


The Factor Structure, Internal Consistency, and Convergent Validity of Two Suicide Assessment Competency Measures in Vocational Rehabilitation Counselors

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Abstract

We analyzed the psychometric properties of two published self-report suicide assessment competency rating scales—the *Suicide Competency Inventory* (SCI) and the *Suicide Competency Assessment Form* (SCAF)—in a multistate sample of 223 public-sector vocational rehabilitation counselors. Both measures demonstrated very good to excellent internal consistency in our sample. Exploratory factor analysis indicated the SCI loads on a three-factor model whereas the SCAF loads on a single factor; these are consistent with the theoretical scale structures proposed by the original authors of the scales. In addition, both scales were highly correlated with each other, providing strong initial evidence of construct validity. In sum, our results support the use of these measures as a reliable and valid means of assessing perceived suicide assessment competency in rehabilitation counselors.

Keywords

assessment, measurement, competency development, professional training, rehabilitation counselors, psychiatric rehabilitation, suicide

Suicide is a pressing public health issue. More than 41,000 deaths in the United States are attributed to suicide each year (Centers for Disease Control and Prevention, 2015), with an estimated 25 suicide attempts occurring for each death (American Foundation for Suicide Prevention, 2015). Research has consistently shown that individuals with disabilities are at higher risk for suicide and suicidality (i.e., suicide ideation, plans, and attempts) compared with those without disabilities and with the general population (e.g., Lund, Nadorff, & Seader, 2016; Pompili et al., 2012; Wetzel et al., 2011). As professionals who work with individuals with disabilities in a counseling setting, vocational rehabilitation counselors may be at the front lines of assessing and preventing suicide in this population, and it is important that researchers and supervisors have tools to adequately assess rehabilitation counselors' competency and comfort in assessing and responding to suicidality in clients.

As counseling professionals working directly with individuals with disabilities, rehabilitation counselors may have ample exposure to individuals with disabilities who are experiencing suicidality. In addition, due to their background in counseling, rehabilitation counselors should have

the necessary core clinical skills to learn how to assess and intervene with clients who are experiencing suicidal thoughts; indeed, assessing for risk of harm to self or others is within the scope of practice of rehabilitation counseling (Commission on Rehabilitation Counselor Certification, 2010). Despite the relevant and pressing nature of this topic, however, we know of no published research that assesses rehabilitation counselors' competency in suicide assessment. Existing suicide assessment competency measures (e.g., Cramer, Johnson, McLaughlin, Rausch, & Conroy, 2013; Graham, Rudd, & Bryan, 2011) have been developed for other clinician populations, such as nurses, physicians, and psychology trainees. However, published psychometric data on these measures are very limited. Furthermore, these

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measures have not been evaluated for reliability or validity in rehabilitation counselors, leading to the question of whether these measures and their proposed structure provide valid and reliable data on perceived suicide assessment comfort and competency in this population specifically. Thus, the purpose of the present study is to evaluate the internal consistency, factor structure, and convergent validity of two published suicide assessment competency measures—the *Suicide Competency Inventory* (SCI; Graham et al., 2011) and the *Suicide Competency Assessment Form* (SCAF; Cramer et al., 2013)—in a multistate sample of vocational rehabilitation counselors to better establish their suitability for use in this population. The SCI is a measure that assesses professionals' level of comfort with and willingness to assess for suicidality and work with clients who are or have been suicidal. The SCAF is a measure that assesses professionals' perceived competency in skills related to suicide assessment and immediate intervention. The present analyses allow us to determine whether and how these measures can be used to assess self-perceived suicide assessment competency in rehabilitation counselors. Our research questions are as follows:

Research Question 1: What is the factor structure and reliability (internal consistency) of the SCI in a sample of rehabilitation counselors?

Research Question 2: What is the factor structure and reliability (internal consistency) of the SCAF in a sample of rehabilitation counselors?

Research Question 3: Do scores SCI and SCAF correlate with each other, supporting their convergent validity?

