Outcomes of social work education:

The case for social work self-efficacy

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Abstract

Has social work education been effective at promoting the development of specific practice skills and how can students' skill levels feasibly be assessed? This paper describes the development and testing of the Social Work Self-Efficacy Scale, which assesses social workers' confidence regarding a broad range of social work tasks. Pre-post data from two cohorts of social work students are presented showing significant positive change in MSW students' self-efficacy, suggesting a new approach to outcomes assessment in social work education.

Introduction

Has social work education been effective at promoting the development of specific practice skills? The usual methods of outcome assessment – licensing examination results, alumni and student surveys, and within program student performance measures such as grades received and rates of program completion – all have well-known drawbacks. This paper describes a new measure, the Social Work Self-Efficacy scale, designed to assess a key aspect of student performance and shows how it can demonstrate positive change in MSW students from program entry to the point of graduation.

Background

Competence has been a key concept in the literature on the education of adults and is central to many theories of human behavior. Social Cognitive Theory (SCT; Bandura, 1977; 1982; 1986; 1995; 1997a) is an example in this general area of theory (Maddux, 1995). SCT emphasizes the construct of self-efficacy:

> Among the mechanisms of agency, none is more pervasive than beliefs of personal efficacy. Unless people believe they can produce desired effects by their actions, they have little incentive to act. . . . People guide their lives by their beliefs of personal efficacy. *Perceived self-efficacy refers to beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments. . . .* People's beliefs in their efficacy have diverse effects. Such beliefs influence the courses of action people choose to pursue, how much effort they put forth in given endeavors, how long they will persevere in the face of obstacles and

> failures, their resilience to adversity, whether their thought patterns are self-hindering or self-aiding, how much stress and depression they experience in coping with taxing environmental demands, and the level of accomplishments they realize (Bandura, 1997a, p. 2-3).

Self-efficacy is a particular kind of assessment, and, as such, is related to self-awareness, which has been a long-standing goal of social work education. Self-efficacy is more than a self-perception of competency. It is an individual's assessment of their confidence in their ability execute specific skills in a particular set of circumstances and thereby achieve a successful outcome (Bandura, 1986). Self-efficacy has been shown to be predictive of future behaviors (e.g., Ewart, 1995; Holden, Moncher, Schinke & Barker, 1990; Holden, 1991, O'Leary, 1985; Zimmerman, 1995). Holden's (1991) meta-analysis examined the relationship between self-efficacy ratings and subsequent health related performance attainments (n = 56 studies, published 1981-89) and found an overall effect size of r = .26 (most conservative computational method). Research on self-efficacy is not restricted to health related behaviors. In terms of career related self-efficacy, Hackett notes that:

> [t]here are a number of conclusions that can be confidently drawn from the literature on the career self-efficacy of youth. Overall, it appears that career self-efficacy is strongly predictive of a wide range of career-related behaviors from early high school through college and beyond (1995, p. 247, c.f., Hackett & Betz, 1995).

The construct is also appearing regularly in the social work literature although it has not yet been widely used to assess the outcomes of social work education itself (e.g., Alter, 1996; Barber & Crisp, 1995; Dorfman, Holmes & Berlin, 1996; El-Bassel, et al., 1995, Evans, 1992; Frans, 1993; Furstenberg & Rounds, 1995; Gutierrez, 1990, Icard, Schilling & El-Bassel, 1995; Jackson, 2000; Levy & Bavendam, 1995; Mancoske, Standifer & Cauley, 1994; Montcalm, 1999; O'Connor & Korr, 1996; Parsons, East & Boesen, 1994; Richan, 1994; Rose, 1994; Rounds, Galinsky & Despard, 1995, Roffman, et al., 1997; Shera, 1994). However, self-efficacy has been used in higher education in the assessment of specific skill development with rehabilitation (e.g., Bieschke, Bishop & Herbert, 1995) family nursing and family medicine (Laschinger, McWilliam & Weston, 1999), and counseling psychology (Bishop & Bieschke, 1998).

Related Investigations and Measures

Self-efficacy regarding social work educational requirements and job duties was assessed in Betz and Hackett's (1981) measurement package. Yet, because the purpose of that study was to contrast female and male perceptions of self-efficacy in relation to 20 traditional and non-traditional careers for women, an in depth assessment of self-efficacy regarding specific professional tasks did not occur.

Our group has used self-efficacy as an outcome in a number of evaluations of social work education. The first set of studies used the Hospital Social Work Self-Efficacy (HSWSE) scale, which assesses social workers' confidence in their ability to perform 39 specific hospital social work tasks. Evidence that the HSWSE produces reliable and valid data has been obtained (blind review - references to be added).

