

Research Training, Institutional Support, and Self-Efficacy: Their Impact on Research Activity of Social Workers

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Abstract: *While the expectations for social work practitioners to do research have increased, their involvement is still limited. We know little about what factors influence involvement in research. The present study proposes a theoretical model that hypothesizes research training and institutional support for research as the exogenous variables, research self-efficacy as an intervening variable, and research activity as the endogenous variable. The study tests the model using data collected from a random sample of social workers. To a large degree the data support the model. Research self-efficacy has a significant effect on research activity. It is also an important mediating variable for the effect of institutional support on research activity. Although institutional support for research has no direct effect, it has an indirect effect via self-efficacy on research activity. However, research training has no effect on research activity and self-efficacy in research. The implications of these findings are discussed.*

Keywords: *Research self efficacy, research training, research activity*

INTRODUCTION

For some time, authors have expressed concern about the level of research activity among social workers (Cheetham, 1997; Rosen, 2003; Rosen, Proctor & Staudt, 1999; Shaw and Lishman, 1999; Thyer, 1991). For too long social workers have relied on treatment that is not research based (Rosen, 2003). We need to accumulate evidence about the effectiveness of social work interventions (Evidence-based interventions) and to be able to demonstrate the profession's contributions to solving the problems of individuals as well as larger social systems. With this increased emphasis on accountability and on measuring if treatment is effective, social work research is considered more important than ever (Cheetham, 1997).

Accountability in the consumer-social worker relationship also necessitates involvement in research. There is a fiduciary relationship between the consumer and the social worker which is based on the trust that the consumer places in the social worker to act in the consumer's best interest. It is difficult to show that the social worker is acting in the best interest of the consumer unless the social worker has evidence of the effectiveness of treatment, based on the social worker's own research or the research of others (Kutchins, 1998).

It is a fundamental responsibility of human and health service professionals to participate in advancing the knowledge base of their professions (Austin, 1999). The knowledge base of social work must continuously expand due to the nature of our role as

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change agents in a changing society. Old methods of intervening may not be adequate in our new culture, and new methods of intervening should be constantly developed through research activity. The profession has acknowledged a need to produce research on interventions to continue the development of a knowledge base for making clinical decisions with clients which in turn will produce more effective interventions leading to improved social work outcomes (Gellis & Reid, 2004).

There is a need to increase research by social workers and educators. The Task Force on Social Work Research (1991) indicated that only 900 individuals of 400,000 practitioners and 4,200 educators had published research results between 1985 and 1991. Gerdes, Edmonds, Haslam and McCartney (1996) found that only a small minority of MSW practitioners used empirical measures of treatment effectiveness. There are compelling reasons for social workers to research their interventions. It appears that social work organizations have been supportive of this research; however, the amount being performed by individual practitioners is quite limited.

The National Institutes of Health (NIH) (2005) have identified a need for social work intervention research and have provided funding for the research through a number of grants. This Program Announcement indicated NIH's belief concerning the importance of social work research:

As one of the largest allied health professions in the U.S., social work is a primary provider of psychosocial interventions and services intended to facilitate treatment of medical conditions, improve disease management and prevention, and address related social, psychological or emotional problems in order to improve health and functioning.... An empirical approach to understanding the mechanisms of action in social work practice, to improving the efficacy and effectiveness of social work interventions, and to disseminating and implementing exemplary practice approaches and methods can add a significant but understudied component to the portfolios of various NIH institutes and make a unique and important contribution to improving public health (National Institutes of Health, 2005).

