The Development and Evaluation of the French Version of the Schwartz Outcome Scale-10 (SOS-10-F)

John M. Laux
The University of Toledo
Jennifer L. Young
The University of Wisconsin-Madison
Laura P. McLaughlin
The University of Toledo
Dilani Perera-Diltz
Cleveland State University

ABSTRACT

The Schwartz Outcome Scale-10 (SOS-10) is an effective measure of change in inpatient and outpatient populations, as well as student counselling centres, chemically dependent populations, and research projects. The utility of the SOS-10 in Canada is limited because there is currently no French version of this instrument. This study reports on a three-phase process (initial translation from English to French, evaluation of the online English SOS-10, and establishing equivalency between English online and French online versions) of development and validation of a French version of the SOS-10.

RÉSUMÉ

Le Schwartz Outcome Scale-10 (SOS-10) est une mesure efficace des changements dans les populations de malade hospitalisé et de malade externe, ainsi que dans les centres de conseil d'étudiant, les populations chimiquement dépendantes, et les projets de recherche. L'utilité du SOS-10 au Canada est limitée parce qu'il n'y a pas actuellement de version française de cet instrument. Cette étude rend compte d'un procédé en trois phases (la traduction initiale de l'anglais vers le français, l'évaluation de la version anglaise du SOS-10 en ligne, et la détermination de l'équivalence de la version en ligne anglaise et française) du développement et de la validation d'une version française du SOS-10.

Counsellors and researchers must answer the question, "Does couselling really work?" If so, how is counselling-related change adequately measured? Traditionally, subjective approaches, such as client self-report and counsellors' clinical judgement, have been the primary methods of outcome evaluation because more formalized assessment methods of treatment outcome are prohibitive due to cost or length of time to administer (Miller, Duncan, & Hubble, 2005). Nevertheless, counsellors need to document the effectiveness of their interventions (Sexton, 1996) in order to assess the clinical benefit of therapy with clients (Barkham et al., 1998), maintain support from third-party payers (Joint Commission on Accreditation of Healthcare Organizations, 1997), and establish the validity of their methods and procedures. This article considers the relevance of the Schwartz Outcome Scale (SOS-10-F) as a measure of counselling effectiveness and describes the results

of research conducted to determine the psychometric equivalency of the French translation of the scale (Blais et al., 1999).

Outcome measures can be utilized by counsellors at the conclusion of counselling as well as periodically during the course of counselling, in order to augment or change their interventions as needed. As therapists adjust their interventions to meet their clients' needs, the likelihood increases that clients will experience change. Therapeutic effectiveness is typically measured by comparing clients' current functioning with examples from some previous point in time. Assessment is typically focused on clients' overall sense of well-being as well as their psychological functioning interpersonally, socially, and individually. Thus, counsellors employ outcome measures to gain an understanding of how therapy has impacted clients' lives, to adjust treatment interventions, and to provide a measure of how functioning has changed over the course of therapy. Challenges to this process include burdensome assessment features such as length or invasiveness of available assessments (e.g., the Symptoms Checklist-90-Revised [Derogatis, 1983], and the Brief Psychiatric Rating Scale [Overall & Gorham, 1962]). In fact, comprehensive measures that assess numerous therapeutic markers may be less effective in detecting significant outcome changes than parsimonious measures (e.g., Lee, Jones, Goodman, & Heyman, 2005). Comprehensive and multidimensional instruments, such as the Minnesota Multiphasic Personality Inventory-2 (Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989), tend to measure traits, rather than the states, which are more flexible and therefore more subject to the influence of counselling.

One such brief instrument is the Schwartz Outcome Scale-10 (SOS-10; Blais et al., 1999). The SOS-10 was introduced to provide counsellors with a brief, cost-effective, unobtrusive, and easy-to-administer outcome measure. The SOS-10 is a 10-question, objective, paper-and-pencil, self-report scale that measures broad domains of mental health. The range of responses to the six-point scale is "never" to "all the time." Since its introduction, the SOS-10 has been shown to be an effective measure of change in inpatient (Blais et al.) and outpatient populations (Hilsenroth, Ackerman, & Blagys, 2001), as well as student counselling centres, chemically dependent populations, and research projects (Blais et al.; Laux & Ahern, 2003; Young, Waehler, Laux, McDaniel, & Hilsenroth, 2003).

