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Development of the Lesbian, Gay, and Bisexual Affirmative Counseling Self-Efficacy Inventory – Short Form (LGB-CSI-SF)

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Abstract

The Lesbian, Gay, and Bisexual Affirmative Counseling Self-Efficacy Inventory – Short Form (LGB-CSI-SF) was developed to facilitate LGB-affirmative counseling training, as well as process and outcome research, by offering a brief psychometrically supported version of the original LGB-CSI measure to researchers and clinicians. Five hundred seventy-five participants (435 licensed mental health professionals and 140 graduate students/trainees) constituted the sample. Confirmatory factor analyses of the 32 items from the original LGB-CSI yielded a new 15-item version of the measure composed of 5 factors (consisting of 3 items each) that assess counselor self-efficacy to perform lesbian, gay, and bisexual (LGB) affirmative counseling behaviors (Application of Knowledge, Advocacy Skills, Self-Awareness, Relationship, and Assessment). The LGB-CSI-SF evidenced high internal consistency and adequate test–retest stability. Convergent validity was supported by correlations between LGB-CSI-SF total scores and Application of Knowledge, Advocacy Skills, Relationship, and Assessment subscales and instruction in LGB issues, as well as personal/professional relations with LGB individuals. More affirmative attitudes toward LGB persons positively related with total scores and Advocacy Skills,

Self-Awareness, and Relationship subscales. Discriminant validity was evidenced by an absence of relations between LGB-CSI-SF subscales and a measure of impression management. We found no associations between Advocacy Skills, Assessment, and Relationship subscales and a measure of Self-Deception. Recommendations for implementing the LGB-CSI-SF in future LGB-affirmative counseling self-efficacy based research and training interventions are discussed.

Keywords

counselor training; Lesbian; Gay; Bisexual Affirmative Counseling Self-Efficacy Inventory, reliability, validity

The *Lesbian, Gay, and Bisexual Affirmative Counseling Self-Efficacy Inventory* (LGB-CSI; Dillon & Worthington, 2003) was developed for use in training, research, and clinical practice as an assessment of therapists' confidence to engage in LGB-affirmative counseling behaviors. LGB-affirmative counseling behaviors, according to Perez (2007), involve the following:

the integration of knowledge and awareness by the therapist of the unique developmental and cultural aspects of [LGB] individuals, the therapist's own self-knowledge, and the translation of this knowledge and awareness into effective and helpful therapy skills at all stages of the therapeutic process (p. 408).

The LGB-CSI assesses therapists' confidence to perform LGB affirmative counseling behaviors across five dimensions: (a) applying knowledge of LGB issues (Application of Knowledge), (b) performing advocacy skills (Advocacy Skills), (c) maintaining awareness of attitudes toward one's own and others' sexual identity development (Self-Awareness), (d) developing a working relationship with LGB clients (Relationship), and (e) assessing relevant underlying issues and problems of LGB clients (Assessment).

Since its development, the LGB-CSI has been used to demonstrate the positive influence of an LGB-affirmative didactic course on therapists' self-efficacy beliefs and counseling skills (Bidell, 2013). Other research has linked LGB-affirmative counseling self-efficacy with counselors' gender self-definition and their sexual identity development (Dillon et al., 2008). Furthermore, O'Shaughnessy and Spokane (2013) determined relations between therapist-trainees' personality traits and self-reported lesbian and gay affirmative therapy competency by implementing the LGBCSI. Thus, it is apparent that the LGB-CSI has demonstrated its initial utility. Given these successes, there is cause to explore how a shorter version of the 32-item measure could benefit future researchers of LGB issues in psychotherapy research where parsimonious and efficient scales are preferred due to time constraints on clients and clinicians. For instance, a brief version of the LGB-CSI could be used in clinical research investigating multiple constructs and hypotheses, and thus requiring longer surveys and more attention to potential respondent burden in the clinical setting (Ulrich, Wallen, Feister, & Grady, 2005). Because a shorter, psychometrically supported LGB-CSI would be beneficial for future clinical and training settings and research, the current study aims to refine the LGB-CSI by creating a shorter, parsimonious scale to measure counselor self-efficacy to engage in LGB-affirmative counseling behaviors.

Current Study

Methodologists have suggested specific analytical steps for item reduction (e.g., Bollen, 1989; Larwin & Harvey, 2012; Newcomb & Bentler, 1988; van der Sluis, Dolan, & Stoel, 2005). We applied these recommendations to develop a brief, psychometrically valid, and reliable version of the original LGB-CSI. Because we expect the measure to be used across mental health disciplines and in the training of primarily heterosexual clinicians, we sampled self-identified heterosexual mental health professionals at varying levels of professional background and experience. We purposely sought participants from varying backgrounds and experiences to enhance the external validity of the revised LGB-CSI. In addition, we recruited only heterosexual mental health professionals because past research shows that practitioners who identify as LGB report less variability (i.e., consistently high levels of LGB-affirmative self-efficacy) than those who identify as heterosexual (Dillon & Worthington, 2003; Dillon et al., 2008).