Subsequent studies used the Research Self-Efficacy Scale (RSE), a nine-item scale designed to assess social workers' confidence in their ability to complete specific research activities (blind review - references to be added). Evidence supporting the notion that the RSE produces reliable and valid data was found as well. Both the HSWSE and the RSE have demonstrated sensitivity to change - the HSWSE over the course of one year of field work and the RSE over the course of a single semester research courses. The RSE is best suited for assessing change in the Foundation research methods course. It is currently undergoing revisions as we go through our self-study. Another scale, the ESE (Evaluation Self-Efficacy), has been created to assess change in our Advanced Concentration research methods course.

Given that none of these measures were the best suited for our purpose of assessing self-efficacy regarding social work practice more generally and since no other relevant established measures were found, we have developed the Social Work Self-Efficacy Scale (SWSE) to assess social workers' confidence regarding a broad range of social work tasks. The SWSE addresses professional practice in general, in contrast to the HSWSE, which focuses on a particular practice setting.

Method

Measures

Development of the SWSE. The SWSE is a 52-item scale derived from two sources. The first source was chairpersons of the five curricular areas (clinical, HBSE, field, policy and research) at the [redacted] School of Social Work (ESSW). These five chairpersons generated lists of important skills that students

are expected to obtain in their area. These skills were then converted into behavioral performances for specific self-efficacy items for the ESSW subscale.

The second source of items for the SWSE was the Practice Skills Inventory (PSI, O'Hare & Collins, 1997). The PSI was designed to assess the frequency with which different practice skills are employed. Based on a review of the relevant psychotherapy and social work practice literature, O'Hare and Collins developed items for the PSI in three broad conceptual areas: psychotherapeutic, case management and evaluation. This resulted in an initial pool of 97 items. A review by three additional, experienced practitioners reduced the number of items to 75. Based on a factor analysis of data from 337 MSW students, this item pool was reduced to 33 items comprising four factors, which they termed: therapeutic, case management, supportive and treatment planning/evaluation. Working on the rationale that the PSI constitutes an independently derived set of important practice tasks, we converted PSI items into the self-efficacy items that form the SWSE-PSI subscale.

The SWSE, which is provided in Table 1, is the combination of these two sets of items: (items 1-19 from the ESSW faculty; items 20-52 from the PSI). It was created following Bandura's guidelines for the creation of self-efficacy scales (Bandura, 1997b). It was pretested for timing and comprehension and reviewed by a social science methodologist not otherwise involved with the project. On the SWSE, respondents indicate how confident they are *today* in their ability *to successfully perform each task*. Their level of confidence is rated on an eleven point scale (0 = cannot do at all; 50 = moderately certain can do; 100 = certain can do). Respondents are told to consider

'successfully' as meaning that they would be able to perform the specific task in a manner that an experienced supervisor would think was excellent.

The SWSE takes approximately 15 minutes to complete. The SWSE's readability estimate is Flesch-Kincaid Grade Level: 9.9. Ley and Florio (1996), based on their review of prior research, advise that measures should be written at a grade level at least four years lower than the number of years of education (all respondents in this study have a minimum of 16 years of education).

To examine the construct validity of the SWSE, it was compared with a scale measuring empowerment, which is considered common to a wide range of social work practice models. Frans' (1993) 34 item Social Work Empowerment scale (SWE) was developed "to measure social workers' perceptions of personal and professional power" (p. 312). The SWE was developed in three studies using social work students and practitioners (n_1=24; n_2=62, n_3= 520). Frans reported Cronbach's alphas for the total SWE scale of .88 and .89 (from the second and third study). Evidence of construct validity was also provided (correlation between the SWE and the Torres empowerment index of .53). The SWE's readability estimate is Flesch-Kincaid Grade Level: 6.5.

In a pilot study during the 1997-98 academic year, the SWSE and the RSE were examined in relation to SWE. In terms of reliability the Cronbach's alphas for the SWSE total scale and subscales ranged from .86 to .97. As expected, a large positive correlation between the SWSE and the SWE was observed (r = .58) providing preliminary evidence supporting the construct validity of the SWSE.

Participants

The first cohort in the current study consisted of 173 entering students at pretest and 322 students at posttest when they were graduating in the Spring of 1999. The second cohort in the current study consisted of 220 students at pretest and 328 students at posttest when they were graduating in the Spring of 2000. Part of the reason for lower percentage supplying pretests was that we were attempting to do a group administration during orientation, and large numbers of enrolled students did not attend orientation (some chose not to and others entered the program at later points in time). Given these results, we have moved in subsequent studies to an alternative pretest method that should increase the proportion of students completing the pretest.