The popularity and utility of the SOS-10 in English-speaking populations led to the development and publication of a Spanish version (Rivas-Vazquez et al., 2001). At this time the SOS-10 is only available for use with English and Spanish speakers. However, French is the second most commonly-taught second language (Shryock, 2006) and the 11th most common first language (Ethnologue. com, 2005). In Canada, the number of Canadians who speak both French and English rose demonstrably between 1951 and 1996 (Canada Online, 2004). Approximately 17% of Canadians are bilingual, and an additional 14% speak French only (English-French Bilingualism, 2004). Assessments must be available in both French and English versions to be widely used in Canada. Therefore, the purpose of this study was to translate the English SOS-10 into a French version. This study was conducted in three phases. In the first phase the English SOS-10 was translated

into French. Next, the psychometric equivalence between the paper-and-pencil English SOS-10 and a Web-based English SOS-10 was established. Finally, the French SOS-10 was posted on a Web-based survey host, and professors of French in Canada and the United States were recruited to participate in an investigation into the psychometric equivalency between the paper-and-pencil English version of the SOS-10 and the online English version of the SOS-10.

METHOD

Phase 1: Initial Translation from English to French Instrument

The SOS-10 (Blais et al., 1999) is a 10-item scale designed to measure psychological well-being. The range of scores per item is 0-6, with a possible total score range of 0-60; higher scores represent a greater degree of psychological health and well-being. Blais et al. developed an initial item pool for the SOS-10 in a two-step process. First, the authors reviewed the literature on outcome research. Second, mental health experts and patient focus groups were asked to highlight life changes one could expect as a result of successful treatment. Next, items were eliminated based on a review of the participant responses from six clinical and non-clinical settings. The remaining items showed no vulnerability to ceiling effects and successfully discriminated among outpatients, inpatients, and nonpatients. A factor analysis using varimax rotation was conducted and items consistently loaded onto one factor. The authors reported other strong psychometrics including internal consistency (Cronbach's alpha = .96), item-to-scale correlations (.74 to .90), and a principal components factor analysis revealing one factor that accounted for 76% of the total variance. Convergent validity was established with measures of well-being (r = .86), satisfaction with life (r = .78), self-esteem (r = .81), and positive affect (r = .67) (Blais et al.). Blais et al. reported as evidence of divergent validity negative correlations with measures of psychiatric symptoms (r = -.66), hopelessness (r = -.64), and negative affect (r = -.72). A Spanish version of the SOS-10 has been shown to be a reliable measure of psychological well-being and treatment outcomes among Spanish-speaking individuals (Rivas-Vazquez et al., 2001). Further, the SOS-10 has been shown to be a reliable and valid measure of outcome in numerous settings including inpatient settings (Blais et al.), outpatient settings (Hilsenroth et al., 2001; Young et al., 2003), college counselling centres, and psychotherapy research projects (Young et al.).

METHOD

Our translation and back translation process was modelled after the process used by Rivas-Vasquez et al. (2001) during their translation of the SOS-10 into Spanish. A bilingual French immigrant to the United States provided the initial SOS-10 French translation. Two bilingual persons residing in France conducted the back-translation process. The French SOS-10 was further refined by two university French professors until they agreed upon the final translation of the text (Appendix A).

Phase 2: Evaluation of the On-Line English SOS-10

Our goal was to collect data from university-level French professors using Webbased data collection techniques. The researchers employed an online survey method of data collection to facilitate the recruitment of bilingual persons from diverse settings and locations. The redesign of psychological assessment for effective and efficient administration by interactive computers is known as computer adaptive testing (CAT; Weiss, 2004). The CAT process for online data collection has many advantages including reduced response time, lowered costs, and ease of data entry (Granello & Wheaton, 2004; Wall, Baker, & Sampson, 2004). Weiss compared CAT to conventional testing (paper and pencil) and reported substantial similarity between scores obtained from these procedures. While Lazar and Preece (1999) concluded that paper-and-pencil and computerized administration procedures are equal, others (e.g., Lumsden, Sampson, Reardon, Lenz, & Peterson, 2004) argue that such equality cannot be assumed. As such, each time an instrument is configured for online use it is important that equivalency of scores be tested. This point of view is expressed in the Standards for Educational and Psychological Testing (American Educational Research Association, American Psychological Association, & National Council on Measurement in Education, 1999), which reads, "A clear rationale and supporting evidence should be provided for any claim that scores on different forms of a test may be used interchangeably" (Standard 4.10, p. 57). Therefore, prior to investigating the comparability of the online versions of the French and English SOS-10, it was imperative to first investigate the degree of congruence between the English paper-and-pencil version of the SOS-10 and an English Web-based version.