Method

Participants and Recruitment

Rehabilitation counselors working in the State/Federal Vocational Rehabilitation (VR) program completed the suicide competency measure as part of a study on suicide assessment, knowledge, and competency in this population. They were recruited via emails sent out by state and regional technical assistance directors and represented VR offices in eight states (Utah, Texas, North Dakota, South Dakota, Idaho, Oregon [Division of Blind Services only], New Mexico, and Alaska). The survey was online, anonymous, and confidential, and participants were informed that their responses were in no way tied to their employment and would only be reported in aggregate. The survey was hosted on a secure, university-based Qualtrics (2015) server and was optimized for screen reader accessibility. The study was approved by the university institutional review board (IRB) prior to data collection. Two hundred twenty-three participants had complete data on both the SCI and the SCAF and, thus, were included in the present analyses.

The sample was 69.1% female ($n = 154$) and 30.5% male ($n = 68$); one participant did not state the gender. The mean age was 44.53 years old ($SD = 11.95$ years; range = 24–71 years), with 215 participants reporting age. Texas was the most represented state ($n = 128$; 57.4%), followed by Utah ($n = 30$; 13.5%), Idaho ($n = 19$; 8.5%), South Dakota ($n = 16$; 7.2%), North Dakota ($n = 10$; 4.5%), New Mexico ($n = 9$; 4.0%). Alaska had four participants (1.8%) and Oregon had three (1.3%). Four participants (1.8%) did not indicate the state in which they practiced.

In terms of highest degree earned, 93.7% ($n = 209$) had master's degrees, and an additional 1.3% ($n = 4$) had doctorates. Eleven (4.9%) had bachelor's degrees. More than half ($n = 124$; 55.6%) were certified rehabilitation counselors (CRCs), 10.8% ($n = 24$) were licensed counselors, 3.1% ($n = 7$) were licensed addiction counselors, and 0.9% ($n = 2$) were licensed social workers. Two thirds ($n = 150$; 67.3%) reported having received training on suicide, and half ($n = 121$; 55.0%) reported working with suicidal clients more than once a year, with only 13 (5.8%) reporting that they never worked with suicidal clients. Slightly more than half (52.5%; $n = 117$) reported having a friend or family member who attempted or completed suicide. The mean number of years working in rehabilitation counseling was 9.92, with a standard deviation of 8.79 years and range of 0 to 41 years. Of the 220 participants who answered the question, 90% had worked in rehabilitation counseling for at least a year, and almost two thirds (62.7%; $n = 138$) had done so for more than 5 years.

Measures

Demographics. In the demographic questions, participants were asked their age, gender, number of years working in rehabilitation counseling, and state of employment. They were also asked about their educational background (highest degree and major), status as CRC, and about any additional licenses or certifications that they may hold. Furthermore, participants were asked how often they worked with clients who expressed suicidal thoughts or behaviors and whether they had a family member or friend who had attempted or completed suicide.

SCI. The suicide competency measure is a modified version of the 11-item suicide assessment competency measure developed by Graham and colleagues (2011). The original measure included three additional items assessing suicide training and experience; these were not included in the present study because the purpose was to assess perceived suicide competency and comfort. Other items assessing prior suicide training and experience were included in the demographic items of the survey.

Each item on the SCI is rated on a 5-point Likert-type scale (1 = *strongly disagree* to 5 = *strongly agree*). Items

representing hesitation or discomfort are reverse coded, so that higher scores represent higher comfort and competence in dealing with suicidal clients. The original measure used the terminology “patient”; this was changed to “client” in the current study. The items can be seen in Table 2. The possible scores on the measure range from 11 to 55; the mean score in the present sample was 41.97 ($SD = 7.9$), with a range of 13 to 55.