Procedure

This was a pretest-posttest design for a subset of students. It was a type of posttest only design for all others who were present for the posttest only. Given the professional training environment and multiple measurement occasions (pretest and posttest), maintaining anonymity was not an insignificant problem (c.f., Paulhus, 1991). However, doing so was considered essential for ethical reasons as well as to reduce the pressure for socially desirable responses. An identification approach developed during previous studies was used. Each participant created a personal identification number known only to them according to a predetermined format, and then used this same number throughout the study. This allowed the tracking of an individual's responses across multiple measurement occasions without the investigators ever knowing which

participant is using a specific identification number. Demographic variables were deliberately not collected to assure students that their responses were anonymous, although this eliminated our ability to examine within-group differences based on demographic characteristics or the specific course of study in which students were involved.

Response shift bias. This bias may occur when one uses self-report measures in a pretest - posttest intervention study. If individuals change their understanding of the construct being measured over the course of the study, then response shift has occurred. For instance, students might begin graduate social work education with a moderate level of confidence in their ability to work with mentally ill clients. They gain skills and confidence during their course of study, yet their experiences with these mentally ill clients and the relevant course work leads them to better understand how difficult such work really is. When asked at the end of the program how confident they are in their ability to work with mentally ill clients, they again answer 'moderately confident'. In such an instance, response shift bias masks the positive effects of their education (c.f., Riley & Greene, 1993; Robinson & Doueck, 1994; Sprangers, 1988).

One solution that has been suggested for this problem is the use of a retrospective pretest-posttest design, the distinctive feature of which is the 'Then' test or retrospective pretest (e.g., Howard, et al., 1979, c.f., Howard & Dailey, 1979; Howard, Dailey & Gulanick, 1979; Howard, Schmeck & Bray, 1979; Terborg, Howard & Maxwell,1980). At posttest participants answer a series of questions regarding the focus of the intervention. Each item is answered first according to their perception of

themselves now and then according their current perception of themselves at pretest ['Then']. In the current study the instructions given to the respondents are:

> **There are two rows of numbers for each practice item.** In the first row where the practice task is written in, please circle the number that best describes how confident you feel in your ability to successfully complete that task **NOW**. Next, for the second (shaded) row, think back to when you started at ESSW and circle the number that best describes **how confident you would have been *THEN* if you knew what you know now about that task. In other words if, you had the level of skill that you had then, but the understanding of the task that you now have, how confident would you have been in your ability to successfully perform the task.**

Using this retrospective pretest allows us to assess whether or not response shift bias potentially had an impact on our findings. Our group has found evidence of response shift bias in previous studies of the outcomes of social work education (blind review - references to be added).

Results

Levels of Self-Efficacy at Pretest

Findings by item. Table 1 provides the 52 items, the mean level of self-efficacy (and standard deviations) at pretest for each item for the classes of 1999 and 2000, and the amount of change between pretest and posttest. While the two cohorts were largely similar in their responses to the items, there was substantial within group variability in students' self-efficacy regarding professional social work tasks. Mean scores on items

range from 49.3 to 84.9, and from 48.8 to 82.6, for the classes of 1999 and 2000 respectively. At the beginning of the program, students in the class of 1999 were *most confident* about their abilities to:

- employ empathy to help clients feel that they can trust you
- provide emotional support for clients
- point out client successes to increase their self-confidence

Conversely, students in the class of 1999 were *least confident* in their abilities to:

- analyze a critical piece of welfare legislation
- evaluate their own practice using an appropriate research method
- participate in using research methods to address problems encountered in practice and agency based settings.

Similarly, at the beginning of the program, students in the class of 2000 were *most confident* about their abilities to

- employ empathy to help clients feel that they can trust you
- provide emotional support for clients
- help clients feel like they want to open up to you

The class of 2000 was the least confident regarding the same three practice tasks as the class of 1999.

Insert Table 1 about here

Findings by SWSE total and subscale scores. Table 2 presents the SWSE total and subscale scores for the Class of 1999 and Class of 2000 pretests. The average level of

confidence across all 52 items was 68.1 for the class of 1999 pretest. In terms of the items derived from the suggestions provided by ESSW Area Chairpersons students were less confident (mean = 64.4) than they were regarding the items derived from O'Hare and Collins (mean = 70.7). O'Hare and Collins derived four subscales for their Problem Solving Inventory. If we used the same subscales for the SWSE, we would observe the results in Table 2. The estimates of reliability are all quite high (Cronbach's alphas > = .93).