To preserve the measurement and structural integrity of the original LGB-CSI, we first conducted a confirmatory factor analysis (CFA) to reduce the number of items. Next, we conducted analyses comparing the original measure with the new shortened measure to determine the construct validity of the revised scale. We then calculated reliability estimates for the revised LGB-CSI short form (LGB-CSI-SF).

In the next step, we determined convergent validity estimates by correlating the LGB-CSI-SF scores with (a) scores on a measure of attitudes toward LGB persons and (b) reports of professional/ personal relations with LGB individuals. We hypothesized positive correlations between the LGB-CSI-SF scores and affirmative attitudes toward LGB persons because individuals expressing greater interest in (and awareness of) LGB persons and issues are theorized to report higher self-efficacy based on tenets of social–cognitive theory and previous studies involving the LGB-CSI (Bandura, 1986; Dillon & Worthington, 2003; Dillon et al., 2008; O'Shaughnessy & Spokane, 2013). Second, we hypothesized a positive relation between the LGB-CSI-SF and professional/personal relations with LGB individuals because past research has yielded positive associations between personal/professional experience and LGB self-efficacy (Dillon & Worthington, 2003). Furthermore, based on social–cognitive theory, therapists with more personal/professional experience are likely to have had more opportunities to interact with LGB family, friends, clients, supervisors, or colleagues and to be exposed to more sources of self-efficacy (e.g., performance accomplishments, successful experience, vicarious experiences, feedback; Bandura, 1997).

We determined discriminant validity estimates by correlating the new LGB-CSI-SF total and subscale scores with a measure that assesses respondents' self-deception (i.e., the tendency to give self-reports that are honest but exaggerated claims of positive cognitive attributes) and impression management (i.e., deliberate self-presentation of desirable behaviors to an audience; Paulhus, 1991). We hypothesized that no relationship would be observed between scales because the original LGB-CSI items were developed to minimize social desirability response bias (Dillon & Worthington, 2003). Finally, we examined the stability or test–retest reliability of the new LGB-CSI-SF total and subscale scores over a one-week time period.

Method

In this section, we describe methods for two separate studies. The first study addressed the primary aims to reduce length of LGB-CSI and calculate validity estimates of the new brief version of the LGB-CSI. The second study examined the stability or test–retest reliability estimates for the new brief version with an independent sample.

Procedure for Confirmatory Factor Analysis (CFA) and Validity Estimates

Participants for the CFA and validity study were recruited via e-mail messages sent to a nationwide sample of licensed mental health practitioners (i.e., psychologists, clinical social workers, marriage and family therapists) from September 2012 to October 2012 as part of a larger study of affirmative counseling among mental health professionals (Alessi, Dillon, & Kim, in press). To enlarge and diversify the sample of the current study, additional data were collected between January 2013 and June 2013 via recruitment of graduate students from Master of Social Work (MSW) programs at one large northeastern university in the United States, one large southeastern university in the United States, and one large university located in eastern Canada. Potential participants were told that participation in the online study was voluntary and would take approximately 30 minutes. Individuals interested in participating were directed to an Internet web address where they could access the online survey. The solicited licensed mental health practitioners in the parent study were offered a \$20 Amazon.com gift certificate for participating in study, whereas the MSW graduate students/trainees were not offered compensation because of funding constraints. Data collection protocols were approved by university institutional review boards at all three institutions.

Participants for Confirmatory Factor Analysis and Validity Estimates

Four hundred forty-two licensed mental health professionals and 159 graduate students accessed and completed the online survey. Eight participants who did not identify their sexual orientation as heterosexual were removed from the analytic sample as they did not meet eligibility criteria stated in study announcement e-mail message. We excluded an additional 41 participants who responded to a validity-check item despite being instructed to not answer. Nine cases with duplicate submissions were also removed from the sample. Therefore, the final analytic sample comprised 543 participants (435 licensed mental health professionals and 108 graduate students/trainees).

Participants ranged in age from 27 to 83 years old ($M = 50.07$ $SD = 11.88$), and 75.9% identified as female ($n = 410$). Approximately 80% ($n = 432$) of participants were White/non-Latino; 7.4% ($n = 40$) identified as White/Latino; 6.8% ($n = 37$) identified as African American, Black/non-Latino; and 4.2% ($n = 23$) identified as Asian or Pacific Islander. The remainder of the sample identified as Black/Latino ($n = 6$), American Indian or Alaskan Native ($n = 1$), or other ($n = 3$). Approximately 45.3% of the sample consisted of licensed psychologists ($n = 246$), 24.1% were licensed clinical social workers ($n = 131$), 19.9% were MSW graduate students ($n = 108$), and 10.7% were licensed marriage and family therapists ($n = 58$).