Graham and colleagues (2011) conceptualized the scale as having three subscales (Perceived Competency, Willingness to Treat, and Willingness to Assess). The first two items were conceptualized as assessing perceived competency, with the second four items assessing willingness to treat suicide, and the final five items assessing willingness to assess for suicide. In their sample of 195 primary care providers (physicians, nurses, and physician assistants), Graham and colleagues found that each of these three scales had adequate internal consistency ($\alpha = .82, .74, \text{ and } .88$, respectively). They found that the two willingness scales were significantly correlated but that perceived competency was only correlated with willingness to treat and not willingness to assess. However, they did not conduct any factor analysis to establish the construct validity of their proposed subscale structure, and did not compare the measure with any other suicide competency or comfort measure to establish criterion validity. Thus, we decided to conduct an exploratory factor analysis (EFA) to assess the factor structure of the SCI in a sample of rehabilitation counselors.

SCAF. The SCAF (Cramer et al., 2013) was developed for both self- and observer rating of suicide assessment competency, particularly in psychology trainees. The SCAF is designed to assess core competencies of suicide risk assessment and intervention as determined by an extensive review of the suicide assessment competencies outlined by major suicide prevention agencies and peer-reviewed research (Cramer et al., 2013). Reliability or validity data for the measure has not yet been published. The SCAF consists of 10 items on which respondents rate their perceived level of competence in different areas related to suicide assessment (e.g., notifying and involving other parties, assessing risk, developing a safety plan) on a 4-point Likert-type scale, with higher scores representing higher perceived competency. Items can be seen in Table 4. Scores of 1 are said to represent *incapability to perform the task*, scores of 2 represent *approaching or partial competency*, scores of 3 represent *competency*, and scores of 4 represent *advanced competency*. Total scores range from 10 to 40; the mean total score in the present sample was 24.79 ($SD = 6.66$), with a range of 10 to 40. The SCAF also allows for observer ratings of competency via live or video observation, but these were not used in the present study due to issues of confidentiality and practicality.

In addition to the total score, participants are also asked to rate their overall suicide assessment competency on a scale from 1 to 8. Scores from 1 to 2 represent *unacceptable competency* (“I have not been trained or am unable to do this task”), scores of 3 to 4 represent *working toward competency* (“I have been partially trained or educated to do this task”), scores of 5 to 6 represent *competent skill* (“I have adequate training and skill in this task”), and scores of 7 to 8 represent *advanced competency* (“I have exceptional skill on the most current techniques for this task”). Overall suicide assessment competency scores were available for 218 participants in the current sample; scores ranged from 1 to 8, with a mean of 3.71 ($SD = 1.69$).

Analyses

EFA was conducted for both measures using principal-axis factor analysis and varimax factor rotation. Eigenvalues of 1 were used as a cutoff in determining factor structure and supplemented with visual analysis of scree plots. Internal consistency (Cronbach’s α) was also assessed for both the total measures and any subscales that resulted from factor analysis. Finally, convergent validity was assessed by correlating total SCI scores, total SCAF scores, and overall suicide assessment competency scores from the SCAF.

Results

SCI

An initial correlation matrix (see Table 1) demonstrated a high degree of correlation among most items, and most item pairs were significantly correlated at least at the $p < .05$ level. Only Items 7 and 8 demonstrated non-significant correlations with other items. Item 7 (“I would be more hesitant to ask about suicidality in a client who is 20 years older than me.”) was not significantly correlated with Item 1 (“I am comfortable with the responsibility of treating suicidal clients.”), Item 2 (“I feel competent to treat clients in an acute suicidal crisis.”), Item 3 (“I would be willing to treat a depressed client who has made a suicide attempt in the past”), Item 4 (“I would be willing to treat a depressed client who has reported a suicide attempt over 5 years in the past.”), or Item 6 (“I would be willing to treat a depressed client who had made a suicide attempt in the past year.”). Item 8 (“I might refrain from asking a client about suicide out of fear of offending the client.”) was not significantly correlated with Items 1, 3, 5 (“I would be willing to treat a depressed client with suicidal thoughts.”), or 6. The measure also demonstrated very good overall internal consistency ($\alpha = .87$).