The current study explores factors that influence research involvement in the social work profession. The major factors studied are research training, institutional support, and self-efficacy. Building upon previous studies regarding research training, institutional support and self efficacy, the purpose of this study is to assess how these factors influence social workers in their involvement in research activity by developing and testing a theoretical model

INFLUENTIAL FACTORS IN RESEARCH ACTIVITY

Several studies have addressed factors that may influence research activity (Gerdes et al., 1996; Fraser & Jensen, 1993; Holden, Barker, Meenaghan & Rosenberg, 1999; Kirk, 1999; Lindsey, 1999; Monette, Sullivan & DeJong, 1998; Proctor, 1990; Rubin & Babbie, 2001). Some concentrated on research training (Fraser & Jensen, 1993; Kirk, 1999; Lindsey, 1999; Proctor, 1990), and others examined the role of institutional support and self-efficacy (Gerdes et al., 1996; Fraser & Jensen, 1993; Holden et al., 1999). All

the studies have documented the factors individually. No study has made a systematic assessment of how these factors interrelate in their effects on research activity. The present study utilizes the findings from these studies and develops a model that addresses how the factors affect research activity.

Research Training

Some educators suggest that the best way to increase knowledge about evaluating practice is to teach students to integrate rigorous research in their social work practice (Fraser & Jensen, 1993; Kirk, 1999; Lindsey, 1999; Lyons, 2000; Proctor, 1990). Others found that social workers do not believe that they have sufficient training to effectively use research methods (Dunlap, 1993; Epstein, 1987; Wodarski, 1986). Training appears to be an important factor according to many researchers.

Reid (1993) reported that CSWE has been successful in the past in promoting research education in the social work curricula. In 1982 the Council on Social Work Education mandated that MSW and BSW programs include education to show students how to do systematic evaluation of their practice. Students must learn to answer the question "What is the point to what I'm doing?" (Cheetham, 1992, p. 268). The Council on Social Work Education's *Handbook on Accreditation Standards and Procedures* (2003) specifically indicated three areas of research training for MSW students: "1.) Content on qualitative and quantitative methodologies to build practice knowledge; 2.) Preparation to develop, use and communicate empirically based knowledge including evidence-based interventions and; 3.) Research knowledge to provide high-quality services; to initiate change; improve practice policy and service delivery; and to evaluate one's own practice" (p. 104).

However, problems in research training of MSW students have been observed. Rosen (1996) noted that one of the obstacles to performing practice research is found in MSW training. He identified three concerns: 1) selective use of examples and applications, 2) unclear criteria for use of different designs, and 3) failure to encompass practice complexity (p. 106).

Lyons (2000) argued for the development of research material in social work education. She suggested the need to "promote methods and approaches compatible with the overall goals of social work" and use of interactive forms of research where people are participants in the research process (Lyons, 2000, p. 441). She indicated a number of factors that influence an institution's level and quality of the research enterprise related to social work, including the value placed on research, incentives and resources available to undertake research, credibility accorded certain types of research and the different career patterns of social work educators. She stated that "research must be an essential component of social work education and professional activity" (Lyons, 2000, p. 446).

Proctor and Rosen (2008) discussed the need for social workers to do more research, its applicability to the profession, and how research can help guide social worker's practice. They also identified challenges that social workers face such as the inability to use research due to the lack of preparation, their attitudes about research, and lack of

awareness of relevant literature. They also indicated that some social workers have difficulty using research effectively due to training issues.

Unrau and Grinnell (2005) examined research self-efficacy of undergraduate and graduate social work students. Their finding indicated that students have a wide range of confidence in doing research both at the beginning and after completing a research course. They discussed a positive research training experience by social work instructors as being essential in the training of social workers.

Institutional Support for Research Activity

Support in the work environment is also related to research activity by social workers. Rubin and Babbie (2001) indicated that getting approval to conduct a research project from a number of different sources, such as agency administrators, human subject review committees, and other practitioners, may take time and be frustrating. Since some studies may take much time, it may be difficult to justify them to agency superiors. It may also be difficult to persuade peers to assume the workload for the practitioner who is doing research. These problems would affect the support that the practitioner feels for doing research.

Monette et al. (1998) described some additional costs of research that may be incurred, including salaries of staff conducting research, transportation and living expenses, computer expenses, office supplies and equipment, dissemination of research findings, and incentives paid to ensure cooperation. Many agencies simply cannot afford to support research. Gerdes et al. (1996) reviewed several aspects of the work environment in determining their effects on research activity in a survey of social workers in Utah. They found that work environment factors such as support by peers and administrators, time allotted, and cost impacted research activity.