Measures for Confirmatory Factor Analysis and Validity Estimates

Demographic variables—Participants reported their professional identification (i.e., psychologist, clinical social worker, marriage and family therapist, or graduate student), age, gender, race/ ethnicity, sexual orientation (to screen for study eligibility), number of hours of LGB-focused training experiences (1 = *none*, 2 = *1 to 5 hours*, 3 = *6 to 15 hours*, 4 = *16 to 25 hours*, 5 = *26 to 35 hours*, 6 = *more than 35 hours*), and number of current/past LGB clients as well as current/past LGB friends or family.

LGB-affirmative counseling self-efficacy—The LGB-Affirmative Counseling Self-Efficacy Inventory (LGB-CSI; Dillon & Worthington, 2003) assesses mental health practitioners' and trainees' abilities to perform LGB-affirmative counseling-related tasks and behaviors. The LGB-CSI consists of five subscales: Application of Knowledge (13 items), Advocacy Skills (7 items), Self-Awareness (5 items), Assessment (4 items), and Relationship (3 items), which reflect the central components of effective LGB-affirmative counseling. Participants use a 5-point scale (1 = *not confident* to 5 = *extremely confident*) to rate their ability to perform certain counseling-related tasks and behaviors among the five domains; for example, *How confident am I in my ability to facilitate a LGB-affirmative counseling or support group?* (Application of Knowledge), *How confident am I in my ability to refer LGB clients to affirmative legal and social supports?* (Advocacy), *How confident am I in my ability to examine my own sexual orientation/ identity process* (Self-Awareness), *How confident am I in my ability to complete an assessment for a potentially abusive same sex relationship in a LGB-affirmative manner* (Assessment), and *How confident am I in my ability to establish an atmosphere of mutual trust and affirmation when working with LGB clients* (Relationship). The LGB-CSI demonstrated good internal consistency in previous studies and has shown evidence for construct, discriminant, and convergent validity (Dillon & Worthington, 2003; Dillon et al., 2008; O'Shaughnessy & Spokane, 2013). Cronbach's alpha internal consistency estimates were Application of Knowledge = .89, Advocacy = .90, Self-Awareness = .88, Assessment = .89, Relationship = .81, and total = .87 in the current sample.

Attitudes toward LGB people—Four subscales from the *Lesbian, Gay, and Bisexual Knowledge and Attitudes Scale for Heterosexuals* (LGB-KASH; Worthington et al., 2005) were administered to assess participants' attitudes toward LGB people. The subscales include Hate (6 items), LGB Civil Rights (5 items), Religious Conflict (7 items), and Internalized Affirmativeness (5 items). Participants use a 5-point Likert scale (1 = *very uncharacteristic of me and my views* to 5 = *very characteristic of me and my views*) to respond to statements such as *LGB people deserve the hatred they receive* (Hate subscale), *I think marriage should be legal for same-sex couples* (LGB Civil Rights subscale), *I can accept LGB people even though I condemn their behavior* (Religious Conflict), and *Feeling attracted to another person of the same sex would not make me uncomfortable* (Internalized Affirmativeness). Higher total scores on the LGB Civil Rights and Internalized Affirmativeness subscales indicate higher levels of positive attitudes toward LGB people. Higher scores on the Hate subscale reflect condemning attitudes. Higher scores indicate higher conflict for the Religious Conflict subscale. The LGBKASH has demonstrated good internal consistency, and has shown evidence of discriminant and convergent validity

(Worthington et al., 2005). In this study, Cronbach's alpha was adequate for the Hate ($\alpha = .78$), LGB Civil Rights ($\alpha = .92$), Religious Conflict ($\alpha = .80$), and Internalized Affirmativeness ($\alpha = .65$) subscales. An LGB-KASH total score was calculated for convergent validity analyses. We added the LGB Civil Rights and Internalized Affirmativeness subscale scores and subtracted Hate and Religious Conflict subscale scores for each participant.

