (d) likelihood remaining in therapy, and (e) prognosis. A one-way multivariate analysis of variance (MANOVA) was used to test all hypotheses instead of using several ANOVA’s. A MANOVA was used due to the multiple dependent variables, the relationship between them, and the need to reduce the likelihood of committing a Type I error (Field, 2013).
Clinical assessment. A 3x2x2 MANOVA was conducted on the linear composite of the five dependent variables (i.e., severity, urgency, motivation, likelihood to remain in counseling, and progress) based on the factors of feedback (i.e., none, negative, or positive), clarity of vignette (i.e., clear or ambiguous) and race of the client (i.e., Caucasian or African American). Initially, a MANCOVA was run with the same variables with age as the covariate, but age was not statistically significant as a main effect or as part of an interaction effect. Furthermore, findings of the MANCOVA were the same as the MANOVA described above. Thus, the findings of the MANOVA were reported. The Box’s M test was not statistically significant, providing support for the homogeneity of covariance across groups. One of the three main effects was statistically significant: Feedback - Wilk’s λ = .87, F (10, 354) = 2.52, p = .006, ηp² = .07; Clarity - Wilk’s λ = .94, F (5, 177) = 2.41, p = .04, ηp² = .06; Race - Wilk’s λ = .96, F (5, 177) = 1.41, p = .22, ηp² = .04. None of the interaction effects were statistically significant: Feedback x Clarity - Wilk’s λ = .97, F (10, 354) = 0.47, p = .91, ηp² = .01; Feedback x Race - Wilk’s λ = .96, F (10, 354) = 0.74, p = .68, ηp² = .02; Clarity x Race - Wilk’s λ = .97, F (5, 177) = 1.24 p = .29, ηp² = .03; Feedback x Clarity x Race - Wilk’s λ = .95, F (10, 354) = 0.89, p = .54, ηp² = .03.

Follow-up analysis on type of feedback. A descriptive discriminant analyses (DDA) was conducted to interpret the linear composite of the dependent variables for the main effect of feedback. For the effect of feedback, two discriminant functions emerged but only the first function was statistically and practically significant, Wilk’s λ = .882, X² (10) = 23.70, p = .008, R₁² = .116. An examination of the standardized function coefficients on the first function indicated that likelihood to remain in counseling contributed to the variate, as well as urgency of care, and the client’s level of motivation. The structure coefficients indicated that urgency of
care shared approximately 38% of its variance to the function, followed by remaining in
counseling ($s^2 = .33$), and severity of client’s problem ($s^2 = .17$). Clients whose conditions were
considered higher in severity were also perceived as in need of more urgent care and to more
likely remain in counseling. These variables seemed to refer to the key criteria in determining
the expected prognosis and need for mental health treatment of a client. Thus, this discriminant
function was labeled in Need of Mental Health Care. The group centroids on this variate for the
three feedback groups ranged from .38 (Negative) to -.48 (Positive; $Mdn = .10$ [Control]).
Participants who were given positive feedback on the QDI evaluated their clients lower on need
for mental health care than those who received negative feedback. Participants who received no
feedback scored in the middle. A summary of the DDA is presented in Table 4 and the pattern of
the centroids plotted on the function is graphically depicted in Figure 3.

**Post-Hoc Analyses**

Post-hoc analyses were conducted on participants’ scores on three questions about the
study: (a) How comfortable did you feel during the study (b) How helpful was the feedback you
received, and (c) Did the feedback influence your decision? Each question was labeled as the
following construct, respectively: (a) Comfort, (b) Helpfulness, and (c) Influence. The questions
had a possible range from 1 (low) to 7 (high), with the interpretation based on the meaning of the
question.

**Descriptive statistics.** Means, standard deviations, range, skew, kurtosis, range and
correlations for the three variables are presented in Table 4. The range of the scores was six for
all variables. Of the three variables, comfort had the highest average score ($M = 5.97; SD =
1.26$), followed by helpfulness ($M = 3.87; SD = 2.08$) and then influence ($M = 2.82; SD = 1.81$).
Correlations ranged from -.10 to .36, with two of three statistically significant, though the effect
Table 4
Standardized Function and Structure Coefficients for DDA of Clinical Assessment Variables Based on Type of Feedback

<table>
<thead>
<tr>
<th></th>
<th>DDA 1 for Type of Feedback</th>
<th></th>
<th>Function 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Function 1</td>
<td>Function 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$B$</td>
<td>$s$</td>
<td>$B$</td>
<td>$s$</td>
</tr>
<tr>
<td>Severity</td>
<td>.06</td>
<td>.62</td>
<td>.35</td>
<td>.58</td>
</tr>
<tr>
<td>Urgency</td>
<td>.63</td>
<td>.57</td>
<td>.31</td>
<td>.04</td>
</tr>
<tr>
<td>Motivation</td>
<td>-.66</td>
<td>.09</td>
<td>.15</td>
<td>.63</td>
</tr>
<tr>
<td>Remain</td>
<td>1.11</td>
<td>.41</td>
<td>-.74</td>
<td>.60</td>
</tr>
<tr>
<td>Progress</td>
<td>-.34</td>
<td>.04</td>
<td>.93</td>
<td>.34</td>
</tr>
<tr>
<td>$R^2$</td>
<td></td>
<td>.12</td>
<td></td>
<td>.01</td>
</tr>
</tbody>
</table>

Note. $N = 193$. Statistically significant function is in bold. Remain = likelihood to remain in counseling. $B =$ standardized coefficient, $s =$ structure coefficient.

sizes were small to medium. Participants who reported feeling more comfortable during the study also rated the feedback to be more helpful ($r = .22; p = .004$), and participants who rated the feedback as more helpful also reported the feedback as having greater influence on their decisions ($r = .36; p = .001$).

**Comfort.** A 3x2x2 ANOVA was conducted on the level of comfort participants reported during the study based on the independent variables. Homogeneity of variance was not met, Levene’s test $F (11, 180) = 1.97, p = .034$. One of the three main effects was statistically significant, but none of the interaction effects: Feedback ($F (2, 180) = 9.76, p = .001, \eta_p^2 = .10$); Clarity ($F (1, 180) = 6.83 p = .032, \eta_p^2 = .03$); Race ($F (1, 180) = .36, p = .55, \eta_p^2 = .002$).
Figure 3. Graph of centroids for type of feedback on the discriminant function analysis of the clinical assessment variables. \( N = 193 \). Positive scores on the function indicate more need for mental health care and negative scores indicate less need for mental health care. Positive feedback is linked to lower need for care, and vice versa for negative feedback.

Feedback x Clarity - \((F(2, 180) = 0.87, p = .42, \eta^2_p = .01)\), Feedback x Race - \((F(2, 180) = 1.11, p = .33, \eta^2_p = .01)\), Clarity x Race - \((F(1, 180) = 1.51, p = .22, \eta^2_p = .01)\); Feedback x Clarity x Race - \((F(2, 180) = 0.03, p = .97, \eta^2_p = .001)\).