METHOD

The senior author obtained permission from introductory psychology professors at a large, urban public university in the midwestern United States to enter their classrooms, describe the project, and seek students' participation. This process, including the completion of an informed consent document, a demographic data collection form, and the paper-and-pencil version of the SOS-10, required approximately 15 minutes. A strip of paper was attached to the paper-and-pencil version on which a participant coding number and a Web address were printed. Students detached this strip from their study materials and were encouraged to log on to the provided Web address and complete the Web-based version of the instrument the same day as they completed the paper-and-pencil version. Because the SOS-10 asks respondents to reflect on the last 7 days of their life, only data sets collected on the same day were included in the analyses. Consent forms were stored separately from the raw data.

PARTICIPANTS

A total of 121 students were invited to participate. Ten students declined to participate and 4 students completed the paper-and-pencil version of the SOS-10 but did not provide data for the online version. The final sample (88% response rate) consisted of 107 (88.4%) women and 14 (11.6%) men, whose mean age

was 25.9 years (SD = 10.4, range = 18–61). The mean number of years of college education completed was 3.6 (SD = 2.95, range = 0–14). Participants' current employment status was as follows: 64 (52.9%) full-time student, 23 (19%) full-time employed, 23 (19%) part-time employed, 5 (4.1%) not employed, 1 (.8%) homemaker, 1 (.8%) retired, 3 (2.5%) "other," and one who did not indicate an employment status. Participants self-reported their ethnic heritage as the following: 96 (79.3%) European American, 13 (10.7%) African-American, 4 (3.3%) Biracial, 2 (1.7%) Native North American, 1 (.8%) Asian, 2 (1.7%) Hispanic, and 1 (.8%) "other." Two participants did not identify an ethnic heritage.

RESULTS

The adjusted item-to-scale correlations for the paper-and-pencil and online version of the English SOS-10 are presented in Table 1. All adjusted item-to-scale correlations were significant at the p < .01 level and were greater in magnitude than Nunnally and Bernstein's (1994) minimum recommendation of .30. The mean adjusted item-to-scale correlations for the paper-and-pencil version and the online version were .58 and .68, respectively.

Table 1
Adjusted Item to Scale Correlations for the Paper-and-Pencil and Online Versions of the SOS-10

	Item-to-scale c	orrelations	
	Paper-and-pencil	Online	
SOS-10 item			
Physical functioning	.44	.55	
Confidence	.53	.66	
Hopeful	.46	.62	
Interested in life	.63	.73	
Have fun	.53	.67	
Psychological health	.70	.80	
Forgive self	.59	.62	
Life is progressing	.66	.72	
Handle conflicts	.49	.66	
Peace of mind	.72	.78	

Note. N = 121. Adjusted item-to-scale correlations were calculated by correlating SOS-10 (total score minus the item) and the item. All correlations were significant at p < .01.

The correlations between the two versions' total scores (r = .96, p < .001) and each version's individual items, as well as each item's mean score, standard deviation and range of scores are presented in Table 2. The correlation coefficients ranged from a low of .77 to a high of .88. Mean differences were observed between the two versions' individual items; however, these differences were not statistically significant (Table 2). The calculated Cronbach's alpha for each version was larger than Nunnally's (1978) optimal level of .70 or higher. A Fisher z transformation process produced a calculated z of 1.27, which, being smaller than the critical value

 z_{cv} of 1.96 (p = .05), indicates that the paper-and-pencil and online Cronbach alphas were not statistically different from one another.

The SOS-10 is conceived of as a unidimensional measure of overall psychological wellness. While subsequent researchers have supported this assertion (e.g., Young et al., 2003), it was important to test the scale's dimensionality in this sample. An unrotated principal components factor analysis was conducted on the paper-and-pencil and online versions. The analysis of each version yielded a one-factor solution that accounted for 44% (paper) and 52% (Web-based) of the total variance (Table 3). Finally, neither version's total scores was associated with participants' age, education, or gender.