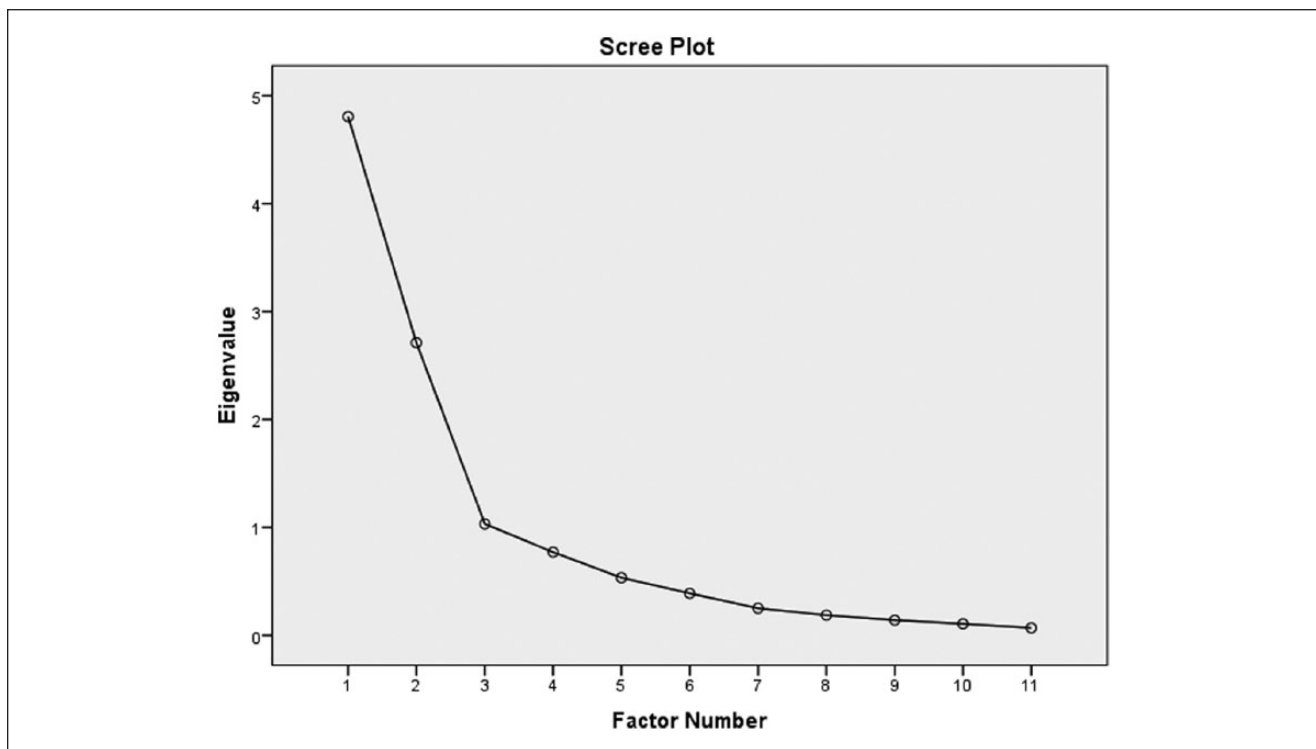
Bartlett’s Test of Sphericity ($p < .001$) and the Kaiser–Meyer–Olkin Measure of Sampling Adequacy (.832) both indicated that the SCI was suitable for factor analysis in the

Table 1. Correlation Matrix for SCI (Graham, Rudd, & Bryan, 2011).

	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8	Item 9	Item 10	Item 11
Item 1	—	.772**	.478**	.422**	.506**	.458**	.091	.113	.170*	.214**	.174**
Item 2	—	—	.539**	.508**	.497**	.491**	.116	.153*	.206**	.220**	.186**
Item 3	—	—	—	.924**	.850**	.891**	.097	.090	.161*	.217**	.170*
Item 4	—	—	—	—	.830**	.882**	.115	.141*	.182**	.202**	.166*
Item 5	—	—	—	—	—	.859**	.148*	.073	.201**	.269**	.192**
Item 6	—	—	—	—	—	—	.066	.084	.177**	.164*	.145*
Item 7	—	—	—	—	—	—	—	.417**	.337**	.577**	.507**
Item 8	—	—	—	—	—	—	—	—	.600**	.595**	.535**
Item 9	—	—	—	—	—	—	—	—	—	.486**	.422**
Item 10	—	—	—	—	—	—	—	—	—	—	.812**

Note. SCI = Suicide Competency Inventory.