To adjust for this violation, one-way ANOVA using the Brown-Forsythe test was conducted on comfort level with feedback as the factor. Homogeneity of variance was still not met, Levene’s test \((F(2, 189) = 6.60, p = .002)\). However, the finding was still statistically significant with the adjustment to offset the violation, Feedback – Brown-Forsythe \((F(2, 173.57) = 8.52, p = .001, \eta^2_p = .08)\). Dunnett T3, a post analysis for unequal variance, was conducted to compare types of feedback on participants’ comfort level. These findings indicated that there was a significant effect for level of comfort reported, based on the type of feedback received (control versus negative feedback, \( p = .001 \); negative versus positive feedback, \( p = .002 \)). Thus, participants who received negative feedback on average reported lower levels of comfort during
Table 5

Descriptive Statistics and Intercorrelations for the Variables of Comfort, Helpfulness, and Influence

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Comfort</td>
<td>-</td>
<td>.22*</td>
<td>-.10</td>
</tr>
<tr>
<td>2. Helpfulness</td>
<td>-</td>
<td>-</td>
<td>.36*</td>
</tr>
<tr>
<td>3. Influence</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>M</td>
<td>5.97</td>
<td>3.87</td>
<td>2.82</td>
</tr>
<tr>
<td>SD</td>
<td>1.26</td>
<td>2.08</td>
<td>1.81</td>
</tr>
<tr>
<td>Range</td>
<td>1-7</td>
<td>1-7</td>
<td>1-7</td>
</tr>
<tr>
<td>Skew</td>
<td>-1.24</td>
<td>0.05</td>
<td>0.65</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>1.21</td>
<td>-1.24</td>
<td>-0.71</td>
</tr>
<tr>
<td>N</td>
<td>192</td>
<td>174</td>
<td>174</td>
</tr>
</tbody>
</table>

Note. Comfort = comfort level during the study; Helpfulness = helpfulness of feedback; Influence = influence of feedback on decision. Scores ranged from 1 (low) to 7 (high) based on the meaning of the question. *p < .01.

the study (M = 5.46) in comparison to participants who received no feedback (M = 6.29), or positive feedback (M = 6.16).

Helpfulness. A 3x2x2 ANOVA was conducted to assess how helpful was the feedback. Homogeneity of variance was met, Levene’s test (F (11, 162) = .79, p = .65). Feedback was the only statistically significant main effect, (F (2, 162) = 18.49, p = .001, ηp² = .19); Clarity (F (1, 162) = 0.03, p = .86, ηp² = .001); Race (F (1, 162) = 0.23, p = .63, ηp² = .001); Feedback x Clarity - (F (2, 162) = 0.04, p = .96, ηp² = .001); Feedback x Race - (F (2, 162) = 0.14, p = .87, ηp² = .002); Clarity x Race - (F (1, 162) = 0.82, p = .37, ηp² = .005); Feedback x Clarity x Race - (F (2, 162) = 0.53, p = .59, ηp² = .007). Bonferroni post hoc analysis revealed that there was a
significant effect for level of helpfulness reported, based on the type of feedback received (control versus positive feedback, \( p = .001 \); negative versus positive feedback, \( p = .001 \)). These findings reveal that participants who received positive feedback on average reported the feedback was more helpful (\( M = 5.00 \)) than receiving negative feedback (\( M = 2.94 \)) or no feedback at all (\( M = 3.61 \)).

**Influence.** A 3x2x2 ANOVA was conducted to assess participants’ perception of the influence of feedback on decision-making. Homogeneity of variance was met, Levene’s test (\( F (11, 162) = 1.64, p = .09 \)). There were no statistically significant effects at the alpha level of .01, but feedback just barely exceeded the alpha; thus, it was still interpreted: Feedback - (\( F (2, 162) = 4.23, p = .016, \eta_p^2 = .05 \)); Clarity (\( F (1, 162) = 1.15, p = .29, \eta_p^2 = .007 \)); Race (\( F (1, 162) = 0.76, p = .39, \eta_p^2 = .005 \)); Feedback x Clarity - (\( F (2, 162) = 0.96, p = .39, \eta_p^2 = .01 \)); Feedback x Race - (\( F (2, 162) = 0.25, p = .78, \eta_p^2 = .003 \)); Clarity x Race - (\( F (1, 162) = 1.37, p = .24, \eta_p^2 = .008 \)); Feedback x Clarity x Race - (\( F (2, 162) = 0.45, p = .64, \eta_p^2 = .006 \)). The effect size for feedback was smaller than expected, but a post-hoc analysis was still conducted to examine the unique differences based on feedback. Bonferroni post hoc analysis revealed that there was a significant effect for level of influence, based on the type of feedback received (control versus negative feedback, \( p = .01 \)). These findings reveal that participants who received negative feedback on average reported the feedback was more influential on their decision-making (\( M = 3.19 \)) than not receiving any feedback (\( M = 2.09 \)).
CHAPTER V

DISCUSSION

In this chapter, the results will be discussed. The discussion is organized by hypothesis. After examining the meaning of the findings, the limitations of the study will be presented, followed by implications for practice, and recommendations for future research.

Overview

This study examined whether exposing a majority of Caucasian women counselors-in-training to positive and negative feedback about their cultural attitudes would affect the presence and influence of implicit racial biases in clinical judgment. Implicit racial bias was defined as cultural and stereotypical attitudes or cognitions that are absent from one’s awareness, resulting in misattributions and errors in decision-making (Greenwald & Banjai, 1995; Greenwald & Krieger, 2006). Misattributions and errors from such bias are more likely to be exhibited in ambiguous situations where social norms and appropriate responses are weak or unknown (Dovidio, 2001; Gaertner & Dovidio, 2005). Based on this definition, implicit racial bias was examined by creating two clinical cases, which differed in race and diagnostic clarity. One case met criteria for a generalized anxiety disorder (clear), and the other case did not meet diagnostic criteria for any disorder (ambiguous). The two clinical cases (ambiguous or clear) also differed only in the race of the client (African American or Caucasian). Therefore, an implicit racial bias in clinical evaluations was expected to emerge in trainees’ ratings of the African American and Caucasian ambiguous vignette, but no racial differences in evaluations were expected in clear vignette. Furthermore, to analyze whether cultural feedback influenced the impact of implicit
bias on decision-making, some participants were primed with positive or negative feedback prior to reviewing the vignettes and completing the clinical evaluations.

Three hypotheses guided this study. The first hypothesis focused on the influence of priming positive and negative feedback about cultural attitudes on the evaluation of a clinical case, regardless of the race or clarity of the case. The second and third hypotheses both focused on the presence of an interaction between feedback, race, and clarity of diagnosis on participants’ clinical impressions of a client. The second hypothesis focused on the interaction of feedback and race, whereas the third hypothesis focused on the interaction of all three independent variables. As shown in Chapter 4, none of the hypotheses were supported; however, a main effect for feedback was found, but in the opposite direction as hypothesized.