Research Self-Efficacy

Self-efficacy, a construct from social cognitive theory, involves “people’s judgment of their capabilities to organize and execute courses of action required to attain designated types of performances” (Bandura, 1986, p. 391). Competent functioning is based on both having skills and believing that one can use the skills correctly, or possessing self-efficacy regarding the skill set. According to Bandura, “Self-efficacy not only reduces anticipatory fears and inhibitions but, through expectations of eventual success, it affects coping efforts once initiated.... The stronger the efficacy or mastery expectations, the more active the efforts” (1977, p. 80). Holden et al. (1999) conceptualized “social work self-efficacy” as an individual’s confidence in her/his ability to carry out a wide variety of professional tasks. Research self-efficacy was considered a subcomponent of social work self-efficacy. They attempted to determine if MSW training led to research self-efficacy which, in turn, would lead to social work empowerment, (i.e., feelings of confidence in performing treatment tasks, confidence in measuring treatment results, and enhanced use of research in practice).

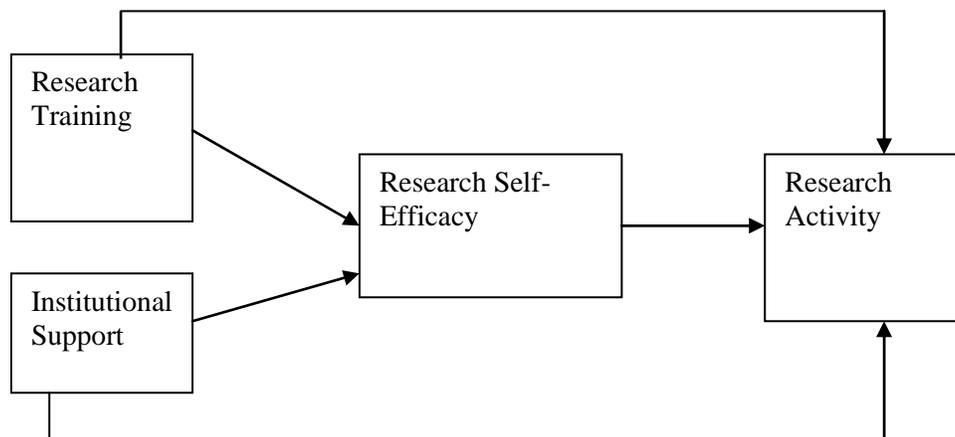
The traditional assumption is that education or training leads to activity, that is, having coursework in research methods should lead to doing research. Self-efficacy

theory suggests that there is an intermediate step, the experience of mastery which leads to perceived self-efficacy. Self-efficacy has been applied to expectations and skills regarding research. A variety of authors have found significant relationships between research self-efficacy and the training that individuals receive in graduate school in social work and related fields (Brown & Lent, 1996; Gelso, Mallinckrodt & Brent-Judge, 1996; Holden et al., 1999; Love, Bahner, Jones & Nillson, 2007).

Agency support for research may also be related to self-efficacy in research. In their study of 96 licensed social workers, Gerdes et al. (1996) found that social workers would evaluate their practice if required to do so. Many respondents in the study also listed a lack of time as a problem in doing research. Therefore, for those social workers who do wish to do research, the reality of their practice situation may preclude them from doing so. Sadique (1999) discussed some questions that researchers ask themselves while preparing to do research in their practice setting. These questions include: "How the researcher/social worker will be viewed in the organization?" "Is the research related to the current position of the social worker?" "How will the research be viewed by the workers, peers, and managers?" "Does the research support the purpose of the organization?" All these questions may affect the researcher's confidence and efforts to engage in research activity, and in turn affect his or her research activity.