Desirable responding—The Balanced Inventory of Desirable Responding ([BIDR]; Paulhus, 1991) is a 40-item scale that measures self-deception (i.e., the tendency to give self-reports that are honest but exaggerated claims of positive cognitive attributes) and impression management (i.e., deliberate self-presentation of desirable behaviors to an audience). The measure was administered to graduate student participants ($n = 132$) from January 2013 to June 2013 for the purpose of assessing evidence of discriminant validity for the LGB-CSI-SF. Respondents rated their agreement with each item on an eight-point Likert scale (0 = *not true*, 4 = *somewhat true*, 7 = *very true*). High scores suggest excessively desirable responding. A Cronbach's alpha reliability of .68 and .79 were found for the Self Deception and Impression Management, respectively. The Self Deception and Impression Management scales have evidenced validity in past studies (Lanyon & Carle, 2007; Paulhus, 1991; Paulhus et al., 1995). Examples of items are *I don't care to know what other people really think of me* (Self Deception) and *When I hear people talking privately, I avoid listening* (Impression Management).

Procedure for Test–Retest Study

In October 2014, 32 graduate students were recruited from a graduate level course at large northeastern university. One participant did not complete the demographics questionnaire. Among this sample, 87.1% ($n = 27$) were first-year students in a Master of Mental Health Counseling program, 3.2% ($n = 1$) were in the second year of a Master of Mental Health Counseling program, and 9.7% ($n = 3$) were first-year doctoral students in a Counseling Psychology PhD program. The age of the participants ranged from 21 to 44 with a mean age of 24.96 ($SD = 5.86$), and 16.1% ($n = 5$) identified as male and 83.9% ($n = 26$) identified as female. The majority, 77.4% ($n = 24$), of participants identified as Non-Hispanic White, with 3.2% ($n = 1$) identifying as African American, 3.2% ($n = 1$) identifying as Hispanic/Latino White, 3.2% ($n = 1$) identifying as Asian or Pacific Islander, and 12.9% ($n = 4$) identifying as “Multiracial.”

Only 19.4% ($n = 6$) of the students had previous clinical experiences in any capacity, and 6.4% ($n = 2$) reported experience with gay clients, 9.6% ($n = 3$) reported experience with lesbian clients, and 9.6% ($n = 3$) reported experience with bisexual clients. More clients reported receiving training in LGB-related issues, with 22.6% ($n = 7$) reporting no history of LGB-related training, 48.4% ($n = 15$) reported 1–5 hours of training, 12.9% ($n = 4$) reported 6–15 hours of training, 6.5% ($n = 2$) reported 16–25 hours of training, and 9.7% ($n = 3$) reported 26 or more hours of training. Finally, 80.6% ($n = 25$) reported one or more lesbian friends, 96.8% ($n = 30$) reported one or more gay friends, and 87.1% ($n = 27$) reported one or more bisexual friends.

Participants were provided with informed consent detailing the anonymity of the procedures and the university's Institutional Review Board approval of this study. Those who consented completed the new brief version of the LGB-CSI (described in Results section). One week later, the same participants were asked to again complete the brief version of the LGB-CSI and a demographics questionnaire.

Results

Preliminary Analyses

Preliminary analyses proceeded in two steps. First, missing data were examined for each variable. The final analytic sample was deemed suitable for analyses because less than 10% of data were missing for each variable, which is recommended to avoid biased results (Schlomer, Bauman, & Card, 2010). Second, frequency distributions were calculated for all continuous variables to determine whether they violated the assumption of univariate normality (i.e., skewness index < 3 , kurtosis index < 10 ; Kline, 2011). Number of LGB clients and number of LGB friends or family members yielded positively skewed responses; therefore, analyses of these variables used nonparametric statistics (i.e., Spearman's rho correlation coefficients) to address the violations of the assumption of normality.

Item Selection

To shorten the original LGB-CSI, our analytic plan involved selecting the strongest loading items from the measure while maintaining the theoretical content and meaning of the measure's constructs (Larwin & Harvey, 2012; van der Sluis et al., 2005). A confirmatory factor analyses (CFA) via structural equation modeling (SEM) was conducted using *Mplus* statistical software (Muthén & Muthén, 1998–2011). This analysis assessed the fit of the original five factor LGB-CSI measurement model derived from the original LGB-CSI development study.

Model fit was assessed using the confirmatory fit index (CFI) and the root mean square error of approximation (RMSEA). A measurement model with excellent fit to the data has a CFI $> .95$ and RMSEA $< .06$, whereas an adequate fit has CFI $> .90$ and RMSEA $< .08$ (Byrne, 2009; Hancock & Freeman, 2001; Hu & Bentler, 1999; Tomarken & Waller, 2005). Items significantly loaded, as expected, on the five-factor model of the LGB-CSI. The measurement model provided an adequate fit to the data, CFI = .90; RMSEA = .07 (90% CI = .07 to .08). See Figure 1 for LGB-CSI measurement model results.