**Hypothesis One**

For the first hypothesis, it was expected that counselors-in-training who took the Quick Discrimination Index (QDI; Ponterotto et al., 2002) and received bogus positive feedback about their presumed level of prejudicial and cultural attitudes would demonstrate an overconfidence bias by rating their clients more negatively and giving a worse prognosis than participants who received negative or no feedback, regardless of race or clarity of diagnosis. The results did not support this hypothesis; the opposite was found. Participants who received positive feedback about their cultural attitudes gave clients a better prognosis. Specifically, primarily Caucasian women counselors-in-training who had received positive feedback rated the clients’ problems less in severity, in need of less urgent care, and less in need of counseling compared to those trainees who received negative feedback. Thus, the type of cultural feedback given to the trainees influenced how trainees saw a clinical case.
The current findings aligns with previous research on the effect of feedback in two areas, (a) subsequent behavior and (b) attitudinal states. Prior research (Kluger & DeNisi, 1996) has shown that feedback has the potential to influence subsequent behavior in areas such as future performance and decision-making. In addition to influencing subsequent behavior, feedback can also change the attitudinal state (e.g., confidence, anxiety, self-efficacy) of those who receive feedback (Bernstein & Lecomte, 1979; Cianci et al., 2010; Kluger & DeNisis, 1996; Raferty & Bizer, 2009). These outcomes of providing feedback differ based on the type of feedback given. Whereas positive feedback is more likely to improve future performance and create a sense of comfort, negative feedback has also shown a tendency to improve performance but also hinder performance and create a sense of unease and insecurity as well (Bernstein & Lecomte, 1979; Cianci et al., 2010; Daniel & Larson, 2001; Kluger & DeNisis, 1996; Means & Means, 1971; Raferty & Bizer, 2009). Yet, providing feedback does not guarantee these results. When the feedback is deemed as credible and connected to one’s performance, it has been shown to increase the likelihood of influencing subsequent behavior (Daniels & Larson, 2001; Hattie & Temperely, 2007; Rousseau & McKelvie, 2009; Sitzmann & Johnson, 2012).

The current findings add to the literature on feedback of participants’ responses by using a conceptual prime of positive and negative cultural feedback. Trainees’ clinical evaluations did differ based on receiving positive or negative cultural feedback, providing additional support for prior research that the type differentially influences subsequent behavior. This study differed from prior studies in that it did not follow a pre and post-test design or assess improvement in subsequent performance. Therefore, it cannot be concluded whether the type of feedback improved performance, or led to a more accurate clinical evaluation. Instead, the current
findings add to the literature, in that manipulating positive and negative feedback about cultural
and prejudicial attitudes can influence subsequent behavior in the clinical evaluation of clients.

Post-hoc findings were similar to prior results on how positive and negative feedback is
received. Prior research (Bernstein & Lecomte, 1979; Daniels & Larson, 2001; Kluger &
DeNisis, 1996; Raferty & Bizer, 2009) has found that the type of feedback may affect internal
states. For example, negative feedback is more likely to result in increased anxiety, and
decreased levels of comfort, agreement, and helpfulness on future tasks in comparison to positive
feedback. Counselors-in-training reported positive feedback as more comforting and helpful
compared to negative feedback. The finding illustrates a preference and relief from trainees to
receive positive feedback, as it may be less threatening to receive than negative feedback,
especially cultural feedback. Because the feedback in this study was bogus, it should be noted
that counselors-in-training might have received cultural feedback about their prejudicial attitudes
that was congruent or incongruent to their actual mindset. Therefore, a possible alternative to
these findings might have emerged where providing congruent or incongruent cultural feedback
may have influenced the findings as well.

An explanation for the main effect finding of feedback could be that the type of feedback
created a mood congruency effect. Mood congruency is a phenomenon where individuals who
experience situations or stimuli that place them in a positive or negative mood seek out
information that maintains the valence of their mood and demonstrate behaviors and judgments
that are congruent with their mood (Bower, 1991; Mayer, Gaschke, Braverman, & Evans, 1992).
For example, when individuals have experienced positive or negative information about
themselves, researchers (Bower, 1991;Forgas, 1995; Mayer et al., 1992) have found that these
same individuals have judged other people and situations similarly. A similar finding may have
occurred in the current study; a majority of Caucasian women counselors-in-training could have been influenced by the valence of the feedback received and viewed a clinical case in the same confirming manner. Thus, after receiving positive or negative feedback trainees may have been placed in a mood that influenced their clinical judgment, leading to ratings that maintained or matched the mood that the feedback placed them in.

**Hypotheses Two and Three**

The second hypothesis was whether participants who received positive cultural feedback would rate an African American clinical case more negatively than a Caucasian case, regardless of diagnostic clarity in comparison to those who received either negative or no cultural feedback. For the third hypothesis, it was expected that trainees who received positive cultural feedback and rated an African American clinical case under ambiguous diagnostic conditions would rate the client more negatively compared to participants who received either negative or no cultural feedback and rated an ambiguous client. Neither, an interaction effect for feedback and race, nor a three-way interaction effect between feedback, race, and clarity of a clinical case was found. Therefore, hypothesis two and three were not supported.

The lack of support for these two hypotheses may have been a result of several factors. First, implicit racial bias may not have occurred because the sample of primarily Caucasian women counselors-in-training may have not held any implicit racial biases towards Caucasian and African Americans. In addition, the trainees were all recruited from the same graduate training program, which has a strong emphasis on multicultural training. That training may have affected participants’ ratings. Second, priming all participants with the QDI, a cultural measure, which asks questions about one’s prejudicial and social attitudes, could have affected the occurrence of implicit bias. Even though the control group participants did not receive feedback
about their performance on the QDI, they were still exposed to the QDI. Thus, another control group who was not primed with the QDI needed to have been included in the design. By having all participants complete the QDI prior to reviewing a clinical case, trainees may have been primed by the questions and nature of the QDI to act in a socially desirable manner, with cultural awareness primed by the measure. Thus, the culture was not longer an implicit variable, but an explicit one.

It is also possible that the elapse of time between the prime, feedback, and evaluation of the client may have affected the outcome. All participants took the QDI at the onset of class, but did not receive the feedback or the case until the end of class. Most of these classes were approximately three hours in length. Therefore, approximately two and half-hours elapsed between receiving the prime, the feedback, and the case. After taking the QDI, participants had time to evaluate their performance and the nature of the QDI. Thus, the amount of time elapsed might have allowed participants to regulate their responses to subsequent information. Participants could have masked their true response or compensated by giving equally favorable ratings to the African American and Caucasian clients. Previous studies of implicit racial bias (Abreu, 1999; Boysen & Vogel, 2008; Castillo et al., 2007; Devine, 1989) have used methods such as priming or the IAT, where participants had little time to make decisions. For example, Boysen and Vogel (2008) used a pen and paper version of the IAT that only gave participants 20 seconds per page to answer questions. Abreu (1999) and Devine (1989) used a priming method, in which participants where primed with stereotypical words one at a time at the speed of 80 milliseconds to activate information processing outside of the participants’ awareness. In contrast, participants in the current study were given 10 minutes to complete the QDI, then a
total of about two and half-hours of class time occurred, five minutes to read the clinical vignette, and finally three minutes to rate the clinical case.

Trainees may have had ample time to think about the questions of the QDI and infer its nature, which may have also influenced their view of the clinical case. When Caucasian individuals have ample time to not act in a discriminatory manner, have knowledge of being evaluated, and can clearly see race in the context of their decisions, they tend to not act discriminatory whether they hold biases or not (Aberson & Ettlin, 2004; Dovidio, 2001; Saucier et al., 2005).