In summary, the assumptions are that research training and institutional support for research activity, and research self-efficacy may have direct impact on research activity as the previous studies have documented. Further, the present study argues that both research training and institutional support may affect research efficacy and, in turn, affect research activity indirectly as well. These assumptions and arguments lead the study to propose an intervening model in which both research training and institutional support are the exogenous variables, research self-efficacy is the intervening variable, and research activity is the endogenous variable (see Figure 1). The model involves several hypotheses: (1) Both research training and institutional support for research activity have direct effects on research activity; (2) Research self-efficacy has a direct effect on research activity; (3) Both research training and institutional support for research activity have indirect effects on research activity via research self-efficacy.

Figure 1: Intervening Model of Research Training, Institutional Support, Research Self-Efficacy, and Research Activity



METHODS

Study Sample

The data for the study come from a random sample of the Clinical Register of the National Association of Social Workers (NASW). NASW is the largest professional organization of social workers in the world, with over 155,000 members. The Register provides a list of social work practitioners that have met the national education and professional standards to be a Qualified Clinical Social Worker (QCSW) and/or a Diplomate of Clinical Social Work (DCSW) (National Association of Social Workers, 2009). The QCSW can be obtained by a social worker that received a masters or doctorate from a Council on Social Work Education (CSWE) accredited program. They must also have 3000 hours of supervised clinical practice and hold a license or certificate in the state in which they practice. The DCSW must have the same qualifications as a QCSW with the addition of three years of advanced clinical practice beyond the QCSW requirements and successfully completion of the NASW Diplomate Clinical Assessment Examination. The sample was 300 individuals randomly chosen from the list.

A mail survey was conducted using available names and addresses in the list. Each survey was coded to a recipient and as surveys were returned, the number from the return envelope was checked. Two months following the initial mailing, a second mailing was sent to those social workers whose surveys were not returned from the initial mailing. All survey responses were confidential. As a reward for participating in the survey, respondents were able to receive information regarding the results of the survey and were eligible for a cash drawing valued at \$100. Ninety-six questionnaires were returned, and 87 were usable. Before the survey was conducted, a pretest of the survey instrument was performed using a convenience sample of 20 MSW level professionals attending a workshop. Some modifications were made in terms of the pretest results.

There is a concern with the representativeness of the study sample because of a low response rate (29%). To address the concern the study compared the demographic characteristics of the sample with those of the study population using age, gender, race, educational degree, and fields of practice. The study sample does not differ from the population significantly in the major demographic characteristics (see Table 1 for the comparison).

Table 1: Sample Characteristics Compared to Those of the NASW Population

Variables	Sample		NASW Population ^e	
	Frequency	%		%
Gender ^a				
Female	66	76.7		79
Male	20	23.3		21
Degree ^b				
MSW	81	94.2		91
Ph.D.	1	1.2		6
Other	4	4.7		3
Age ^c				
Under 30	0	0.0		5
30-39	9	12.8		16
40-49	29	37.2		33
50-59	28	35.9		37
60+	11	14.1		9
Race ^d				
Blacks	1	1.2		5
Hispanic	3	3.5		3
Asian	2	2.4		2
Native American	0	0.0		
Whites	67	78.8		89
Other	11	12.9		0
Practice Field				
Private Practice	23	27.1		28
Mental Health	24	28.2		21
Social Service	5	5.8		9
Medical	13	15.3		12
School	9	10.5		8
Other	11	12.9		22

Note: N is different due to missing cases.

^aSource: (National Association of Social Workers, 2000)

^bSource: (O'Neill, 2001)

^cSource: (National Association of Social Workers, 2000)

^dSource: (National Association of Social Workers, 2000)

^eSource: (National Association of Social Work, 2001)

Variables and Measures

The endogenous variable for this study is research activity. The variable is measured using the Empirical Practice and Evaluation Index (EPE) by Gerdes et al. (1996). Originally, EPE consisted of 29 items that measure the extent to which LCSWs used an empirical approach to evaluate their practice activities. The present study used 13 items relevant to this study. Each item asked respondents to indicate how frequently they used a particular empirical evaluation procedure, for example, "How often do you use a single-subject research design to evaluate practice?" Response categories range from 1 = never to 3 = routinely (a list of the items may be found in the Appendix). A sum of the response scores was made to create an index to represent research activity. The standardized Cronbach's alpha is .88 for the index.