It can also be seen in Table 2 that the average level of confidence across all 52 items was 66.4 for the class of 2000 pretest. Students were again less confident (mean = 63.4) about the ESSW items than they were regarding the O'Hare and Collins' items (mean = 68.0). The estimates of reliability are again all high (Cronbach's alphas > = .94).

Insert Table 2 about here

Changes in Self-Efficacy Over Time

Changes in self-efficacy over the course of the program are detailed in Tables 3 and 4. As can be seen in Table 3, the smaller group for which we had pretest and posttest data (first three columns titled Pretest Mean, Posttest Mean and Thentest Mean) experienced statistically significant increases in social work self-efficacy during their education at ESSW. In addition, we can see (Thentest Mean column) that response shift bias may have been operating in this study, in that that the retrospective pretest ratings (the Thentest) were significantly less than the actual pretest ratings. For the larger group that we only had posttest data from, the Thentest - Posttest changes are all statistically significant. Because of the large number of comparisons (n = 28) in each of these tables, a Bonferroni adjustment (Cliff, 1987) was used. This meant that to maintain an overall alpha level of .05 for each set of analyses of differences, each comparison was done using alpha of .00178.

Insert Table 3 about here

Similarly, in Table 4 the smaller group with complete pretest and posttest data experienced statistically significant increases in social work self-efficacy during their program. Response shift bias may again have been operating, given that six of the seven Pretest – Thentest comparisons were statistically significant. The Thentest - Posttest comparisons for the larger group were all statistically significant.

These findings can be taken to mean that there was consistent evidence of improvement in students' ratings of self-efficacy in all of the domains of social work

examined. What was the size of this effect? The amount of pre-post change for the total SWSE and all of the subscales was converted to the effect size – U_3 shown in Tables 3 and 4 (Cohen, 1988; Gorey, 1996; Gorey, Thyer & Pawluck,1998; Grenier & Gorey, 1998). U_3 can range in value from 0-100. It represents the percentage of scores on the pretest that are exceeded by the median score on the posttest. If $U_3 = 50$ there would have been no pre-post change. U_3's below 50 represent negative change. The closer U_3 is to 100, the greater the amount of positive change, and a U_3 equal to 100 would mean that the median at posttest exceeded all of the pretest scores. One way to think about these results is to relate the size of these effects to the effect sizes produced by other interventions. Lipsey and Wilson (1993) performed a meta-analysis of 302 meta-analyses of studies of psychological, educational and behavioral interventions. The average effect size (converted to U_3) for the 302 meta-analyses covered by Lipsey and Wilson was 69.1. The more conservative and appropriate comparison is to the average effect size of 76.5 for the subset of studies in the Lipsey and Wilson study that were one-group, pretest-posttest studies (the design used in our educational evaluations). Twelve of the fourteen U_3's presented here exceed the average U_3 for one-group, pretest-posttest studies in the Lipsey and Wilson meta-analysis.

Insert Table 4 about here

Discussion

This outcome study and direct replication lead us to tentatively conclude that students enter ESSW slightly more than moderately confident in their ability to

successfully engage in social work practice. There is substantial variability in self-efficacy across the range of specific practice tasks mentioned. The SWSE and its subscales appear to be internally reliable. The SWSE appears to be sensitive to change in that students experience statistically significant increases in self-efficacy as they move through the program. It appears that response shift bias might have been operating in these studies, because then test ratings were typically significantly lower than the actual pretest ratings. These findings were obtained in both the initial study and the first replication. Finally, the effect sizes observed in the initial study and the replication usually exceed the effect sizes for similar studies of psychological, educational and behavioral interventions that have appeared in the literature.

A number of caveats apply to the generalizability of these findings. These results are based on self-report data, from relatively small, non-random samples of social work students. In addition, the study was carried out in a single school, in a unique city, by a single group of investigators. Further, the results were obtained with a scale that has been subjected to limited psychometric evaluation. While O'Hare and Collins developed the PSI based on the work of some important figures in clinical theory and research, other scale developers might have chosen other items, especially if the intent of a scale was to assess a more circumscribed area of practice. Based on past experience with developing such scales, we are led to the tentative conclusion that the SWSE will prove psychometrically sound, yet to date we have only limited data to support that conclusion.