In summary, several factors may have had an impact on testing hypotheses two and three. The sampled counselors-in-training may have not demonstrated an implicit racial bias or may have found a way to curb or mask their prejudicial attitudes. Two design issues were addressed, as possible explanations as to how Caucasian trainees may have been able to mask their biases. One, a control group who did not receive the cultural prime was absent in the design. A no prime or a neutral prime condition would have helped clarify the effect of a cultural prime. Two, implicit bias may not have been activated due to the amount of time elapsed between the cultural prime, feedback, and the evaluation of cases. Using classroom time allowed for ease in data collection, and ensured obtaining a sufficient sample size. However, this process affected the use of time. Doing this study electronically would have given participants less time to think about the content, providing the opportunity to test for implicit bias.

**Limitations**

There were two primary limitations in the study. One limitation was the nature of the sample. A majority of the participants identified as Caucasian females. Few men and racial/ethnic minorities were in the sample or in the population from which the sample was
drawn. Thus, these findings may not generalize to a diverse population of counselors-in-training. Furthermore, all participants were sampled from the same graduate program, which has a strong emphasis on multicultural counseling. The graduate program may be unique in comparison to other programs insofar as it requires all graduate students to complete at least one multicultural counseling course, and emphasizes multicultural competency in recruitment materials and advertisement of the program. Therefore, these students may not be representative of master’s level programs and counselors-in-training in other regions of the United States.

Another limitation may have been the methodological design to induce implicit bias and its measurement. A number of methods have been used to induce or measure implicit bias: (a) computerized measures, such as the IAT (Greenwald et al., 1998), (b) paper and pencil measures, such as the manual adaptation of the IAT (Lowery et al., 2001), (c) physiological measures (e.g., cardiovascular responses, EMG, or fMRI; Gaertner & Dovidio, 1977), or (d) experimental manipulation (Dovidio & Gaertner, 2000; Frey & Gaertner, 1986). The computerized IAT version is one of the best methods to uncover implicit bias (Boysen, 2009; Greenwald et al., 2009); however, it was not possible to use this procedure for the current study. Instead, an experimental approach was taken in which clinical vignettes were created that varied in clarity of diagnosis (i.e., clear and ambiguous) and race (i.e., African American and Caucasian). It was expected that implicit racial bias would be triggered due to the combined manipulation of race and diagnostic clarity, where how to respond based on social norms was not clear (Dovidio, 2001; Gaertner & Dovidio, 2005). This approach of manipulating race and clarity of situations is supported by prior studies (Aberson & Ettlin, 2004; Dovidio, 2001; Saucier et al., 2005) showing Caucasians acting in non-discriminatory manners when they were clearly able to see race in the context of making decisions.
Preliminary analysis in this study revealed the two clinical cases exhibited a difference in clarity, with the clear case reflective of anxiety, and the ambiguous case reflective of various diagnoses. It is unclear whether the manipulation of race in the context of the diagnostic criterion of the clinical vignettes was sufficient to evoke unconscious bias. Furthermore, it is also possible that the use of a vignette, despite the manipulations, was not realistic enough to evoke unconscious bias. Past researchers (Cooper et al., 2012; Hieger, 2007; Lopez, 1989) have argued unconscious biases demonstrated by clinicians may more likely manifest in real interactions between clients and counselors (e.g., level of intimacy, supportive comments, frequency of empathy responses, and time limits in sessions) rather than in rating clinical vignettes.

Finally, as previously noted, all participants took the QDI and thus were primed to think about their prejudices and social attitudes. A control group that did not take the QDI but still rated the same clinical vignettes was not used. Therefore, it is possible completing the QDI alerted participants to the nature of the study, resulting in responding in a socially desirable manner. As such, participants may have curbed their biases. As a result, using a cultural prime may have diluted or confounded the manipulation of implicit bias.

Implications for Practice

The findings of this study provide empirical support and build on prior studies in demonstrating that receiving positive or negative feedback can influence subsequent behavior (Kluger & DeNisis, 1996) and the type of feedback received can also be viewed differently in the context of comfort and helpfulness (Bernstein & Lecomte, 1979; Cianci et al., 2010; Daniels & Larson, 2001; Means & Means, 1971). These findings contribute to the literature not only by reminding supervisors that giving feedback to trainees is a critical aspect of developing clinical
skills, but also by revealing that giving positive and negative cultural feedback has an affect on the clinical evaluations of clients. Specifically, trainees who received positive or negative cultural feedback rated their clinical case differently than those who did not receive any feedback.

This finding is illuminating for both counselors and supervisors in that the type of feedback received may have an impact on how future clients may be evaluated and subsequently treated. As such, cultural feedback could lead to differences in how trainees view a client’s symptomology, prognosis, treatment planning, and motivation towards treatment. Prior research on counselor’s decision-making has noted that when counselors focus on a single salient aspect of the client or themselves (such as feedback), it can lead to errors in decision-making, such as over-pathologizing a client’s symptomatology (Dawes, 1989; Spengler et al., 1995). However, in this study, the most that can be concluded is that receiving positive or negative cultural feedback had an influence on the subsequent clinical evaluation of a clinical case. It cannot be concluded that the cultural feedback helped trainees give a more accurate, unbiased assessment, or whether feedback could have potentially led to over- or under-pathologizing clients based on the feedback received. However, it is possible that these differences in clinical evaluations may have occurred due to trainees paying significant attention to the cultural nature of the feedback received.

When receiving cultural feedback, it may be important to trainees to not be seen as biased or having prejudicial attitudes. Prior research (Boysen, 2009; Boysen & Vogel, 2008) shows counselors and trainees often hold a desire to not be seen as biased or holding prejudicial attitudes. Thus, trainees may act in a socially desirable manner and seek feedback that confirms their desire to be seen without prejudice or bias. In the current study, an attempt was made to
bypass these desires by providing trainees with bogus positive or negative feedback about their prejudicial attitudes. That feedback was experienced differently. Similar to prior findings on feedback, (Daniels & Larson, 2001; Kluger & DeNisis, 1996), participants considered the positive feedback about their prejudicial attitudes and biases as more comforting and helpful than participants who received negative feedback. Therefore, such an experience led to variation in viewing and evaluating a clinical case, regardless of race and clarity of the problem.

To curb the risk of inaccurately evaluating clients, it is recommended that supervisors and training programs be mindful of the influence that positive and negative feedback about prejudicial and social attitudes can have on trainees, especially when they are currently working with clients. It may be beneficial for trainees to process the feedback with supervisors immediately, and discuss its potential influence on their work with clients. Trainees may also need sufficient time after receiving positive or negative feedback about their cultural attitudes to internally process their feelings and reactions before seeing clients.

**Future Research**

Based on the results of this study, there are several directions for future research. First, a replication and extension of this study is needed to establish the reliability of its findings and generalizability to other samples of counselors-in-training. Future research would also benefit from sampling trainees who vary in age, gender, and race. Unique differences may exist for the influence of priming various types of feedback when participants are men, older, or racial minorities. Similar to previous studies examining implicit racial bias in counselors-in-training (Boysen & Vogel, 2008; Castillo et al., 2007; Katz & Hoyt, 2014) the majority of participants in the current study were Caucasian women. Future researchers should continue to explore the presence of implicit racial bias in trainees, but also question the generalizability of findings when
the samples continue to collect findings from a majority of Caucasian women. If future studies continue to sample from PWUs, where it is likely that the majority of counselors-in-training will be Caucasian women, then findings on the presence and effects of implicit racial bias will remain limited, and researchers will be unable to make conclusions whether racial minorities and men are also likely to demonstrate the same racial implicit bias. Therefore, researchers should deliberately attempt to sample from diverse populations of counselors-in-training. If researchers are unable to access trainees from diverse training programs, then researchers may also want to examine and take into consideration the unique characteristics of Caucasian women in their findings. For example, Caucasian women are more likely to demonstrate empathy, awareness, and guilt towards racial minorities regarding racism and acknowledge their privilege in comparison to Caucasian men (Pope-Davis & Ottavi, 1994; Spanierman, Beard, & Todd, 2012).