The exogenous variables are research training and institutional support for research. Research training was measured using 10 items developed by identifying aspects of research training discussed by Montcalm (1999) and Schunk (1999). Respondents were asked to respond to the items regarding their research training in their MSW programs. For example, an item asks "Did you complete a research project in your MSW program?" There are two response categories, "yes" and "no" for all items (see Appendix 1 for a list of the items). The "yes" responses were counted to create an index of research training. The standardized Cronbach's alpha is .90 for the index.

Five items were used to measure institutional support for research. The items were developed based on a review of the Gerdes et al. survey (1996) and related literature (Babbie, 2000; Briar, 1990; Dunlap, 1993; Epstein, 1995; Fuller, 1999; Monette et al., 1998; Rubin & Babbie, 2001; Sadique, 1999; Wodarski, 1986). Each of the items is a statement regarding the current setting where a respondent practiced. For example, one item states "I am encouraged to perform empirical research on my practice." A Likert-type scale was used for these items, ranging from 1 = strongly disagree to 5 = strongly agree (see Appendix 1 for a list of the items). Items were recoded so that the score of 5 was always for an item that indicated high research support in the work environment. By taking the sum of response scores of the items an index was created for institutional support. The index has a standardized Cronbach's alpha of .65.

Self-efficacy is the intervening variable. It is measured using a scale adopted from Holden et al. (1999). The scale has 10 items that tap different aspects of engaging in research activities. The present study added an item regarding confidence in the use of Single-Subject Research Design. The items ask respondents how confident they are when they engage in research-related activities. A Likert-style scale was used for the items, ranging from 1 = not at all confident, to 5 = highly confident. For instance, one item states, "I am confident that I can formulate a clear research question or testable hypothesis" (see Appendix 1 for a list of the items). The standardized Cronbach's alpha for the index is .94.

In addition, gender, age, race, educational degree, and employment types were also included as control variables in the analysis. They may have some confounding effects on research activity. Gender is a dummy variable coded in the direction of male, and age is measured in years. Race is coded as 1 = White; 0 = other because only a few respondents

are minority group members. Educational degree was also coded as a dummy variable (1 = MSW; 0 = other) because a majority of respondents had the MSW degree (94.2%). Finally, the variable of employment types is also dichotomized with 1 = private and 0 = public (see Table 2 for the descriptive statistics of the variables).

Table 2: Descriptive Statistics of Variables

Variable	Mean	Std. Dev.	Minimum	Maximum	N
Gender	0.23	0.43	0.00	1.00	86
Race	0.80	0.40	0.00	1.00	84
Age	49.33	8.67	34.00	72.00	78
Educational degree	0.94	0.24	0.00	1.00	86
Employment type	0.27	0.45	0.00	1.00	85
Research activity	28.13	8.04	15.00	51.00	86
Research training	3.60	3.29	0.00	10.00	88
Institutional support	10.67	3.67	5.00	19.00	87
Self-efficacy	27.85	10.48	11.00	53.00	87

Analytical Strategy

Path analysis was conducted to assess the intervening model using Ordinary Least Squares (OLS) regression.¹ The analysis first assessed the effects of research training and institutional support on research self-efficacy followed by an assessment of the effects of research training and institutional support on research activity without research self-efficacy as an independent variable. Finally, the analysis assessed a full equation that includes research training, institutional support, and research self-efficacy as the independent variables and research activity as the dependent variable.