In addition these are combined single group, pretest-posttest and posttest only studies that are capable of answering the evaluative question (*Did change occur during the intervention?*) but not the experimental question (*Did the intervention cause the change?*) (Royce, Thyer, Padgett & Logan, 2000). Even the answer to the evaluative question is tentative. Attrition over the course of the study is a potential threat to internal validity. For the class of 1999 we obtained measures at both points in time for 109 out of the 173 who took the pretest (63%). For the class of 2000 we obtained measures at both points in time for 106 out of the 220 who took the pretest (48%). This was likely due to a variety of reasons: absence on the day of the posttest; refusal to participate; or failure to recognize their ID number. These are unacceptably high levels of attrition in our view and we have implemented a number of design changes that should enhance retention in future studies. However, those completing both the pre and posttest could be systematically different in some way from those who did not complete measures at both occasions. For example, this approach may have result in overrepresentation of full time versus part-time students. As these were designed to be anonymous surveys for both ethical and methodological reasons, we have no demographic characteristics with which to explore this question.

One additional concern raised by a reviewer of this article is the possible impact of grade inflation on self-efficacy. One would theoretically assume that prior grades and therefore grade inflation (this assumes grade inflation is not uniform – e.g. it is greater at the bottom of the grade range) would impact on self-efficacy. A literature search on self-efficacy and grade inflation did not produce any articles that directly addressed this

issue, but we did uncover some related findings. Zimmerman (1995) reports the results of a path analysis from an earlier study where he and his colleagues found that student's prior grades were not significantly related to students' self efficacy for self-regulated learning or self-efficacy for academic achievement, although self-efficacy was directly and indirectly related to students' final grades. While beyond the scope of this article, the role of grade inflation on self-efficacy in academic settings may be worthy of further investigation.

Are these students too confident in their abilities when they enter the program? There are two aspects of Social Cognitive Theory and two methodological issues that are pertinent to this question. First, Social Cognitive Theory posits a relationship between self-efficacy and occupational interests, where those low in self-efficacy regarding a particular occupation will avoid it (Bandura, 1997a). Conversely those entering a profession will be those who tend to be more confident in their abilities related to that profession. Second, as Bandura notes:

> When people err in their self-appraisal they tend to overestimate their capabilities . . . . This is a benefit rather than a cognitive failing or character flaw to be eradicated. If efficacy beliefs always reflected only what people could do, routinely they would remain steadfastly wedded to an overly conservative judgment of their capabilities that begets habitual performances. Under cautious self-appraisal, people rarely set aspirations beyond their immediate reach nor mount the extra effort needed to surpass their ordinary performances. . . . Social reformers strongly believe that they can mobilize the collective effort needed to

> bring social change. Although their beliefs are rarely fully realized they sustain reform efforts that achieve important gains. Were social reformers to be entirely realistic about the prospects of transforming social systems they would either forego the endeavor or fall easy victim to discouragement. Realists may adapt well to existing realities. But those with a tenacious self-efficacy are likely to change those realities (1995, p. 12-3).

Given that self-efficacy does predict career interests, occupational consideration and career choice (e.g., Hackett, 1995), one would expect those enrolling in a social work program to have confidence in doing the work that they have chosen.

In terms of methodological explanations, the high initial self-efficacy levels may be due in part to beginning students' lack of understanding of the complexity and difficulty of the professional tasks they will be engaging in. This conclusion is supported by the observations of significant Thentest – Pretest comparisons. That is, when students rated how confident they should have been at Pretest during the Posttest (the Thentest rating), their ratings were consistently lower than their original Pretest ratings (note that their Pretest ratings were not available to them when they did the Thentest ratings). Our interpretation is that response shift bias may have occurred here – as students moved through the program they became both more self-aware and they became more aware of the difficulty and complexity of social work practice. It is clear that when such biases are operating, researchers will be less likely to find significant pre—post differences. The interesting question is: *In how many studies using self-report measures that found social work*

interventions ineffective was response shift bias a factor? Perhaps practitioners are more effective than we researchers think.

Finally, our focus on creating a measurement situation where anonymity was assured and the press for socially desirable responding reduced may have allowed some students to express higher levels of self-efficacy than they might have in public or in a non-anonymous testing situation. In other words – 'I am really confident that I could do that, but I wouldn't say that to someone at the beginning of my social work program.' Regardless, our use of the then-test provides additional data with which to consider this issue.

What are the implications of this work for social work education? While it has been argued that assessment of the outcomes of social work education should be based on the outcomes that the clients served by social work students achieve, we are not aware of any methods yet developed for assessing educational outcomes in this way that compare with student self-report techniques in efficiency and feasibility. Nor are we aware of other helping professions that have found systematic ways to do this. However, it is always essential to remember that while confidence in performance and performance outcome are correlated with each other, they are not the same thing. The relationship of the SWSE to skills demonstrated in the practice setting is an area we hope to explore as part of further validation of the present scale.