* $p < .05$. ** $p < .01$.

**Figure 1.** Scree Plot for SCI.

Note. SCI = Suicide Competency Inventory.

present sample (Cerny & Kaiser, 1977; Snedecor & Cochran, 1989). Because orthogonal rotation demonstrated good fit, principal-axis factor analysis with varimax rotation was used to determine factor structure. A three-factor model explained 70.9% of the variance and produced eigenvalues well above 1 (4.81 and 2.71 for factors one and two, respectively) for two factors and slightly above 1 (1.03) for the third. Furthermore, a scree plot (see Figure 1) demonstrated a notable change in slope between two and three factors with a smaller but still notable drop after three factors.

The factor loadings for each item on their respective factor can be seen in Table 2. Qualitative review of the items suggests the same factor structure as proposed by Graham et al. (2011): a two-item competency factor, a four-item willingness to treat factor, and a five-item willingness to assess factor. Although a two-item factor is rather small, the factor loadings in Table 2, coupled with the eigenvalues mentioned above, indicate that the two competency items do indeed load best on their own factor. The internal consistency for the willingness to treat factor

Table 2. Factor Structure for SCI (Graham, Rudd, & Bryan, 2011).

Item	Willingness to treat	Willingness to assess	Competency
1. I am comfortable with the responsibility of treating suicidal clients.	.298	.105	.846
2. I feel competent to treat a client in an acute suicidal crisis.	.363	.135	.767
3. I would be willing to treat a depressed client who had made a suicide attempt in the past.	.927	.090	.236
4. I would be willing to treat a depressed client who had reported a suicide attempt over 5 years in the past.	.921	.111	.181
5. I would be willing to treat a depressed client with suicidal thoughts.	.848	.134	.256
6. I would be willing to treat a depressed client who had made a suicide attempt in the past year.	.916	.063	.207
7. I would be more hesitant to ask about suicidality in a client who is 20 years older than me. ^a	.046	.610	.018
8. I might refrain from asking a client about suicide due to fear of offending the client. ^a	.019	.716	.053
9. I worry that bringing up suicide with a client might make the problem worse. ^a	.107	.586	.103
10. I would be more hesitant to ask a male client about suicide. ^a	.115	.897	.089
11. I would be more hesitant to ask about suicidal tendencies in a client who was of higher social status or rank than me. ^a	.081	.806	.068

Note. SCI = Suicide Competency Inventory.

^aItem was reverse scored.

Table 3. Correlation Matrix for SCAF (Cramer, Johnson, Mclaughlin, Rausch, & Conroy, 2013).

	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8	Item 9	Item 10
Item 1	.576***	.476***	.585***	.499***	.453***	.506***	.440***	.509***	.520***
Item 2	—	.429***	.496***	.444***	.409***	.515***	.429***	.418***	.488***
Item 3	—	—	.708***	.726***	.665***	.541***	.612***	.547***	.560***
Item 4	—	—	—	.761***	.688***	.550***	.658***	.570***	.628***
Item 5	—	—	—	—	.717***	.571***	.682***	.626***	.567***
Item 6	—	—	—	—	—	.496***	.738***	.582***	.682***
Item 7	—	—	—	—	—	—	.589***	.589***	.538***
Item 8	—	—	—	—	—	—	—	.598***	.633***
Item 9	—	—	—	—	—	—	—	—	.619***

Note. SCAF = Suicide Competency Assessment Form.

*** $p < .001$.

was excellent ($\alpha = .96$), and the internal consistency for the competency ($\alpha = .87$) and willingness to assess ($\alpha = .85$) factors were very good (George & Mallery, 2003).