In addition, Caucasian women in college are more likely than Caucasian men to promote social justice, enroll in diversity courses, and interact with diverse groups (Gurin, Dey, Hurtado, & Gurin, 2002; Spanierman et al., 2012; Zuniga, Williams, Berger, 2005). Due to these findings, consideration should be given to the continued sampling of Caucasian women, and differences that may arise in findings, or the lack of findings, of racial bias in comparison to Caucasian men and/or racial minorities. Future researchers may also want to examine whether specific intersections between gender and racial/ethnic implicit bias are more likely to occur in a sample of Caucasian women trainees and affect ratings of a clinical case that differs in the race and gender of the client (i.e., Caucasian woman or man, or a Caucasian woman and African American woman).

Future research is also needed in understanding the impact of priming positive and negative cultural feedback on clinical decision-making for a hosts of issues (e.g., treatment
recommendations, number of sessions, diagnoses given). Future research is needed to continue exploring (a) the overall effects of providing feedback, (b) the influence of priming prejudicial and social attitudes, and (c) the unique combination of providing cultural feedback that is positive and negative on subsequent behavior to further understand how supervisors can appropriately give positive and negative cultural feedback without leading to errors in clinical judgment. In addition, researchers should also continue exploring how cultural feedback influences trainees, and whether the valence of the cultural feedback may create mood congruent states, which in turn, influence clinical judgment.

This study also has methodological and measurement implications for future research. Clinical vignettes were used wherein the race and clarity of diagnosis were manipulated to assess implicit racial biases. Future studies are needed to continue assessing the effectiveness of experimental conditions, where clinical vignettes are used. Various studies (Aberson & Ettlin, 2004; Dovidio, 2001; Saucier et al., 2005) in a range of contexts (i.e., political, hiring practices, helping behaviors) have found implicit bias using experimental methods; however, a majority of studies that have found implicit racial biases with counselors and counselors-in-training have used either priming methods or some version of the IAT (Boysen, 2009; Boysen, 2010). In addition, some researchers (Cooper et al., 2012; Hieger, 2007; Lopez, 1989) have argued that biases may be less likely to occur in clinical vignettes, but rather, more likely found in real life interactions. Therefore, future studies are needed to continue exploring how to accurately assess implicit racial biases in counselors and trainees with real clients, or when a version of the IAT is not possible to use.

Finally, while attention has been given to uncovering and understanding implicit biases in counselors, there is a lack of literature examining interventions designed to mitigate the impact
of implicit bias. Previous studies (Abreu, 1999; Boysen & Vogel, 2008; Castillo et al., 2007; Devine, 1989; Katz & Hoyt, 2014) have found that counselors hold racial implicit biases. However, only one study (Castillo et al., 2007) used and found an intervention consisting of a multicultural training course to change implicit biases. If implicit racial biases continue to go unchecked, they have the potential to have serious influences on the delivery of treatment and recommendations that counselors and trainees make with clients (Boysen, 2010; Castillo et al., 2007). Therefore, future research is needed to continue developing and examining potential interventions that will be effective in reducing implicit racial bias.

**Conclusion**

The purpose of this study was to examine whether priming cultural feedback would elicit implicit bias and its influence on the evaluation of clinical cases. None of the hypotheses were supported, however, one salient finding emerged. Participants who received positive cultural feedback evaluated the clinical cases less severely and gave a better prognosis in comparison to those who received negative cultural feedback. This finding parallels those of prior studies that examined how feedback influenced subsequent behavior (Bernstein & Lecomte, 1979; Cianci et al., 2010; Daniels & Larson, 2001; Kluger & DeNisis, 1996; Means & Means, 1971; Raferty & Bizer, 2009). This finding is informative for both counselors and supervisors in that the type of feedback one may have an impact on how clients may be evaluated and subsequently treated. Thus, this finding is a contribution to the field of counseling.

Additionally, this study examined feedback that was culturally laden and bogus. Receiving positive cultural feedback was seen as more helpful and comforting to a majority sample of Caucasian women trainees, in comparison to those who received negative cultural feedback. Therefore, additional research is needed in identifying the occurrence of implicit
racial biases, as well as in understanding the power of cultural feedback that may be congruent and incongruent to Caucasian trainees’ beliefs about their level of prejudice and bias.

In conclusion, it is hoped that this study may serve as a catalyst in identifying how implicit racial bias is not being adequately addressed in the field of counseling. In help-seeking research, individuals who hold implicit racial biases have demonstrated some form of discrimination (Aberson & Ettlin, 2004; Dovidio, 2001; Saucier et al., 2005). This behavior is not foreign to the field of counseling (Abreu, 1999; Boysen & Vogel, 2008; Castillo et al., 2007; Cooper et al., 2012; Devine, 1989; Katz & Hoyt, 2014), and therefore, multicultural psychology should not be left behind in addressing this issue. When explicit biases were prominent, multicultural psychology emerged as the “fourth force” and played a prominent role in addressing this cultural bias (Pedersen, 1990). Today similar attention, assessments, and interventions are needed, as implicit racial biases remain unknown, and possibly, unchecked in the field of multicultural psychology.
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APPENDIX A
QUICK DISCRIMINATION INDEX*

Participant ID:____________________

Please respond to all items in the survey. Remember there are no right or wrong answers. The survey is completely anonymous, do not put your name on the survey. Please circle the appropriate number to the right.

Strongly Disagree = 1  Disagree = 2  Not Sure = 3  Agree = 4  Strongly Agree = 5

______________  1. I do think it is more appropriate for the mother of a newborn baby, rather than the father, to stay home with the baby during the first year.

______________  2. It is as easy for women to succeed in business as it is for men.

______________  3. I really think affirmative action programs on college campuses constitute reverse discrimination.

______________  4. I feel I could develop an intimate relationship with someone from a different race.

______________  5. All Americans should learn to speak two languages.

______________  6. I look forward to the day when a woman is President of the United States.

______________  7. Generally speaking, men work harder than women.

______________  8. My friendship network is very racially mixed.

______________  9. I am against affirmative action programs in business.

______________  10. Generally, men seem less concerned with building relationships than do women.

______________  11. I would feel O.K. about my son or daughter dating someone from a different race.

*For the purpose of the study, the scale will be labeled as “The Social Attitude Survey”
Appendix A—Continued

___________ 12. I was very happy when an African American person (Barack Obama) was elected President of the United States on November 4, 2008.

___________ 13. In the past few years there has been too much attention directed toward multicultural issues in education.

___________ 14. I think feminist perspectives should be an integral part of the higher education curriculum.

___________ 15. Most of my close friends are from my own racial group.

___________ 16. I feel somewhat more secure that a man rather than a woman, is currently President of the United States.

___________ 17. I think that it is (or would be) important for my children to attend schools that are racially mixed.

___________ 18. In the past few years there has been too much attention directed towards multicultural issues in business.