As noted above, this series of studies was seen as the first step in developing the SWSE. We are currently revising the content of the scale in line with developments in our program and in the profession. The straightforward nature of self-efficacy scale

development makes these measures ideal tools for social work education outcomes assessment. One needs to identify the broad domains (e.g. research, clinical), specify the key behaviors of interest, and then write the self-efficacy items. Such tailoring means that self-efficacy scales have the potential to serve both profession wide and program specific purposes.

Conclusion

The need for relevant outcome measures in social work is clear (e.g., Hull, Mather, Christopherson & Young , 1994). Social work education requires ongoing outcomes assessment for development and accreditation. There is a dearth of relevant outcome measures for these purposes that have demonstrable psychometric properties and the ease of use and flexibility to be employed regularly with large samples. Social work education needs a number of groups of investigators developing such measures so that social work educators will have greater choice when assessing their programs. Self-efficacy is a construct with a vast amount of theoretical and empirical support. It is also a construct consonant with social work values, social work educational traditions and a strengths perspective. If the psychometric properties of this scale continue to be supported, then the profession's choices for outcomes assessment will be enhanced.

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Table 1. Individual SWSE items and descriptive statistics for class of 1999 (n=173) at pretest) and class of 2000 (n=220) pretests.

How confident are you that you can.	**1999 Mean**	**SD**	**Pre-post Change[1]**	**2000 Mean**	**SD**	**Pre-post Change**
ESSW Items 1-19						
1. initiate and sustain empathic, culturally sensitive, non-judgmental, disciplined relationships with clients?	76.5	15.7	11.4	75.6	18.4	12.0
2. elicit and utilize knowledge about historical, cognitive, behavioral, affective, interpersonal, and socioeconomic data and the range of factors impacting upon client to develop biopsychosocial assessments and plans for intervention?	55.2	23.5	32.3	55.8	25.0	28.8
3. apply developmental, behavioral science and social theories in your work with individuals, groups and families?	56.9	22.9	25.4	57.6	23.3	23.1
4. understand the dialectic of internal conflict and social forces in a particular case?	61.0	20.9	23.0	60.6	23.6	22.5
5. intervene effectively with individuals?	70.4	18.5	15.7	69.5	20.4	16.0
6. intervene effectively with families?	60.8	22.2	15.0	62.5	23.2	13.3
7. intervene effectively with groups?	59.4	23.2	18.8	60.8	22.4	18.1
8. work with various systems to obtain services for clients (e.g., public assistance, housing, Medicaid, etc.)?	60.4	27.0	18.6	62.0	28.8	20.0
9. assume the social work role of change agent / advocate by identifying and working to realistically address gaps in services to clients?	60.6	24.7	18.5	60.5	25.5	19.5
10. function effectively as a member of a service team within the agency and service delivery system, consistently fulfilling organizational and client-related responsibilities?	71.1	21.6	16.0	71.4	22.1	16.6
11. maintain self-awareness in practice, recognizing your own personal values and biases, and preventing or resolving their intrusion into practice?	76.5	16.0	10.7	73.0	18.5	14.9
12. critically evaluate your own practice, seeking guidance appropriately and pursuing ongoing professional development?	77.6	17.4	10.4	75.1	17.8	15.0

Table 1 (Cont'd.)

How confident are you that you can.	**1999 Mean**	**SD**	**Pre-post Change[1]**	**2000 Mean**	**SD**	**Pre-post Change**
13. practice in accordance with the ethics and values of the profession?	84.1	16.5	7.3	80.6	18.5	11.6
14. analyze a critical piece of welfare legislation?	54.5	26.0	15.5	52.9	29.1	16.0
15. define the impact of a major social policy on vulnerable client populations (e.g., the Welfare Reform Act)?	55.6	24.7	18.8	55.0	28.9	23.0
16. use library and on-line resources to retrieve published articles and reports from the empirical research literature?	70.9	21.6	18.1	65.1	26.8	24.9
17. critically review and understand the scholarly literature?	69.5	20.5	17.0	66.8	21.8	19.3
18. evaluate your own practice using an appropriate research method (e.g., single system designs, brief measures such as scales, indexes, or checklists)?	49.3	27.4	22.5	48.8	27.7	28.3
19. participate in using research methods to address problems encountered in practice and agency based settings?	53.1	25.8	19.9	51.1	25.8	25.2
SWSE-PSI Items: Therapeutic Techniques 20-35						
20. teach clients skills to relieve their own stress?	67.8	20.2	13.8	66.0	23.2	17.9
21. educate clients about how to prevent certain problems from reoccurring?	66.4	20.2	15.4	66.2	23.0	17.4
22. help clients to reduce dysfunctional ways of thinking that contribute to their problems?	66.6	19.8	14.2	65.3	22.2	17.0
23. help clients to anticipate situations that can cause problems for them?	69.2	18.8	13.9	66.2	21.8	19.7
24. teach clients specific skills to deal with certain problems?	68.1	20.0	13.4	66.8	22.7	18.3
25. help clients to understand better how the consequences of their behavior affect their problems?	71.0	17.7	15.4	67.5	22.1	19.3
26. teach clients how to manage difficult feelings?	66.7	18.4	16.2	64.0	22.9	19.1
27. demonstrate to clients how to express their thoughts and feelings more effectively to others?	71.4	16.7	14.2	66.8	21.6	19.3

Table 1 (Cont'd.)