Next, to reduce the length of the measure, the weakest loading items were removed from each factor until each original factor was explained by at least three observed variables or items (Larwin & Harvey, 2012; van der Sluis et al., 2005). Item removal was based on three criteria: (a) the resulting short-form measurement model demonstrated good fit using previously described model fit criteria after item removal (Bollen, 1989); (b) the structural integrity of the original five-factor model was not violated after item removal (Bollen, 1989); and (c) the original factors remained correlated with corresponding short-form factors at a level of $r > .95$ after item removal (Larwin & Harvey, 2012; Newcomb & Bentler, 1988).

Given these criteria, the original LGB-CSI model was reestimated via a CFA as a new short-form model that included the three highest loading items per original factor. The Relationship factor was not shortened because the original factor was already composed of three items. The resulting five-factor, short form measurement model provided an adequate fit to the data, CFI = .96; RMSEA = .07 (90% CI = .07 to .08; see Figure 2).

Finally, we correlated the factors in the reduced item model with corresponding factors in the original model at $r = .95$ (Application of Knowledge = .96; Advocacy = .95; Self-Awareness = .95; and Assessment = .98). The LGB-CSI-SF factors and total score yielded the following means and standard deviations: Application of Knowledge ($M = 3.47$, $SD = 1.05$), Advocacy Skills ($M = 3.39$, $SD = 1.16$), Self-Awareness ($M = 4.34$, $SD = 0.67$), Assessment ($M = 4.07$, $SD = 0.96$), Relationship ($M = 4.11$, $SD = 0.91$), and total ($M = 3.90$, $SD = 0.74$).

Internal Consistency

We estimated an internal consistency (reliability) index of each latent construct of the LGB-CSI-SF. We used a formula proposed by Fornell and Larcker (1981), where reliability is posited as the ratio of the variability explained by the latent variable to the total variability among the indicators. Reliability estimates for the latent constructs used in analysis were: Application of Knowledge = .87, Advocacy = .92, Self-Awareness = .87, Assessment = .87, Relationship = .81.

Validity

To examine evidence of convergent validity for the LGB-CSISF, a correlation matrix was calculated including total and scale scores for the five subscales and (a) amount of instruction in LGB issues, (b) number of LGB clients, (c) number of family or friends who identify as LGB, and (d) attitudes toward LGB persons. Data from all 543 participants were examined in correlation analyses for evidence of convergent validity. As previously noted in the Preliminary Analyses subsection, reports of the number of LGB clients and number of LGB friends or family members yielded positively skewed responses; therefore, we used nonparametric Spearman's rho correlation coefficients to examine variables with skewed distributions and all categorical variables. Relations between normally distributed, continuous LGB-CSI-SF subscales and total scores and attitudes toward LGB persons were examined via Pearson correlation coefficients. Results of the correlation analyses appear in Table 1.

Amount of instruction in LGB issues, number of family or friends who are LGB, and number of LGB clients correlated with Application of Knowledge, Advocacy Skills, Assessment, and Relationship subscales and total scale scores, $r = .10$ to $.47$, $p < .05$. The Self-Awareness subscale was not related to LGB instruction and weakly related with number of LGB clients and number of family/friends who are gay males. More positive attitudes toward LGB persons were correlated with Advocacy Skills, Self-Awareness, Relationship, and total LGB-CSI-SF scores. Application of Knowledge and Assessment subscales were not associated with attitudes toward LGB individuals.

To examine evidence of discriminant validity for the LGB-CSISF, Pearson correlations were calculated with the BIDR Impression Management and Self-Deception subscales (see Table 1). There were no significant associations between LGB-CSI-SF and Impression Management scores (see Table 1). Small significant associations were found between the Self-Deception scale and LGB-CSI-SF Application of Knowledge, Self-Awareness, and total scores.

Test–Retest Results

Descriptive statistics—The means and standard deviations of the subscales and total score on the first measurement were 2.86 ($SD = 0.79$) for Application of Knowledge, 3.21 ($SD = 0.93$) for Advocacy Skill, 4.39 ($SD = 0.44$) for Self-Awareness, 4.17 ($SD = 0.61$) for Relationship, 3.22 ($SD = 0.74$) for Assessment, and 3.57 ($SD = 0.54$) for the total score. During the retest, the means and standard deviations were 3.00 ($SD = 0.82$) for Application of Knowledge, 3.28 ($SD = 1.08$) for Advocacy Skill, 4.29 ($SD = 0.56$) for Self-Awareness, 4.06 ($SD = 0.74$) for Relationship, 3.30 ($SD = 0.84$) for Assessment, and 3.58 ($SD = 0.64$) for the total score.

Reliability estimates—The 1-week test–retest reliability estimates for the brief form of the LGB-CSI total and subscales are as follows: $r = .80, p < .01$ (Total), $r = .69, p < .01$ (Application of Knowledge), $r = .76, p < .01$ (Advocacy Skill), $r = .34, p = .06$ (Self-Awareness), $r = .68, p < .01$ (Relationship), and $r = .61, p < .01$ (Assessment).