Phase 3: Establishing Equivalency between English Online and French Online Versions

METHOD

The researchers next investigated the relationship between the Web-based English SOS-10 (SOS-10-EO) and Web-based French SOS-10 (SOS-10-FO). The researchers visited the website of every college and university in Canada and the United States to locate e-mail contacts for French professors. Approximately 2,835 e-mails were sent to professors in the United States, and 306 were sent to professors in Canada. The researchers solicited recipients' participation in the study and asked them to forward the participation request to anyone else believed to possess the bilingual skills necessary to complete the study. Information about what would be required, the study's approval by the human subjects board, and a hypertext link to the Web page hosting the study were included. An uncounted number of e-mails were returned as undeliverable. It is impossible to know what percentage of solicitations were actually read versus those that were discarded without consideration. Further, we have no way of knowing how many persons received forwarded invitations to participate in the study by the original solicitation recipients. The authors provided a link to the website that hosted the data collection survey. Participants first viewed a Web page on which the authors described the nature and purpose of the study. Participants were then advised that their consent to participate was assumed if they followed the provided link to the survey. Participants provided standard demographic data as well as their native language, their country of origin, and their current country of residence on the second page. The third and fourth pages, respectively, contained the French and English versions of the SOS-10. Upon completion, participants were linked to a page on which the researchers thanked them for their participation and gave their contact information for the participants' future reference. All data were stored in a password-protected account.

PARTICIPANTS

The Phase 3 sample consisted of 267 (74.4%) women and 92 (25.6%) men. The mean age was 34.9 years (SD = 13.3, range = 17–80). The mean number of years of college education was 6.7 (SD = 3.5, range = 0–20). Participants' current employment status was: 161 (44.8%) full-time employed, 147 (40.9%) full-time student, 39 (10.9%) part-time employed, 5 (1.4%) part-time student, 4 (1.1%) retired, 2 (.6%), not employed, and 1 (.3%) disabled. Self-reported ethnic heritage

Table 2
Means, Standard Deviations, Correlations, and t Values for the English Paper-andPencil and the English Online Versions of the SOS-10

	Paper		Onl	ine			
	M	SD	М	SD	r	<i>t</i> value ^a	Effect size
SOS-10 item							
Physical functioning	4.50	1.15	4.69	1.04	.88*	-1.15	14
Confidence	4.89	1.09	4.93	.93	.85*	.32	04
Hopeful	5.15	.89	4.99	.98	.81*	1.30	.17
Interested in life	4.89	.88	4.98	.89	.82*	73	10
Have fun	5.13	.83	5.03	.84	.84*	.93	.12
Psychological health	4.79	1.02	4.77	1.01	.86*	.19	.02
Forgive self	4.07	1.27	4.10	1.21	.80*	.16	02
Life is progressing	4.48	1.10	4.62	0.99	.83*	-1.04	13
Handle conflicts	4.66	.86	4.69	.82	.77*	.31	04
Peace of mind	4.64	.95	4.78	1.02	.81*	-1.04	14
Total score	47.21	6.64	47.58	6.99	.96*	42	05
Coefficient alpha	.85		.89				

Note. N = 121.

Table 3
Factor Loadings for the English Paper-and-Pencil and English Online Versions of the SOS-10 Using Principal Components Analyses (N = 121)

	Fac	tor 1	
	Paper	Online	
SOS-10 item			
Physical functioning	.57	.62	
Confidence	.66	.70	
Hopeful	.54	.64	
Interested in life	.71	.77	
Have fun	.58	.68	
Psychological health	.78	.82	
Forgive self	.64	.68	
Life is progressing	.77	.75	
Handle conflicts	.55	.68	
Peace of mind	.78	.84	
Eigenvalue	4.38	5.20	
Percent variance	43.8	52.04	

was as follows: 234 (65.2%) European, 66 (18.4%) Other, 30 (8.4%) Canadian, 11 (3.1%) Hispanic, 6 (1.7%) African, 3 (.8%) Native North American, 3 (.8%) Asian, 3 (.8%) Biracial, and 1 (.3%) Arabian. Two participants did not identify their ethnic heritage. Two hundred and sixty-three (73.3%) indicated that English is their native language, and 79 (22%) reported that their native language is French.

^aAll t values are paired t tests with 1 and 119 degrees of freedom, and all values are nonsignificant.

^{*} p < .001.

RESULTS

The results of the adjusted item-to-scale correlations for the SOS-10-EO and SOS-10-FO are presented in Table 4. All adjusted item-to-scale correlations were significant at the p < .01 level and were above .40. The mean adjusted item-to-scale correlation for the FO and EO versions were .64 and .71, respectively. This suggests that both the EO and FO versions demonstrated acceptable item-to-scale estimates.