RESULTS

Table 3 presents the results of the path analysis of the proposed intervening model. The table has three regression models. The first model regresses self-efficacy on research

¹ Our sample size of 87 respondents is sufficient to detect the expected differences. There are a total of 8 independent variables in our regression analyses. If we take a fairly conservative approach to allow the R^2 to increase from 0 to 0.20 for the full model, the projected sample size is about 69 subjects.

training and research support along with the control variables. The results show that institutional support has a significant effect on research self-efficacy (Beta = .27 for institutional support). It implies institutional support is an important source of research self-efficacy. However, research training has no such effect.

The second model assesses the effects of research training and institutional support on research activity along with the control variables except the intervening variable of self-efficacy. Institutional support shows a significant effect on research activity (Beta = .23) while research training does not. As institutional support for research increases, the amount of research activity increases. In addition, gender, race, and educational degree are also significantly associated with research activity. Males and Whites were more likely to engage in research activity. Respondents who had a MSW degree were less likely to do research-related activities than those who had other degrees.

Table 3. Regression Models of Path Analysis for the Effects on Research Activity

Variable	Model 1		Model 2		Model 3	
	Beta	t-ratio	Beta	t-ratio	Beta	t-ratio
Gender	.16	1.48	.26**	2.51	.20*	2.08
Race	.01	.09	.27**	2.69	.27**	2.85
Age	.18	-1.53	-.09	-.80	-.01	-.14
Educational degree	1.53	-1.67	-.26*	-2.50	-.20*	-2.07
Employment type	.06	-.53	-.19	-1.79	-.16	-1.70
Research training	.04	-.37	-.12	-1.13	-.10	-.99
Institutional support	.27*	2.28	.23*	2.17	.14	1.40
Self-efficacy	-----	-----			.38**	3.63
R ²	.20		.34		.45	
N	76		75		75	

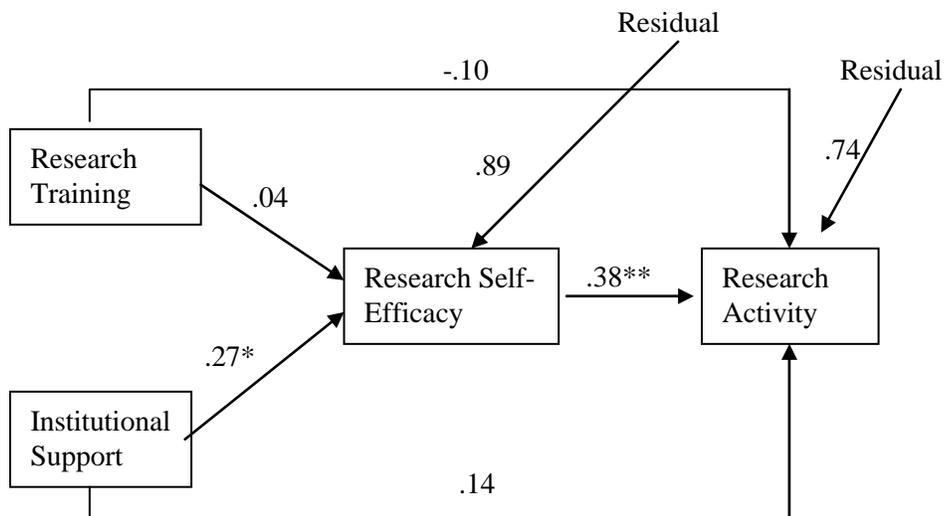
Notes: ^{dv}Dependent variable for the model.

*p<.05

**p<.01

The last model examines whether research training and research support have significant effects on research activity when self-efficacy is included as an independent variable and assesses the direct effect of self-efficacy on research activity when the effects of research training and research support, as well as the control variables, are held constant. The results indicate that institutional support is no longer a significant predictor of research activity when the self-efficacy is controlled. Self-efficacy shows a significant effect on research activity (Beta = .38). Social workers who had stronger research self-efficacy were more likely to engage in research activity than those who had weaker self-efficacy. These findings imply that institutional support has no direct effect on research activity. Its effect is mediated by research self-efficacy, meaning that it has an indirect effect on research activity via self-efficacy. Research training still does not have an effect on research activity. Additionally, gender, race, and educational degree are still significant factors when self-efficacy is controlled.