Discussion

The purpose of this study was to develop a brief and psycho-metrically supported version of the Lesbian, Gay, and Bisexual Affirmative Counseling Self-Efficacy Inventory—a measure of counselors' self-efficacy to perform LGB-affirmative counseling behaviors. Results of confirmatory factor analysis with the original 32 items of the LGB-CSI indicated that the scale could be reduced to 15 items and still explain the hypothesized covariance among LGB-CSI items across five separate, but related, major dimensions of LGB-affirmative counseling self-efficacy. The five dimensions included confidence in (a) applying knowledge of LGB issues (Application of Knowledge), (b) performing advocacy skills (Advocacy Skills), (c) maintaining awareness of one's own attitudes toward one's and others' sexual identity development (Self-Awareness), (d) developing a working relationship with LGB clients (Relationship), and (e) assessing unique issues and problems of LGB clients (Assessment).

The LGB-CSI and LGB-CSI-SF each have distinct advantages and disadvantages (see Table 2). Future research could compare the psychometric properties of both versions in independent samples. For instance, researchers could assess whether the two versions offer unique predictive value in relation to other theoretically relevant constructs, such as training and education. It would also be beneficial to examine relations with behaviorally observed variables (e.g., client or supervisor ratings of counselors' LGB-affirmative counseling skills). If the LGB-CSI and LGB-CSI-SF versions do not prove distinctive in relation to other constructs, then the shorter LGB-CSI-SF may be the version of choice.

Reliability estimates indicated that the five revised subscales were internally consistent and four subscales yielded adequate evidence of test–retest reliability (with the exception of the Self-Awareness subscale). The LGB-CSI-SF stability estimates were larger in effect size in comparison with the original LGB-CSI. The improved stability of the LGB-CSI-SF may have been attributable to greater stability of responses to the shortened version, and to shortening the length of the retest assessment from two weeks to one week to reduce the likelihood of history or maturation effects that were noted as potential threats to internal validity by Dillon and Worthington (2003). Test–retest estimates for the Self-Awareness subscale remained in the medium range at .34 [that is, $r = .10$ (small effect), $r = .30$ (medium effect), $r = .50$ (large effect); Cohen, 1992]. The Self-Awareness subscale may be especially vulnerable to testing effects because the Self-Awareness items seem to prime participants at first assessment to explore and assess their awareness about the issues mentioned in the item (examining feelings about one's own sexual orientation, examining one's own sexual identity development, and recognizing feelings about LGB clients). The Self-Awareness subscale also produced the highest self-efficacy scores with a restricted range of responses in comparison to other subscales. Given its potential vulnerability to testing effects and restricted range, the Self-Awareness subscale may not be suitable for use by itself in longitudinal studies requiring stability over multiple assessments. Thus, calculating a total LGB-CSI-SF score may be the most reliable method of assessing self-efficacy using the new measure in longitudinal studies.

We urge future researchers to continue to examine the reliability and validity of the LGB-CSI-SF via multimethod studies in which self-reports are compared to observer ratings (e.g., clinical supervisor or client reports) to determine whether the measure indicates evidence of validity and reliability. In the current study, evidence for the convergent validity of the LGB-CSI-SF was established and was similar to validity findings for the original LGB-CSI study (Dillon & Worthington, 2003) and other studies (Herek, 1994; Mohr & Rochlen, 1999). As hypothesized, reports of LGB-affirmative counseling self-efficacy were generally positively linked with instruction in LGB issues, amount of LGB family and friends, and number of LGB clients. A notable exception includes the lack of an association between the Self-Awareness subscale and LGB instruction. This unexpected finding may suggest that self-efficacy to maintain awareness of one's attitudes toward one's and others' sexual identity development may not solely be linked with existing educational interventions in the same way the other four dimensions (i.e., Application of Knowledge, Advocacy Skills, Relationship, Assessment) relate with level of instruction. Perhaps coursework alone does not address awareness about one's and others' sexual identity adequately because personal sexual identity development is a distinctly sensitive area that heterosexual students may find challenging to explore. It may be important for educational initiatives to focus more on didactic and clinical supervision exercises that focus on examination of personal sexual identity development issues. Alternatively, this finding may be an artifact of the previously-noted restricted range the questionable reliability estimate obtained with the Self-Awareness subscale. Recommendations to only use the Self-Awareness subscale items as part of an overall LGB-CSI-SF total score are supported by the lack of association between Self-Awareness and LGB instruction.