SCAF

Similar to the SCI, we conducted an EFA on the SCAF. An initial correlation matrix (see Table 3) found that all items were significantly correlated at the $p < .001$ level. Internal consistency was also excellent ($\alpha = .93$). Bartlett's Test of Sphericity ($p < .001$) and the Kaiser–Meyer–Olkin Measure of Sampling Adequacy (.932) both indicated that the SCAF was suitable for factor analysis in the present sample.

EFA using principal-axis factor analysis revealed a one-factor model for the measure, with factor loadings ranging from .598 to .843, as shown in Table 4. A one-factor model also produced an eigenvalue well above 1 (6.16) and explained 57.6% of the variance. Likewise, a scree plot (see Figure 2) indicated a large drop from a one-factor model to a two-factor one, again suggesting that a one-factor model is the best fit for the data.

Convergent Validity

Because the SCI and the SCAF both measure aspects of perceived suicide assessment competency, we would expect the measures to be correlated with each other. Similarly, we

Table 4. Factor Loading for SCAF (Cramer, Johnson, McLaughlin, Rausch, & Conroy, 2013).

Item	Factor loading
1. Know and manage your attitude and reactions toward suicide	.654
2. Maintain a collaborative, empathetic stance toward the client	.598
3. Know and elicit evidence-based risk and protective factors	.782
4. Focus on current plan and intent of suicidal ideation	.843
5. Determine level of risk	.838
6. Develop and enact a collaborative evidence-based treatment plan	.813
7. Notify and involve other persons	.710
8. Document risk, plan, and reasoning for clinical decisions	.801
9. Know the law concerning suicide	.742
10. Engage in debriefing and self-care	.770

Note. SCAF = Suicide Competency Assessment Form.

would expect the overall rating of suicide assessment competency from the SCAF to correlate with both the total SCAF score and the SCI. Indeed, the SCAF and the SCI were significantly correlated in the present sample ($r = .584, p < .001$). The overall rating of suicide assessment competency on the SCAF was also significantly correlated with both the SCAF total score ($r = .815, p < .001$) and the SCI ($r = .586, p < .001$). These results suggest that all three scores do, in fact, measure closely related constructs (i.e., perceived suicide assessment competency). Furthermore, the SCAF total score was also significantly correlated with the SCI Competency subscale ($r = .743, p < .001$), Willingness to Treat subscale ($r = .396, p < .001$), and Willingness to Assess subscale ($r = .292, p < .001$). The overall rating of suicide assessment competency on the SCAF was also significantly correlated with the Competency ($r = .730, p < .001$), Willingness to Treat ($r = .442, p < .001$), and Willingness to Assess ($r = .245, p < .001$) subscales of the SCI.

Discussion

The present study examined the internal consistency, factor structure, and convergent validity of two suicide assessment competency measures in a sample of 223 vocational rehabilitation counselors. The two measures assessed were the SCI (Graham et al., 2011) and the SCAF (Cramer et al., 2013). Limited psychometric data are available for the SCI, and the available psychometric data are from a relatively small ($n = 195$) sample of primary care providers and, thus, may not translate to rehabilitation counselors. No psychometric data are yet published for the SCAF. In response to

these limited data and the need for valid and reliable suicide assessment competency measures for use with rehabilitation counselors, we conducted EFAs on both measures; we also analyzed internal consistency and convergent validity across both measures.

Our results suggest that the SCI indeed fits the three-factor model proposed by Graham and colleagues (2011). We found that the SCAF loads on a single factor. Both measures demonstrated very good to excellent internal consistency. Furthermore, the total SCI score, total SCAF score, and overall rating of suicide assessment competency on the SCAF were all highly correlated, suggesting that they do, in fact, measure similar constructs. As would be experienced the SCAF total score and SCAF overall perceived competency score both were especially highly correlated with the SCI Competency subscale. However, they were also significantly correlated with the SCI total score and the SCI Willingness and Hesitancy subscales. This provides further support for both the SCI subscale factor structure and the utility of the SCI total score as well.