Figure 2: Intervening Model of Research Training, Institutional Support, Research Self-Efficacy and Research Activity with the Beta Coefficients



DISCUSSION AND CONCLUSION

Previous studies have identified research training, institutional support for research, and self-efficacy as important factors influencing the research activity necessary to establish researched interventions for social workers. Building upon these studies, the present study developed an intervening model using these factors. The model hypothesized that both research training and institutional support are exogenous variables, self-efficacy is the intervening variable, and research activity is the endogenous variable. Using data collected from a sample of registered social workers the study assesses the model. The findings provide support for the hypothesized model.

Research self-efficacy appears to be most important for those social workers to engage in research activity. It has a direct effect on research activity when research training and institutional support as well as several other important variables are controlled. Social workers who had strong self-efficacy in research were likely to do research-related activities. Self-efficacy is also an important mediating factor for the effect of institutional support. These findings support the hypotheses in the model.

Research training does not show a significant effect on research activity when institutional support and other important demographic variables were controlled. It may imply that social work practitioners' self-confidence in research and the working environment are more critical for doing research activities when they get into the actual field. Research training may have already been transformed in the form of research self-efficacy. Another possible explanation of the non-effect of research training is the time since receiving MSW research training. There may be problems with the results due to relatively long time since graduation from the MSW training program. Individuals involved in earlier studies were current graduate students and were familiar with the research training they were receiving, permitting them to better judge the impact of research training on their research activity. On the other hand, since these social work practitioners had a mean graduation year of 1982, many of them had difficulty remembering their research education. They commented that they had difficulty remembering how many research classes they had while in graduate school or what research skills they were taught to use while in graduate school. Perhaps a study of what recent graduates of MSW programs think of their training in research would provide better results that support others who have seen the importance of training on research activity (Lyons, 2000; Reid, 1993).

Finally, the causal order between self-efficacy and research activity may be problematic given that this was a cross-sectional study. If social workers are successful using their research skills and/ or being rewarded for research activity, they may develop more research efficacy. The cross-sectional data do not allow us to have a definitive determination of whether self-efficacy leads to research activity or it is subsequent to research activity. By doing research, the participants may have improved their research self-efficacy. This issue needs to be addressed in future longitudinal studies.

It is a concern that research training in MSW education does not have an effect on research activity in social work practice, no matter what the reason. The Council on Social Work Education had identified research as one of the nine foundation areas necessary in all BSW and MSW curriculums. More recently, the 2008 Education Policy and Accreditation Standards, under Education Policy 2.1.6, indicate that competent social workers must be involved in research:

Social workers use practice experience to inform research, employ evidence-based interventions, evaluate their own practice, and use research findings to improve practice, policy, and social service delivery. Social workers comprehend quantitative and qualitative research and understand scientific and ethical approaches to building knowledge. Social workers

- use practice experience to inform scientific inquiry and
- use research evidence to inform practice. (CSWE, 2008)

Although a supportive research environment is not likely to affect social workers' engagement in research activity directly, it is likely to affect their research self-efficacy and, in turn, affect their research activities through self-efficacy. It also supports our hypothesis and is consistent with the previous studies (e.g., Montcalm, 1999). Social workers often find themselves working in agencies whose administrations are wary of doing research that is not required by funding organizations. The social worker in such agencies meets with resistance by those that must approve research (Yegidis & Weinbach, 2006). Some agencies are concerned that an evaluation of the work done may reflect poor performance. Due to this, some agencies are not only nonsupportive, they are even hostile to research. This makes for a difficult work environment for the social worker who believes it is important to perform evaluations of interventions (Yegidis & Weinbach, 2006).

One implication is that agencies need to look at policies that may affect the level of support they are willing to give social work practitioners who would like to do research in order to increase involvement in research activity. Such support enhances social workers' research self-efficacy. In our study, a high percentage of the social workers felt that institutional support was not evident. Agencies must realize the importance of research on interventions and social workers must inform the agency of the importance of research in the identification of effective strategies that will improve outcomes. Further study is necessary to identify how agencies can be persuaded to support research.