___________ 19. Overall, I think racial minorities in America complain too much about racial discrimination.

___________ 20. I feel (or would feel) very comfortable having a woman as my primary physician.

___________ 21. I think the President of the United States should make a concerted effort to appoint more women and racial minorities to the country’s Supreme Court.

___________ 22. I think white people’s racism toward racial minority groups still constitutes a major problem in America.

___________ 23. I think the school system, from elementary school through college, should encourage minority and immigrant children to learn and fully adopt traditional American values.

___________ 24. If I were to adopt a child, I would be happy to adopt a child of any race.

___________ 25. I think there is as much female physical violence towards men as there is male physical violence toward women.
Appendix A—Continued

26. I think the school system, from elementary school through college, should promote values representative of diverse cultures.

27. I believe that reading the autobiography of Malcolm X would be of value.

28. I would enjoy living in a neighborhood consisting of a racially diverse population (e.g., Asians, Blacks, Hispanics, Whites).

29. I think it is better if people marry within their own race.

30. Women make too big of a deal out of sexual harassment issues in the workplace.

**Prediction Question.**

The social attitude measure that you just took has a maximum score of 150 indicating a high level of social awareness. The minimum score is a 30 indicating a low level of social awareness. What score do you believe you will obtain? _______________
APPENDIX B

CLINICAL VIGNETTES

Caucasian-Clear

Presenting Problem: Jason is a 31 year old, Caucasian male that [sic] is refereed for counseling services. Jason reports that he is seeking counseling services for his constant down and depressed mood over the last 4 months. Jason has had these feelings for a while and is “unsure” of what to do. Jason recently lost his job and has been feeling “stuck” or lacking any energy. Since losing his job, Jason mainly spends his time stuck on his couch. Jason reports that he feels hopeless and thinks there is nothing that can be done about his thoughts and feelings. Jason reports having difficulty falling asleep and will fall asleep around 2 or 3 am. Jason’s difficulty sleeping is due to his saddened and constant thoughts about his failures. When he eventually falls asleep he will wake up in the morning tired because he could not sleep. Jason stated that he felt at his lowest a few days ago when he couldn’t get out of bed. Jason is “unsure” how counseling will be able to help him, but is willing to give it a shot. Jason sought counseling services after his wife begged him to attend.

Social network: Jason has a few friends, and described his social life before feeling “down” as normal. Jason primarily enjoyed spending time with his wife and friends before losing his job. Since losing his job, Jason reports that he has no desire to go out with his friends right now, as he knows they rather not hear about his problems. Primarily, Jason stays at home and watches television. When Jason feels down or sad about his life usually he will isolate himself, which also resorts to him drinking alcohol.

Family History: Jason has been married for five years. Jason describes his marriage as “good” and everything would be “fine” if he could stop feelings “down” all the time. When Jason’s wife confronts him about his behavior he will feel [sic] like a failure. Jason reports that neither he nor his wife has ever had individual counseling services. Jason’s wife though recommended counseling after remembering they attended a marital workshop when they first were engaged. Jason denied any family history of mental illness or receiving counseling services.

Employment: Jason recently lost his job due to the economy and cutbacks. Since losing his job he feels like a failure and worthless as a husband. Jason reports that he loved his job and doesn’t know what to do now. Jason reports he doesn’t know how he will provide for his family, and since he only has a high school diploma “no one” will hire him.
**African American-Clear**

Presenting Problem: Jason is a 31 year old, Caucasian male that [sic] is referred for counseling services. Jason reports that he is seeking counseling services for his constant down and depressed mood over the last 4 months. Jason has had these feelings for a while and is “unsure” of what to do. Jason recently lost his job and has been feeling “stuck” or lacking any energy. Since losing his job, Jason mainly spends his time stuck on his couch. Jason reports that he feels hopeless and thinks there is nothing that can be done about his thoughts and feelings. Jason reports having difficulty falling asleep and will fall asleep around 2 or 3 am. Jason’s difficulty sleeping is due to his saddened and constant thoughts about his failures. When he eventually falls asleep he will wake up in the morning tired because he could not sleep. Jason stated that he felt at his lowest a few days ago when he couldn’t get out of bed. Jason is “unsure” how counseling will be able to help him, but is willing to give it a shot. Jason sought counseling services after his wife begged him to attend.

Social network: Jason has a few friends, and described his social life before feeling “down” as normal. Jason primarily enjoyed spending time with his wife and friends before losing his job. Since losing his job, Jason reports that he has no desire to go out with his friends right now, as he knows they rather not hear about his problems. Primarily, Jason stays at home and watches television. When Jason feels down or sad about his life usually he will isolate himself, which also resorts to him drinking alcohol.

Family History: Jason has been married for five years. Jason describes his marriage as “good” and everything would be “fine” if he could stop feelings “down” all the time. When Jason’s wife confronts him about his behavior he will feel [sic] like a failure. Jason reports that neither he nor his wife has ever had individual counseling services. Jason’s wife though recommended counseling after remembering they attended a marital workshop when they first were engaged. Jason denied any family history of mental illness or receiving counseling services.

Employment: Jason recently lost his job due to the economy and cutbacks. Since losing his job he feels like a failure and worthless as a husband. Jason reports that he loved his job and doesn’t know what to do now. Jason reports he doesn’t know how he will provide for his family, and since he only has a high school diploma “no one” will hire him.
**Caucasian-Ambiguous**

Presenting Problem: Jason is a 31 year old, Caucasian male that [sic] is refereed for counseling services. Jason reports that he is seeking counseling services for his constant irritable and depressed mood over the last 4 months. Jason has had these feelings for a while and is “unsure” of what to do. Jason recently lost his job and has been feeling “confused” and lacking any energy. Since losing his job, Jason mainly spends his time thinking on his couch. Jason reports that he feels disorganized and thinks there is nothing that can be done about his thoughts and feelings. Jason has difficulty falling asleep and will fall asleep around 2 or 3 am. Jason’s difficulty sleeping is due to his hyperactivity and constant thoughts about his failures. When he eventually falls asleep he will wake up in the morning tired because he could not sleep. Jason stated that he felt at his lowest a few days ago when he thought he was hearing voices. Jason is “unsure” how counseling will be able to help him, but is willing to give it a shot. Jason sought counseling services after his wife begged him to attend.

Social network: Jason has a few friends, and described his social life before feeling “down” as normal. Jason primarily enjoyed spending time with his wife and friends before losing his job. Since losing his job, Jason reports that he has some desire to go out with his friends on weekends, but wonders if they rather not hear about his problems. Mostly, Jason stays at home and watches television. When Jason feels anxious or sad about his life usually he will isolate himself, which also resorts to him drinking alcohol.

Family History: Jason has been married for five years. Jason describes his marriage as “good” and everything would be “fine” if he could stop feeling “irrational” all the time. When Jason’s wife confronts him about his behavior he will feel [sic] like a failure. Jason reports that neither he nor his wife has ever had individual counseling services. Jason’s wife though recommended counseling for Jason after remembering they attended a marital workshop when they first were engaged. Jason denied any family history of mental illness or receiving counseling services.