Table 4
Adjusted Item-to-Scale Correlations for the French and English Online Versions of the SOS-10

	Item-to-Scale	e correlations	
	French	English	
SOS-10 item			
Physical functioning	.73	.78	
Confidence	.79	.83	
Hopeful	.67	.74	
Interested in life	.60	.70	
Have fun	.63	.71	
Psychological health	.59	.67	
Forgive self	.59	.67	
Life is progressing	.60	.67	
Handle conflicts	.60	.67	
Peace of mind	.60	.69	

Note. N = 359. Adjusted item-to-scale correlations were calculated by correlating SOS-10 (total score minus the item) and the item. All correlations were significant at p < .01.

The correlation coefficients for the FO and EO scales' individual items and total score as well as a test of their mean score differences are reported in Table 5. To control for alpha level build-up (Newman, Fraas, & Laux, 2000), a Bonferonni correction technique was employed. This technique produced an adjusted alpha of .0045. The FO and EO versions were highly correlated (r= .97). Each version's individual items were also highly correlated, with a range from .80 to .89. Mean differences were observed between the two versions' individual items. Except for Item 5, "have fun," none of these differences were statistically significant or produced meaningful effect size differences (Cohen, 1992). The mean difference between the FO and EO on Item 5 was statistically significant and produced a small effect size of .25. The FO and EO versions' Cronbach alpha estimates exceeded Nunnally's (1978) optimal level of .70. A Fisher z transformation process produced a calculated z of 2.23, which, being larger than the critical value z_{cv} of 1.96 (p = .05), indicates that the English online version's Cronbach alpha was statistically larger than the French online version.

The results of an unrotated principal components factor analysis for the FO and EO versions are reported in Table 6. Both solutions produced one underlying

factor accounting for 52% and 59% of the total variance, respectively. Neither the FO nor the EO versions' total scores were significantly correlated with the participant's age, education, or gender.

Table 5
Means, Standard Deviations, Correlations, and t Values for the French and English
Online Versions of the SOS-10

	French		Eng	lish			
	M	SD	М	SD	r	<i>t</i> value ^a	Effect size
SOS-10 item							
Physical functioning	4.47	1.06	4.52	0.99	.89*	62	05
Confidence	4.81	0.99	4.81	0.96	.80*	0.00	.00
Hopeful	4.53	1.09	4.52	1.12	.89*	.10	.01
Interested in life	4.60	1.17	4.61	1.09	.88*	0.00	01
Have fun	5.00	0.95	4.76	0.99	.86*	3.26*	.24
Psychological health	4.32	1.21	4.23	1.24	.88*	0.98	.07
Forgive self	3.89	1.26	3.86	1.25	.89*	7	.03
Life is progressing	3.92	1.19	4.06	1.14	.88*	-1.60	12
Handle conflicts	4.33	1.13	4.37	1.08	.88*	44	03
Peace of mind	3.94	1.30	4.09	1.28	.88*	-1.53	11
Total score	43.81	8.18	43.76	8.57	.97*	0.00	.01
Coefficient alpha	.89		.92				

Note. N = 359.

Table 6
Factor Loadings for the French and English Online Versions of the SOS-10 Using Principal Components Analyses (N = 359)

	Fac	tor 1	
	French	English	
SOS-10 item			
Physical functioning	.53	.57	
Confidence	.74	.79	
Hopeful	.81	.83	
Interested in life	.75	.80	
Have fun	.64	.73	
Psychological health	.82	.84	
Forgive self	.69	.75	
Life is progressing	.75	.79	
Handle conflicts	.66	.72	
Peace of mind	.77	.83	
Eigenvalue	5.18	5.90	
Percent Variance	51.79	58.98	

^aAll t values are paired t tests with 1 and 358 degrees of freedom.

^{*}p < .001.

DISCUSSION

The significant item-to-scale correlations between the online and paper-and-pencil versions of the SOS-10 as well as the solid item internal consistency values support the reliability of the online measure. Participants' individual item scores as well as total scores on the two measures were highly correlated, suggesting they are measuring the same construct. These findings provide initial evidence for the concurrent criterion-related validity of the online measure. It is useful to understand our study's four SOS-10 mean scores in the context of those from other non-clinical samples. The mean SOS-10 scores from the phases II and III were approximately 47 and 43, respectively. These means are consistent with those described by Young et al. (2003), who reported undergraduate mean SOS-10 scores from a large university in the southern United States (47) and from a large university in the midwestern United States (45).