Relations between most LGB-CSI-SF scores and attitudes toward LGB individuals provided evidence of convergent validity. The consistent, small to moderate correlations found between the LGB-CSI-SF Advocacy, Self-Awareness, Relationship, and total scores and affirmative attitudes toward LGB individuals support LGB-affirmative counseling self-efficacy as an inversely related construct to homophobia/heterosexism. This finding reflects the theorized positive relationship between self-efficacy and degree of interest in a given area (Bandura, 1986). These results are also consistent with previous research suggesting that attitudes toward LGB clients influence counselor self-efficacy beliefs (Dillon & Worthington, 2003; Dillon et al., 2008; O'Shaughnessy & Spokane, 2013). Attitudes are posited to influence social–cognitive theory factors such as self-efficacy, persistence, and outcome expectations (Bandura, 1986). Holding affirmative attitudes may influence therapists' confidence to practice affirmatively (self-efficacy) and their beliefs about affirmative practice (outcome expectations), which in turn may lead to higher levels of engagement in affirmative and more opportunities to build LGB-affirmative self-efficacy. Thus, it appears that the type of attitudes a counselor holds toward LGB individuals may reflect his or her interest in LGB-affirmative counseling, which in turn may influence his or her self-efficacy to conduct LGB-affirmative counseling behaviors. Notable exceptions include counselor self-efficacy to apply knowledge and conduct assessments of LGB issues. The Application of Knowledge and Assessment subscales were not associated with attitudes toward LGB individuals. An explanation for the absence of relations between these constructs could be that counselor self-efficacy to *apply knowledge* and *assess* require information and skills that may go beyond solely holding positive attitudes. That is, in accordance with social–cognitive theory, the psychotherapist must possess adequate levels of knowledge of LGB issues and of psychological assessment before rating her or his confidence in engaging in LGB-affirmative counseling behaviors in these areas. Thus, having positive attitudes alone may not be sufficient to also possess high levels of self-efficacy in terms of the Application of Knowledge and Assessment subscales.

Discriminant validity was evidenced through the absence of relations between LGB-CSI-SF subscale and total scores and a measure of impression management. Similarly, some LGB-CSI-SF subscales (Advocacy Skills, Relationship, and Assessment) did not relate with a measure of self-deception. However, small but significant positive relations were found between Self-Deception and the LGB-CSI-SF total scale scores, and Application of Knowledge and Self-Awareness subscales. A positive association between the Self-Deception and the Self-Awareness subscales of the original LGB-CSI also was reported in a past study (Dillon & Worthington, 2003). As previously noted, future applications of the LGBCSI-SF would benefit from the use of additional assessment methods (e.g., client or supervisor rating) to balance respondents' potentially overconfident estimates of their ability to conduct LGB-affirmative counseling behaviors. Furthermore, given that the Self-Awareness subscale is again yielding problematic psychometric property, we recommend only using the Self-Assessment subscale items as part of an overall LGB-CSI-SF total score.

Despite substantive findings, several limitations should be noted. First, our studies involved samples of convenience, which lessens the generalizability of the results. Participants who agreed to participate may hold more affirmative attitudes and self-efficacy levels than

probability-based samples—which introduces self-selection bias. Second, participant responses were vulnerable to inflation because of the common method variance resulting from concurrent self-report data across the measures. Future studies of the construct validity of the LGB-CSI-SF would benefit from analyzing latent variables using multitrait-multimethod data. The second limitation is the gender imbalance in the overall sample. Because women's attitudes toward sexual minorities tend to be more positive than men's attitudes (e.g., Herek, 1994), the gender imbalance may have resulted in inflated LGB-KASH and LGBCSI-SF scores in comparison with the general population. Given the gender distribution in the mental health professions, future research may need to oversample male mental health professionals to arrive at a more balanced sample in terms of gender. A third limitation is that the LGB-CSI-SF inquired about lesbian, gay, and/or bisexual clients within the same item. Respondents were asked to rate their general self-efficacy beliefs concerning LGB clients without specifying between and within group differences (e.g., counseling lesbian women vs. gay men, bisexual women vs. bisexual men, bisexual clients vs. gay and/or lesbian clients). Future studies are required to examine specific versions of the LGB-CSI and LGB-CSI-SF to determine psychometric properties when lesbian, gay, and bisexual individuals are distinctly noted in item content, respectively. A fourth limitation is that transgender individuals and issues were not included in the item content of the original LGB-CSI or LGB-CSI-SF. Future research is needed to explore the similar and unique issues transgender clients present in counseling and counselors' self-efficacy to affirmatively address these issues.