Employment: Jason recently lost his job due to the economy and cutbacks. Since losing his job he feels like a failure and disorganized as a husband. Jason loved his job and doesn’t know what to do now. Jason reports he doesn’t know how he will provide for his family, and since he only has a high school diploma “no one” will hire him.
African American - Ambiguous

Presenting Problem: Jason is a 31 year old, African American male that [sic] is refereed for counseling services. Jason reports that he is seeking counseling services for his constant irritable and depressed mood over the last 4 months. Jason has had these feelings for a while and is “unsure” of what to do. Jason recently lost his job and has been feeling “confused” and lacking any energy. Since losing his job, Jason mainly spends his time thinking on his couch. Jason reports that he feels disorganized and thinks there is nothing that can be done about his thoughts and feelings. Jason has difficulty falling asleep and will fall asleep around 2 or 3 am. Jason’s difficulty sleeping is due to his hyperactivity and constant thoughts about his failures. When he eventually falls asleep he will wake up in the morning tired because he could not sleep. Jason stated that he felt at his lowest a few days ago when he thought he was hearing voices. Jason is “unsure” how counseling will be able to help him, but is willing to give it a shot. Jason sought counseling services after his wife begged him to attend.

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Employment: Jason recently lost his job due to the economy and cutbacks. Since losing his job he feels like a failure and disorganized as a husband. Jason loved his job and doesn’t know what to do now. Jason reports he doesn’t know how he will provide for his family, and since he only has a high school diploma “no one” will hire him.
APPENDIX C

CLINICAL IMPRESSIONS

Participant ID _____________________________

Please read and answer the following questions below about the clinical vignette you’ve just read. Circle your answers.

1. What is the overall level of severity of the client’s presenting problem?
   Not Severe                  Severe
   1                       2  3  4  5  6  7

2. Based on the client’s presenting problem, how soon should the client be seen by a counselor?
   Not Urgent                  Needs Immediate Care
   1                       2  3  4  5  6  7

3. How motivated do you think the client will be to attend and work in therapy?
   Will Not Be Motivated                  Will Be Fully Motivated
   1                       2  3  4  5  6  7

4. Based on the client’s presenting problem, what is the likelihood that the client will remain in counseling until the presenting concern is resolved?
   Not Likely                  Very Likely
   1                       2  3  4  5  6  7

5. Based on the client’s presenting problem, how much progress do you expect the client will make in resolving his problems before termination?
   No Progress                  Significant Progress
   1                       2  3  4  5  6  7
Appendix C—Continued

6. Based on the presenting problem, estimate the number of sessions you believe will be needed for the following client to resolve his presenting concerns?

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<th>4-7</th>
<th>8-10</th>
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7. How comfortable would you be in working with this client?

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<th>Comfortable Level</th>
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<tr>
<td>Extremely Comfortable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. How confident are you in the ability to work with this client?

<table>
<thead>
<tr>
<th>Confidence Level</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Confident</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Somewhat Confident</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extremely Confident</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX D

DEMOGRAPHIC INFORMATION SHEET

Participant ID ______________

1. Specify Gender: _________________________

2. Age ___________

3. Race (circle all that apply): White/Caucasian     African American     Asian-American
   Latino/a     Native American     Other_____________________

4. CECP Program of Study (e.g., School Counseling)
   __________________________________

5. Have you completed the following Courses? (Please circle)
   a. Counseling Techniques 604   Y   N   Currently Enrolled
   b. Multicultural Counseling 607 Y   N   Currently Enrolled
   c. Psychopathology 621      Y   N   Currently Enrolled
   d. Counseling Practicum 612  Y   N   Currently Enrolled

6. What is your current status in your CECP program based on the number of courses left to take? (mark with an X)
   a. I just started the program      __________
   b. I am about a quarter way to completing my degree __________
   c. I am less than half way to completing my degree __________
   d. I am about halfway to completing my degree __________
   e. I am more than halfway and near completing my degree __________
   f. Currently I am completing my practicum (612) __________
APPENDIX E

DEMOGRAPHIC SHEET PART II

Please provide feedback about your experience during the study.

1. What was your level of comfort throughout the entire experiment?

<table>
<thead>
<tr>
<th>Uncomfortable</th>
<th></th>
<th>Uneasy at Times</th>
<th></th>
<th>Comfortable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Did you find receiving feedback helpful about your performance on the first measure helpful?

<table>
<thead>
<tr>
<th>No, it was not helpful</th>
<th>Somewhat Helpful</th>
<th>Yes it was helpful</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

3. Do you believe that the feedback given to you influenced your decisions in rating the vignette?

<table>
<thead>
<tr>
<th>Not at All</th>
<th>Somewhat</th>
<th>A great deal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

4. Briefly, indicate what you think the study was about?

Thank you for participating!
If you would like feedback about the study, email branson.l.boykins@wmich.edu indicating as such.
Appendix F

Data Collection Instructions

Round 1 Instructions

1. Two research assistants work together to collect data.
2. Introduce yourselves and state that you are here conducting a study on how counselors make decision making in a short period of time.
3. One person passes out the packets to everyone, while the other person continues to talk.
4. Ask participants to open their packet and pull out the informed consent documents.
5. Go over the informed consent document aloud, highlighting keys points. Do not read it verbatim.
6. After going over the informed consent, tell participants that if they are willing to give consent they need to sign the informed consent document. Note that there are 2 informed consents, the signed one they must return and the unsigned one is for their record.
7. If participants have already participated in this study or do not wish to give consent, remind them to leave the informed consent form blank and return the packet to them as is.
8. For those participating in the study, ask them to write their name, first and last on the outside of the envelope. Inform participants that packets with names will be shredded and destroyed after data collection.
9. Next, ask participants to complete the Social Attitude Survey, which is also in their packet. Indicate that there is no right or wrong answer, just what their beliefs are.
10. Ask them to return the finished forms, putting the signed informed consent and completed Social Attitude Survey back in the packet and return to you.
11. Collect all data.
12. Leave the room reminding the instructor you will return 10 minutes prior to the end of class.
Appendix F—Continued

Post First Data Collection Instructions

1. Begin by setting aside all packets that were not filled out—those who refused to participate or had already participated in the study.
2. Take each completed packet and match the Round 1 collected materials with the Round 2 already prepared materials by participant name.
3. Remove the informed consent from the packet and set aside.
4. **Write the participant ID on the Round 2 materials** that match the participant ID already given in the Round 1 materials.
5. Divide packets equally among helpers to score the social attitude scale.
6. Use the addition sheet to score the social attitude scale.
7. Write the participant ID on the addition sheet.
8. Make sure to reverse score the following items before adding up the scores:
   a. 1, 2, 3, 7, 9, 10, 13, 15, 16, 18, 19, 23, 25, 29, 30.
   b. They are marked on the addition sheet.
9. Then add the scores for the Social Attitude Measure.
10. The addition sheet will serve as a guide in summing the scores at each multiple of 10 (e.g., 10, 20, 30). Thus subtotals will be noted for each 10 set of items.
11. Add each multiple of ten for a total score.
12. Write the total score on your addition sheet and set aside.
13. Repeat steps 6 – 12 for all packets.
14. Once the scoring has been completed, set aside the Round 1 packets.
15. Keep the addition sheet to complete the round 2 packets.
16. Turn in the addition sheets to the Branson.
Appendix F—Continued