Our results provide evidence of the SOS-10's concurrent criterion-related validity with French-speaking individuals. The significant item-to-scale correlations between the English and French online versions of the SOS-10 suggest items were tapping into the construct of psychological well-being on both versions. Interestingly, the French online version demonstrated greater internal consistency than the English online version. While both measures appear to assess the construct of psychological well-being, there may be more variations in the item connotations used among English-speaking groups, leading to greater differences in interpreting the content of the items, resulting in a lower internal consistency.

The highly significant correlations for each item and total scores of each measure, as well as the strong coefficient alphas, support the internal consistency of the FO. Participants answered each item similarly on the EO and the FO, suggesting the same construct is being measured on each measure. Although differences were found in the comparison of mean item scores and mean total scores between the measures, none of these differences were significant, except Item 5. The majority of highly correlated scores and small effect sizes suggest the EO and FO are measuring the same construct. Item 5 asks respondents to indicate the degree to which they were able to "have fun." The participants' mean scores on Item 5 were significantly higher on the French version than on the English version, suggesting that when individuals completed the French version, they rated themselves as being able to "have fun" more frequently. According to Cohen's (1992) rubric, Item 5's .25 effect size difference between the respective mean scores is considered to be small in magnitude. Although the .2 difference in mean scores was found to be statistically significant, the clinical meaning is minimal. Since the other nine items appear to be measuring the same concepts, the accuracy of the translation for Item 5 should be reviewed further. Additionally, since this was a within-subjects design, all participants completed both versions of the SOS-10 and it would be reasonable to assume that they would not change their minds about their frequency of having fun from one measure to another, suggesting the need for future refinement in the translation process.

The results of our factor analyses provide additional support for the validity of the French online version of the SOS-10. Factor analyses on both the English and French online versions produced one underlying factor accounting for similar levels of the total variance. Total scores on both measures were independent of participant demographic variables, suggesting the French version, like the English version, is measuring the overall construct of psychological well-being, regardless of the participants' age, education level, or gender orientation.

Although the results of our study are generally supportive, there are some limitations to the study. For example, the number of college students who completed both the paper-and-pencil version and the online version of the SOS-10 was low. Smaller sample sizes reduce a study's power, or the ability for the statistical procedures to detect differences or relationships if they do exist. Further, those who took the time to complete the online version after their class ended may be different in various characteristics, such as motivation level, conscientiousness, or time management, than those who failed to complete the online version. These potential differences may have played a role in response differences. These additional variables were not measured in our study. Further, in Phase 3, the EO was administered prior to the FO; these measures were not counterbalanced due to limitations in the design of the data collection Web host. To reduce any extraneous factors associated with order of the measures administered, it would be helpful for future research to counterbalance the presentation of the measures. Because the SOS-10 references the most recent 7-day time period and because asking people to log on to a website twice in one day was deemed impractical, the researchers decided to administer both versions of the instrument consecutively. This fact opens the door to the possibility that respondents' answers on the second instrument may have been influenced by their memory of their answers on the first.

Our data were based upon self-report information, subject to method variance or social desirability. Additionally, there are some limitations to a World Wide Web-based research design. There was the possibility that each participant could submit as many surveys as so desired. The researchers asked each participant to submit only one survey, but there were no checks to ensure that this actually happened. Participants could also obtain assistance in filling out the surveys since there was no one present to ensure individuals answered without assistance.

The SOS-10-FO appears to be a reliable and valid instrument and is equivalent to the English version; however, additional research is needed to examine its usefulness as an outcome measure. For example, examining the relationship between the SOS-10-FO and other French well-being measures would provide additional validity evidence. Finally, additional comparability studies of paper-and-pencil measures with online measures in samples comprising non-college student samples would also help expand the reliability and validity of the SOS-10-FO.

Notwithstanding these limitations, the results suggest that the SOS-10-F is a psychometrically sound French version of the SOS-10. This version is easy to administer and interpret for French clients. The results also support the equiva-

lency of the SOS-10-F paper-and-pencil version to an online version, suggesting the potential for greater use and ease of use.

The SOS-10-F allows counsellors who are working with French-speaking clients to quickly assess the effectiveness of counselling at various times in the counselling process. Responses at the item level can be examined to determine if there are specific areas of concerns upon which the counsellors can focus. It can also be utilized at the beginning of counselling and again at the end to determine if meaningful progress was made. In this way, SOS-10-F treatment scores have the potential to inform treatment planning and determine the effectiveness of counselling interventions for French speaking clients.

Acknowledgement

This research project was approved by the University of Toledo's Human Subjects Research Review Committee.