How confident are you that you can.	**1999 Mean**	**SD**	**Pre-post Change[1]**	**2000 Mean**	**SD**	**Pre-post Change**
28. help clients to practice their new problem-solving skills outside of treatment visits?	67.8	18.8	13.8	63.6	22.6	18.4
29. teach communication skills to clients?	70.0	17.3	12.6	66.5	21.6	16.5
30. teach clients how to manage their own problem behaviors?	66.0	18.7	14.8	62.6	22.4	17.1
31. show clients how to reward themselves for progress with a problem?	69.2	20.2	13.8	66.9	22.1	14.9
32. teach clients how to accomplish tasks more effectively?	67.5	18.9	15.0	65.9	21.9	15.5
33. coach clients in how to make decisions more effectively?	66.9	17.6	16.8	63.1	21.9	19.0
34. teach clients the skills for reducing unhealthful habits?	67.1	18.9	13.9	63.1	22.6	17.3
35. show them how to set limits for others' dysfunctional behavior?	63.6	19.9	18.9	62.0	22.6	19.5
SWSE-PSI Items: Case Management 36-42						
36. assess the level of their material resources?	62.9	22.2	21.2	61.4	25.0	21.2
37. monitor the delivery of services provided by several other providers?	61.9	23.0	17.7	61.0	25.9	19.5
38. advocate on others behalf?	71.0	21.3	16.8	69.2	24.0	21.2
39. make referrals to other services?	68.0	25.9	21.1	67.9	27.3	23.0
40. analyze social problems and policies relevant to the client's problems?	65.7	21.4	17.4	63.1	25.5	19.9
41. provide information about other services available to clients?	67.0	26.5	20.0	66.2	27.7	19.0
42. network with agencies to coordinate services?	65.1	26.2	19.5	66.0	27.3	19.9
SWSE-PSI Items: Supportive 43-48						
43. reflect thoughts and feelings to help clients feel understood?	78.3	16.9	12.9	76.4	19.6	14.6
44. employ empathy to help clients feel that they can trust you?	84.7	14.2	8.8	82.6	16.7	10.4

Table 1 (Cont'd.)

How confident are you that you can.	**1999 Mean**	**SD**	**Pre-post Change[1]**	**2000 Mean**	**SD**	**Pre-post Change**
45. provide emotional support for clients?	84.8	14.5	8.9	81.8	16.6	11.0
46. help clients feel like they want to open up to you?	83.1	14.8	8.7	81.1	17.3	9.6
47. employ the treatment relationship so clients can feel accepted for who they are?	78.8	17.4	11.3	76.3	20.4	14.5
48. point out their successes to increase their self-confidence?	84.9	14.5	6.7	80.0	18.9	12.8
SWSE-PSI Items: Treatment Planning / Evaluation 49-52						
49. define the client's problems in specific terms?	68.9	20.2	18.5	67.3	23.3	19.8
50. collaborate with clients in setting intervention goals?	68.4	20.8	18.5	66.6	22.5	21.0
51. define treatment objectives in specific terms?	64.8	21.5	21.5	62.4	25.7	24.0
52. ask clients to evaluate the effects of treatment on themselves?	70.2	21.2	14.7	66.9	23.8	20.6

[1] The pre-post change scores are based on the smaller subset of participants for whom both the pretest and the posttest were available.

Table 2. SWSE total and subscale descriptive pretest statistics for classes of 1999 (n=173) and 2000 (n=220).