Round 2 Instructions

1. 2 research assistants will do the data collection round 2.
2. At 10 till the close of class, reenter the classroom.
3. Pass out participant’s Round 2 packet by calling out participant’s name and handing the packet to the participant. Ask students to double check that their name is on the packet handed to them.
4. Ask all participants to follow the instructions precisely: Tell the participant to read the first sheet of paper in the packet. Do not look at any other sheets.
5. Instruct the participants, that once they have read the first sheet of paper, they will only have 5 minutes to read the clinical vignette.
6. Instruct participants if they finish early to wait until the timer goes off to proceed to the clinical impressions measure and begin rating the vignette. They are only permitted to read the vignette once and may not refer back to the clinical vignette.
7. Start the timer for 3 minutes.
8. Remind participants to turn their page and begin rating the clinical vignette. Inform participants they may not look at the clinical vignette again.
9. Once participants have completed the clinical impressions ratings before the time, they may begin to fill out their demographic information.
10. After 3 minute timer sounds, inform participants to turn their page and complete the final measure the demographic sheet.
11. After all participants have completed the demographic sheet collect all packets and materials.
12. Thank the instructor and students and let them know that you will be happy to return to give feedback or email Branson Boykins for feedback.
APPENDIX G

AGE ANOVA TABLE

*Three Way ANOVA Table of Participants’ Age and each Independent Variable*

<table>
<thead>
<tr>
<th></th>
<th>df</th>
<th>F</th>
<th>η²</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feedback</td>
<td>2</td>
<td>1.33</td>
<td>.02</td>
<td>.27</td>
</tr>
<tr>
<td>Clarity</td>
<td>1</td>
<td>0.15</td>
<td>.01</td>
<td>.70</td>
</tr>
<tr>
<td>Race</td>
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<td>2.01</td>
<td>.01</td>
<td>.16</td>
</tr>
<tr>
<td>Feedback x Clarity</td>
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<td>0.69</td>
<td>.01</td>
<td>.50</td>
</tr>
<tr>
<td>Feedback x Race</td>
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<td>0.02</td>
<td>.01</td>
<td>.98</td>
</tr>
<tr>
<td>Clarity x Race</td>
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<td>8.20</td>
<td>.04</td>
<td>.01</td>
</tr>
<tr>
<td>Feedback x Race x Clarity</td>
<td>2</td>
<td>1.74</td>
<td>.02</td>
<td>.18</td>
</tr>
</tbody>
</table>

*Note. N = 189. Feedback = type of feedback Clarity = clarity of vignette, Race = race of vignette, Feedback x Clarity = Interaction between feedback type and clarity of vignette, Feedback x Race = interaction between feedback type and race of vignette, Clarity x Race = interaction between clarity of vignette and race of vignette, Feedback x Race x Clarity = interaction between feedback type, race of vignette, and clarity of vignette. p < .01.*
APPENDIX H

QDI ANOVA TABLES

Three Way ANOVA Table of QDI Total Score and Independent Variables

<table>
<thead>
<tr>
<th></th>
<th>df</th>
<th>F</th>
<th>$\eta^2$</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feedback</td>
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<td>1.57</td>
<td>.02</td>
<td>.21</td>
</tr>
<tr>
<td>Clarity</td>
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<td>.01</td>
<td>.01</td>
<td>.99</td>
</tr>
<tr>
<td>Race</td>
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<td>.01</td>
<td>.01</td>
<td>.37</td>
</tr>
<tr>
<td>Feedback x Clarity</td>
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<td>1.00</td>
<td>.01</td>
<td>.50</td>
</tr>
<tr>
<td>Feedback x Race</td>
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<td>.33</td>
<td>.01</td>
<td>.72</td>
</tr>
<tr>
<td>Clarity x Race</td>
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<td>.91</td>
<td>.01</td>
<td>.34</td>
</tr>
<tr>
<td>Feedback x Race x Clarity</td>
<td>2</td>
<td>.56</td>
<td>.01</td>
<td>.57</td>
</tr>
</tbody>
</table>

Note. N = 193. Feedback = type of feedback, Clarity = clarity of vignette, Race = race of vignette, Feedback x Clarity = Interaction between feedback type and clarity of vignette, Feedback x Race = interaction between feedback type and race of vignette, Clarity x Race = interaction between clarity of vignette and race of vignette, Feedback x Race x Clarity = interaction between feedback type, race of vignette, and clarity of vignette.

Three Way ANOVA Table of QDI Predicted Score and Independent Variables

<table>
<thead>
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<th>p</th>
</tr>
</thead>
<tbody>
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<td>.44</td>
</tr>
<tr>
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<tr>
<td>Race</td>
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<td>.49</td>
<td>.01</td>
<td>.49</td>
</tr>
<tr>
<td>Feedback x Clarity</td>
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<td>.01</td>
<td>.78</td>
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<tr>
<td>Feedback x Race</td>
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<td>.01</td>
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<td>.01</td>
<td>.35</td>
</tr>
</tbody>
</table>

Note. N = 178. Feedback = type of feedback, Clarity = clarity of vignette, Race = race of vignette, Feedback x Clarity = Interaction between feedback type and clarity of vignette, Feedback x Race = interaction between feedback type and race of vignette, Clarity x Race = interaction between clarity of vignette and race of vignette, Feedback x Race x Clarity = interaction between feedback type, race of vignette, and clarity of vignette.

p < .01
Appendix H—Continued

*Three Way ANOVA Table of QDI Differential Score and Independent Variables*

<table>
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</thead>
<tbody>
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<td>0.07</td>
<td>.01</td>
<td>.93</td>
</tr>
<tr>
<td>Clarity</td>
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<td>3.90</td>
<td>.02</td>
<td>.05</td>
</tr>
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<td>.01</td>
<td>.36</td>
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<tr>
<td>Feedback x Race</td>
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<td>.01</td>
<td>.74</td>
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<tr>
<td>Clarity x Race</td>
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<td>.01</td>
<td>.73</td>
</tr>
<tr>
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<td>0.50</td>
<td>.01</td>
<td>.61</td>
</tr>
</tbody>
</table>

*Note.* \(N = 178\). Feedback = type of feedback, Clarity = clarity of vignette, Race = race of vignette, Feedback x Clarity = Interaction between feedback type and clarity of vignette, Feedback x Race = interaction between feedback type and race of vignette, Clarity x Race = interaction between clarity of vignette and race of vignette, Feedback x Race x Clarity = interaction between feedback type, race of vignette, and clarity of vignette. \(p < .01\).
Date: December 22, 2014

To: Beverly Vandiver, Principal Investigator
    Branson Boykins, Student Investigator for dissertation

From: Amy Naugle, Ph.D., Chair

Re: HSIRB Project Number 14-12-22

This letter will serve as confirmation that your research project titled “Examining Decision Making in Counselors In-Training” has been approved under the expedited category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note: This research may only be conducted exactly in the form it was approved. You must seek specific board approval for any changes in this project (e.g., you must request a post approval change to enroll subjects beyond the number stated in your application under “Number of subjects you want to complete the study”). Failure to obtain approval for changes will result in a protocol deviation. In addition, if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

Reapproval of the project is required if it extends beyond the termination date stated below.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: December 21, 2015