References

- American Educational Research Association, American Psychological Association, & National Council on Measurement in Education. (1999). Standards for educational and psychological testing. Washington, DC: American Psychological Association.
- Barkham, M., Evans, C., Margison, F., Mcgrath, G., Mellor-Clark, J., Milne, D., et al. (1998). The rationale for developing and implementing core outcome batteries for routine use in service settings and psychotherapy outcome research. *Journal of Mental Health*, 70(1), 35–47.
- Blais, M. A., Lenderking, W. R., Baer, L., deLorell, A., Peets, K., Leahy, L., et al.(1999). Development and initial validation of a brief mental health outcome measure. *Journal of Personality Assessment, 73*, 359–373.
- Butcher, J. N., Dahlstrom, W. G., Graham, J. R., Tellegen, A., & Kaemmer, B. (1989). *Manual for administration and scoring: MMPI-2*. Minneapolis, MN: University of Minnesota Press.
- Canada Online. (2004). Statistics on languages in Canada. Retrieved September 2, 2004, from http://canadaonline.about.com/cs/statisticsa/staslang.htm.
- Cohen, J. (1992). A power primer. Psychological Bulletin, 112, 155-159.
- Derogatis, L. R. (1983). SCL-90-R: Administration, scoring and procedures manual II. Baltimore: Clinical Psychometrics Research.
- English-French Bilingualism. (2004). *The atlas of Canada*. Retrieved September 2, 2004, from http://atlas.gc.ca/site/english/maps/peopleandsociety/officiallanguages/englishfrenchbilingualism/1.
- Ethnologue.com. (2005). French: A language of France. Retrieved January 17, 2005, from http://www.ethnologue.com/show%5Flanguage.asp%3Fcode=FRN.
- Granello, D. H., & Wheaton, J. E. (2004). Online data collection: Strategies for research. *Journal of Counseling & Development*, 82, 387–393.
- Hilsenroth, M., Ackerman, S., & Blagys, M. (2001). Evaluating the phase model of change during short-term psychodynamic psychotherapy. *Psychotherapy Research*, 11(1), 29–47.
- Joint Commission on Accreditation of Healthcare Organizations. (1997). ORYX outcomes: The next evolution in accreditation: Performance measurement systems: Evaluation and selection. Oakbrook, IL: Author.
- Laux, J. M., & Ahern, B. (2003). Concurrent validity of the Schwartz Outcome Scale (SOS-10) with a chemically dependent population. *Journal of Addictions and Offender Counseling*, 24(1), 2–10.
- Lazar, J., & Preece, J. (1999). Designing and implementing Web-based surveys. *Journal of Computer Information Systems*, 39, 63–67.

Lee, W., Jones, L., Goodman, R., & Heyman, I. (2005). Broad outcome measures may underestimate effectiveness: An instrument comparison study. Child and Adolescent Mental Health, 10, 143–144.

- Lumsden, J. A., Sampson, J. P., Jr., Reardon, R. C., Lenz, J. G., & Peterson, G. W. (2004). A comparison study of the paper-and-pencil, personal computer, and Internet versions of Holland's Self-Directed Search. *Measurement and Evaluation in Counseling and Development*, 37, 85–94.
- Miller, S. D., Duncan, B. L., & Hubble, M. A. (2005). Outcome-informed clinical work. In J. C. Norcross (Ed.), *Handbook of psychotherapy integration* (2nd ed., pp. 94–102). London: Oxford University Press.
- Newman, I., Fraas, J., & Laux, J. M. (2000). Adjusting the alpha levels of multiple statistical tests: Using a three-step approach. *Journal of Research in Education*, 10, 84–90.
- Nunnally, J. (1978). Psychometric theory (2nd ed.). New York: McGraw-Hill.
- Nunnally, J., & Bernstein, I. (1994). Psychometric theory (3rd ed.). New York: McGraw-Hill.
- Overall, J. E., & Gorham, D. R. (1962). The brief psychiatric rating scale. *Psychological Assessment*, 5, 799–812.
- Rivas-Vazquez, R. A., Rivas-Vazquez, A., Blais, M., Rey, G. J., Rivas-Vazquez, F., Jacobo, M., et al. (2001). Development of a Spanish version of the Schwartz Outcome Scale-10: A brief mental health outcome measure. *Journal of Personality Assessment, 77*, 436–446.
- Sexton, T. L. (1996). The relevance of counseling outcome research: Current trends and practical implications. *Journal of Counseling and Development*, 74, 590–600.
- Shryock, R. (2006). Why study French? Retrieved May 27, 2006, from http://www.fll.vt.edu/french/whyfrench.html.
- Wall, J. E., Baker, H., & Sampson, J. P. (2004). Editorial comments for the special issue on the use of technology in assessment. *Measurement and Evaluation in Counseling and Development*, 37, 66–69.
- Weiss, D. J. (2004). Computerized adaptive testing for effective and efficient measurement in counseling and education. *Measurement and Evaluation in Counseling and Development*, 37, 70–84.
- Young, J. L., Waehler, C. A., Laux, J. M., McDaniel, P. S., & Hilsenroth, M. J. (2003). Four studies extending the utility of the Schwartz Outcome Scale (SOS-10). *Journal of Personality* Assessment, 80, 130–138.