Since the work environment is linked to research self-efficacy, it is important to find ways to improve the support level at agencies. Agency administrators must learn to value research for its ability to show the effectiveness of interventions, and realize that if an intervention is ineffective, it will not help clients, and will also impact the communities' negative or positive perception of the agency.

Social workers are expected to be involved more and more in researched interventions (Evidence-based research) due to the need for effective and accountable practice. As interventions are researched more, there will be increased availability of known, effective interventions from which social workers can choose. Additionally, it is important to the profession that we develop practice guidelines that will help us decide on proper interventions. To establish these guidelines, we also need to research the interventions' implementations (Rosen, 2003). Too many times social workers depend on lay judgments instead of a systematic decision making process guided by evidentiary criteria (Rosen, 2003). This practice puts both the client and social worker at risk.

Social work as a profession and the agencies that employ social workers are demanding more evidence of the quality of the interventions. As has been discussed, social workers do not always choose interventions that have been researched as to their effectiveness. But the social worker's commitment to the client's best welfare is a basic value of social work. This means providing the client with the most effective, cost efficient treatment available. Without research on practice, we will be unable to respond to this basic value. Social workers must develop an organized knowledge base of

evidence-based practice. By doing so, social workers will not be wasting as much of their resources on interventions that are not effective and more cost effective practices will be supported (Gellis & Reid, 2004).

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APPENDIX: MEASUREMENT ITEMS**Research activity:**

How often do you.....

- search electronic data bases scholarly literature
- use technological advances in carrying out research
- measure goals and objectives to evaluate your own or an agency's practice
- design and implement a measurement approach to study some aspect of social work practice
- present your studies and their implication orally (e.g., in conference presentation, in workshops, for agency demonstrations)
- review research to improve the quality of your social work practice
- participate with others who are .developing a research design
- collaborate with others to present studies and their implications in written form
- write items for a questionnaire
- work with others to develop survey questions
- read social work journal relevant to practice
- read journals from related fields (e.g., sociology, psychology etc.) relevant to practice
- use a single-subject research design to evaluate practice

Research training:

Please respond to the following regarding your research training in your MSW program:

- Did anyone try to persuade you to be involved in research activities?
- Did you have hands on experience in evaluating clinical/direct practice?
- Did you complete a research project in your MSW program?
- Did you have faculty mentoring to help formulate a clear research question?
- Did you have faculty mentoring to help conceptualize a hypothesis?
- Did you have faculty mentoring to help construct a research instrument?
- Did you have faculty mentoring to help collect data?
- Did you have faculty mentoring to help do a statistical analysis?
- Did you have faculty mentoring to help write up your research?
- Did you have faculty mentoring to help prepare presentations of research results?

Institutional support:

Please circle the appropriate number regarding these statements involving your current working setting:

- I am encouraged to perform empirical research on my practice.
- I am given enough time at my job to perform research tasks.
- No payers (insurance, county, managed care organizations) support empirical research at my job.
- I am given financial incentives to perform empirical research at my job.
- I have access to continuing education for development of my empirical research skills.

Self-efficacy:

I am confident that I can . . .

- do effective electronic database searching of scholarly literature
- use various technological advances effectively in carrying out research (e.g., Statistics packages, Internet resources)
- review a particular area of social science research, and write a balanced and comprehensive literature review
- formulate a clear research question or testable hypothesis
- choose a reliable and valid outcome measure
- choose a research design that will answer a set of questions and/or set a hypothesis about some aspect of social work
- design and implement the best measurement approach for studying some aspect of social work
- design and implement the best sampling strategy possible for studying some aspect of social work
- design and implement the best data analysis strategy possible for studying some aspect of social work
- effectively present my study and its implications to other practitioners
- effectively perform a single-subject research study