Replications and extensions of the current study with independent samples could provide further evidence of the psychometric strengths and limitations of the LGB-CSI-SF. Additional suggestions for future research include investigating the role of counselor self-efficacy as a mechanism of change in LGB-affirmative process and outcome research, as well as in supervision, training, and intervention efforts. Specifically, the brief version of the LGB-CSI could facilitate future studies of whether an increase of in self-efficacy leads to improved competence to work with LGB clients and achieve positive therapeutic outcomes. This type of research would benefit from ascertaining the role of other social–cognitive variables, such as counselor interest in LGB counseling issues, outcome expectations, and persistence when counseling LGB clients.

In addition to use in future studies, a critical application of this instrument would be in supervision and training of counselors to develop appropriate levels of efficacy in working with LGB clients. The brief instrument, in particular, could enable supervisors and training programs to efficiently assess self-efficacy and other social–cognitive theory constructs related to affirmative counseling and research (see Bieschke, Eberz, Bard, & Croteau, 1998) model. The LGB-CSI-SF could also be used to efficiently assess the strengths and areas needing improvement in training programs and as a brief self-assessment tool in courses and practicum. For example, the LGB-CSI-SF may be useful for supervisors and trainees in facilitating discussion regarding trainees' progress.

A critical balance between the necessary challenge and support of LGB-affirmative counseling training can be achieved by addressing therapist self-efficacy beliefs. This approach may facilitate the development of not only therapist self-efficacy when working

with LGB clients, but may also enhance therapist performance and psychotherapy outcomes among LGB clients. The development of the LGB-CSI-SF is a theory-driven research project that hopes to contribute a parsimonious and efficient measure to the LGB-affirmative research base that continues to enhance therapist training, performance, and therapeutic outcomes.

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Figure 1.
Measurement model results for Lesbian, Gay, Bisexual Affirmative Counseling Self-Efficacy Inventory (LGB-CSI).

Figure 2. Measurement model results for Lesbian, Gay, Bisexual Affirmative Counseling Self-Efficacy Inventory – Short Form (LGB-CSI-SF).

Correlations Between LGB-CSI-SF and Training, Personal/Professional Experiences, Attitudes, and Desirable Responding

Table 1

Variable	M	SD	Knowledge	Advocacy Skills	Awareness	Assessment	Relationship	Total
Instruction in LGB issues	2.90	1.49	.50**	.35**	.02	.34**	.27**	.42**
Number of LGB clients								
Lesbian	22.72	94.07	.44**	.24**	-.13**	.29**	.16**	.30**
Gay (male)	18.52	57.17	.44**	.25**	-.12**	.31**	.15**	.30**
Bisexual	9.52	29.15	.41**	.25**	-.13**	.26**	.12**	.28**
Number of LGB family/friends								
Lesbian	11.79	44.57	.36**	.22**	.04	.23**	.20**	.30**
Gay (male)	10.97	27.08	.29**	.18**	.11*	.16**	.18**	.26**
Bisexual	4.18	10.33	.24**	.18**	.06	.10*	.12**	.20**
Attitudes toward LGB individuals	5.20	2.88	.04	.15**	.26**	-.02	.31**	.19**
Self-deception (<i>n</i> = 132)	3.88	0.68	.18*	.11	.21*	.12	.13	.19*
Impression management (<i>n</i> = 132)	3.56	0.93	.11	.08	.09	.09	.04	.10

* $p < .05$.

** $p < .01$.

Table 2
Comparing Use of the Lesbian, Gay, and Bisexual Affirmative Counseling Self-Efficacy Inventory (LGB-CSI) or Lesbian, Gay, and Bisexual Affirmative Counseling Self-Efficacy Inventory – Short Form (LGB-CSI-SF)

Measure	Advantages	Disadvantages
LGB-CSI	<ul style="list-style-type: none"> <i>Depth and breadth:</i> Assesses a range of basic to complex LGB-affirmative counseling behaviors across five empirically-derived dimensions (Application of Knowledge, Advocacy Skills, Self-Awareness, Relationship, Assessment) 	<ul style="list-style-type: none"> <i>Participant burden:</i> 10–20 minute administration time <i>Questionable stability:</i> Subscale and total scale scores yielded medium-sized test-retest estimates in original scale development study, while LGB-CSI-SF suggested more stability over time
LGB-CSI-SF	<ul style="list-style-type: none"> <i>Reduces participant burden:</i> 5–10 minute administration time <i>Efficient and parsimonious:</i> Assesses the same five empirically-derived dimensions (Application of Knowledge, Advocacy Skills, Self-Awareness, Relationship, and Assessment) dimensions of the original LGB-CSI <i>Stable:</i> Subscale and total scale scores (except Awareness) yielded larger effect sized test-retest estimates than original LGB-CSI 	<ul style="list-style-type: none"> <i>Limited breadth:</i> Assesses a limited number of counseling behaviors across five empirically-derived dimensions (Application of Knowledge, Advocacy Skills, Self-Awareness, Relationship, and Assessment)