Appendix A

Schwartz Outcome Scale-10-Online French (SOS-10-FO)

Instructions : Vous allez lire 10 déclarations à propos de vous et de votre vie qui nous permettront de mieux comprendre votre opinion sur votre état d'esprit actuel. S'il vous plaît, répondez à chaque déclaration en choisissant le numéro de la réponse qui correspond le mieux à votre état d'esprit (en général) pendant les sept derniers jours (une semaine). Il n'y a ni bonnes ni mauvaises réponses et il est important que vos réponses représentent vos vrais sentiments. Souvent la première réponse est la meilleure. Merci pour vos efforts de réflexion. S'il vous plaît, soyez certain(e) de répondre à chaque déclaration.

Jamai	is	2	3	4)	tout le temps ou presque tout le temps
	uffisam ortants. 1	ment d		ance en		ême pour pouvoir entretenir mes rapports humains
Jamai	is					tout le temps ou presque tout le temps

1. Etant donné mon état physique, je suis satisfait(e) de ce que je peux faire (accomplir).

3. Je me	sens op	timiste	envers i	non ave	enir.	
0	1	2	3	4	5	6
Jamais						tout le temps ou presque tout le temps
-					7	e la trouve passionnante).
0	1	2	3	4	5	6
Jamais						tout le temps ou presque tout le temps
5. Je suis	capable	e de m'a	muser.			
0	1	2	3	4	5	6
Jamais						tout le temps ou presque tout le temps
6. Je suis	général	lement :	satisfait	(e) de n	non éta	t de santé psychologique.
0	1	2	3	4	5	6
Jamais						tout le temps ou presque tout le temps
7. Je suis	capable	e de par	donner	mes dé	fauts.	
0	1	2	3	4	5	6
Jamais						tout le temps ou presque tout le temps
8. Ma vie	se dére	oule selo	on mes	attentes	i .	
0	1	2	3	4	5	6
Jamais						tout le temps ou presque tout le temps
9. Je peu	x me dé	brouille	er dans	les conf	lits ave	c les autres.
0	1	2	3	4	5	6
Jamais						tout le temps ou presque tout le temps
10. J'ai l'es	sprit tra	ınquille				
0	1	2	3	4	5	6
Jamais						tout le temps ou presque tout le temps

© 1998 The General Hospital Corporation doing business as Massachusetts General Hospital.

About the Authors

John M. Laux, Ph.D., is a Licensed Professional Clinical Counsellor (with supervisory endorsement), and a Licensed Independent Chemical Dependency Counsellor. He is an Assistant Professor in the Department of Counselor Education and School Psychology at the University of Toledo.

Jennifer L. Young, Ph.D., is a licensed psychologist in Madison, Wisconsin. She runs her own private practice and works full-time as a staff psychologist at Counseling & Consultation Services at the University of Wisconsin-Madison. Her clinical and research interests include feminist therapy and women's issues, LGBT issues, assessment, and EMDR.

Laura P. McLaughlin has an M.A. in counselling from the University of Toledo and is an Ohio Licensed School Counsellor. She is currently a doctoral student in Counselor Education and Supervision at the University of Toledo.

Dilani Perera-Diltz is an assistant professor at Cleveland State University. She received her M.A. in counselling from Bowling Green State University and a Ph.D. in Counselor Education and Supervision from the University of Toledo. She is a Professional Clinical Counsellor (PCC) and a Licensed Independent Chemical Dependency Counsellor.

Address correspondence to John Laux, The University of Toledo, MS 119, 2801 W. Bancroft Street, Toledo, OH 43606, USA, email <john.laux@utoledo.edu>.