Limitations

Although these data provide good preliminary support for the validity and reliability of the SCI and SCAF among rehabilitation counselors and associated support staff, limitations should also be noted. First, although this study draws from a multistate sample, it is not a national sample. This somewhat limits the generalizability of the results. Similarly, participants may have self-selected for participation based on experience with or interest in suicide and suicide assessment and, thus, may have scored higher or differently than those who chose not to participate. Second, the current study assessed the reliability of the measures at a single point in time only and, thus, we cannot make statements about the reliability of the measures across time. Finally, we did not assess for divergent validity of the measures or assess the observer-rater function of the SCAF. Future research should establish divergent construct validity and test-retest reliability of these measures among rehabilitation counselors and other populations.

Implications

As professionals in a community-based program, rehabilitation counselors are frequently the first—and in some cases, the only—professionals to encounter consumers who are experiencing suicidal ideation. As such, they are required to have demonstrated competency in this area of practice to provide the best possible intervention. Despite the high prevalence of suicidal ideation and behaviors among the consumers they serve (e.g., Lund et al., 2016; Pompili et al., 2012), there is limited attention given to this topic in both pre-service and in-service educational settings. To improve the level of

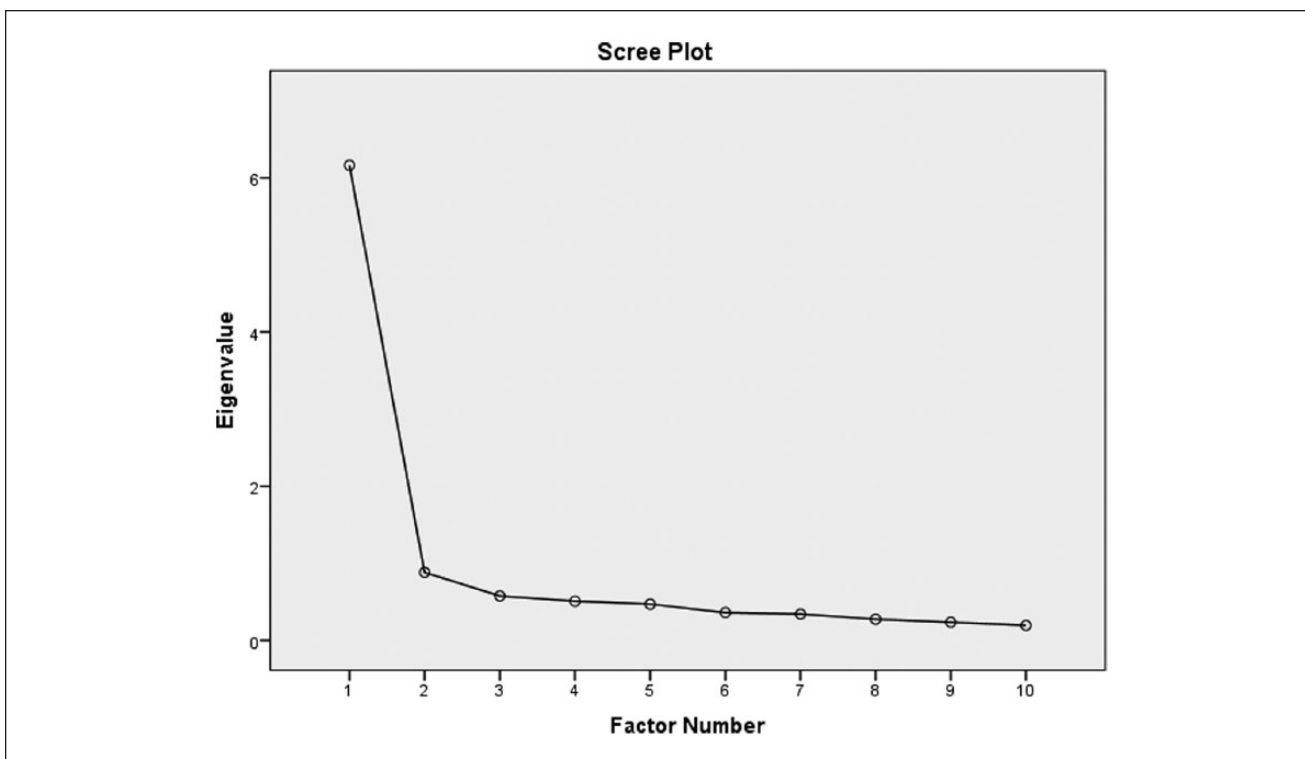


Figure 2. Scree Plot for SCAF (Cramer, Johnson, Mclaughlin, Rausch, & Conroy, 2013).
 Note. SCAF = Suicide Competency Assessment Form.

training, the implementation of evidence-based practice, and assessment of competency in rehabilitation counselors, valid and reliable instruments must be available to assess both the current functioning of professionals and the impact of training activities.

Both the SCAF and SCI demonstrated very good to excellent internal consistency and strong evidence of convergent validity in our sample of rehabilitation counselors. These results provide preliminary support for the use of these measures to assess perceived suicide assessment competency in this population. Furthermore, they also suggest that the SCAF loads on a single factor whereas the SCI does indeed load on the three factors of competency, willingness to treat, and willingness to assess as suggested by the authors of the measure (Graham et al., 2011). In sum, these results suggest that these measures are valid and reliable measures of self-perceived comfort and competence with suicide assessment in rehabilitation counselors working in the public sector. With valid and reliable instruments to measure the comfort and competence of rehabilitation counselors in working with consumers who are experiencing suicidal ideation and behavior, the field can more thoroughly assess current practice and training needs. This is a critical step forward in addressing an essential element of professional practice that has significant ramifications for the consumers being served.

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References

- American Foundation for Suicide Prevention. (2015). *Suicide statistics*. Retrieved from <https://afsp.org/about-suicide/suicide-statistics/>
- Centers for Disease Control and Prevention. (2015). *Suicide facts at a glance*. Retrieved from <http://www.cdc.gov/violenceprevention/pdf/suicide-datasheet-a.pdf>
- Cerny, C. A., & Kaiser, H. F. (1977). A study of a measure of sampling adequacy for factor-analytic correlation matrices. *Multivariate Behavioral Research, 12*, 43–47.
- Commission on Rehabilitation Counselor Certification. (2010). *Code of professional ethics for rehabilitation counselors*. Schaumburg, IL: Author.

- Cramer, R. J., Johnson, S. M., McLaughlin, J., Rausch, E. M., & Conroy, M. A. (2013). Suicide risk assessment for psychology doctoral programs: Core competencies and a framework for training. *Training and Education in Professional Psychology, 7*, 1–11.
- George, D., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference*. Boston, MA: Allyn & Bacon.
- Graham, R. D., Rudd, M. D., & Bryan, C. J. (2011). Primary care providers' views regarding assessing and treating suicidal patients. *Suicide and Life-Threatening Behavior, 41*, 614–623.
- Lund, E. M., Nadorff, M. R., & Seader, K. (2016). The relationship between suicidality and disability when accounting for depressive symptomology. *Rehabilitation Counseling Bulletin, 59*, 185–188.
- Pompili, M., Forte, A., Palermo, M., Stefani, H., Lamis, D. A., Serafini, G., & Girardi, P. (2012). Suicide risk in multiple sclerosis: A systematic review of current literature. *Journal of Psychosomatic Research, 73*, 411–417.
- Snedecor, G. W., & Cochran, W. G. (1989). *Statistical methods* (8th ed.). Iowa City: Iowa State University Press.
- Wetzel, H. H., Gehl, C. R., Dellefave-Castillo, L., Schiffman, J. F., Shannon, K. M., & Paulsen, J. S. (2011). Suicidal ideation in Huntington disease: The role of comorbidity. *Psychiatry Research, 188*, 372–376.