		Class of 1999				Class of 2000			
Scales/ Subscales	SWSE Item #'s	Mean	95% CI	Min. – Max.	Reliability	Mean	95% CI	Min. – Max.	Reliability
SWSE [all items]	1-52	68.1	65.9-70.3	26.2-97.3	.98	66.4	64.1-68.7	24.0-99.6	.98
ESSW	1-19	64.4	62.2-66.6	24.2-96.3	.98	63.4	61.5-65.9	15.8-100	.94
SWSE-PSI[1]	20-52	70.7	67.7-72.4	22.7-99.4	.98	68.0	65.5-70.5	17.0-99.4	.98
Therapeutic Techniques	20-35	67.9	65.3-70.4	20.6-100	.98	65.2	62.5-68.1	5.6-100	.99
Case Management	36-42	65.8	62.7-69.0	11.4-100	.95	64.8	62.1-68.4	7.1-100	.96
Supportive	43-48	82.4	80.3-84.3	28.3-100	.93	79.7	77.4-81.8	11.7-100	.95
Treatment Planning / Evaluation	49-52	68.1	65.1-71.0	17.5-100	.94	66.0	62.9-68.9	0-100	.94

[1] O'Hare and Collins (1997) derived items.

Table 3. Class of 1999 SWSE total and subscale pre-post-thentest outcomes.

Scales/ Subscales	SWSE Item #'s	Pretest Mean	Posttest Mean	U_3[1]	Thentest Mean	Posttest Mean Full Post Sample	Thentest Mean Full Post Sample
SWSE [all items]	1-52	66.9	82.6[3]	88.8	54.5[4,5]	83.1	55.6[6]
ESSW	1-19	62.7	79.8[3]	90.1	50.5[4,5]	80.3	51.2[6]
SWSE-PSI[2]	20-52	69.3	84.2[3]	84.1	56.8[4,5]	84.7	58.1[6]
Therapeutic Techniques	20-35	67.2	81.7[3]	83.6	53.7[4,5]	82.8	55.3[6]
Case Management	36-42	64.6	83.2[3]	77.9	56.3[4,5]	83.7	58.1[6]
Supportive	43-48	82.1	91.5[3]	72.1	67.2[4,5]	91.1	67.9[6]
Treatment Planning / Evaluation	49-52	66.3	84.8[3]	78.1	54.1[4,5]	84.8	55.1[6]

Note. There is variation in n across comparisons due to missing data.

[1] The effect size representing the amount of pre-post change is U_3 (Cohen 1988).. U_3 can range in value from 0-100. It represents the percentage of scores on the pretest that are exceeded by the median score on the posttest.

[2] O'Hare and Collins (1997) derived items.

[3] Significant pretest vs. posttest comparison, $p < .00178$ (2 tailed), Wilcoxon signed rank test, n = 109

[4] Significant thentest vs. posttest comparison, $p < .00178$ (2 tailed), Wilcoxon signed rank test, n = 109

[5] Significant thentest vs. pretest comparison, $p < .00178$ (2 tailed), Wilcoxon signed rank test, n = 109

[6] Significant thentest vs. posttest comparison, $p < .00178$ (2 tailed), Wilcoxon signed ranks test, n = 322. The larger n here includes those who had usable data for the Posttest and Thentest only.

Table 4. Class of 2000 cohort SWSE total and subscale pre-post-thentest outcomes.

Scales/ Subscales	SWSE Item #'s	Pretest Mean	Posttest Mean	U_3[1]	Thentest Mean	Posttest Mean Full Post Sample	Thentest Mean Full Post Sample
SWSE [all items]	1-52	65.3	82.2[3]	83.3	54.4[4,5]	82.6	57.5[6]
ESSW	1-19	62.1	82.0[3]	85.2	50.8[4,5]	81.3	52.8[6]
SWSE-PSI[2]	20-52	66.6	84.5[3]	85.3	55.1[4,5]	85.6	59.3[6]
Therapeutic Techniques	20-35	63.6	81.8[3]	83.9	51.9[4,5]	83.4	55.6[6]
Case Management	36-42	63.6	84.4[3]	80.3	55.4[4]	85.0	60.1[6]
Supportive	43-48	79.5	91.7[3]	76.0	64.9[4,5]	91.8	68.9[6]
Treatment Planning / Evaluation	49-52	64.1	84.9[3]	81.6	50.4[4,5]	83.5	56.9[6]

Note. There is variation in n across comparisons due to missing data.

[1]The effect size representing the amount of pre-post change is U_3 (Cohen 1988).

[2] O'Hare and Collins (1997) derived items.

[3] Significant pretest vs. posttest comparison, $p < .00178$ (2 tailed), Wilcoxon signed rank test, n = 106

[4] Significant thentest vs. posttest comparison, $p < .00178$ (2 tailed), Wilcoxon signed rank test, n = 106

[5] Significant thentest vs. pretest comparison, $p < .00178$ (2 tailed), Wilcoxon signed rank test, n = 106. Obtained p for Case Management = .002.

[6] Significant thentest vs. posttest comparison, $p < .00178$ (2 tailed), Wilcoxon signed rank test, n = 325. The larger n here includes those who had usable data for the Posttest and Thentest only.