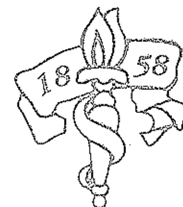
Winona State University



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May 12, 2008

American Association of Diabetes Educators
Attention: Karen Fitzner, PhD Chief Science and Practice Officer
200 West Madison Street, Suite 800
Chicago, Illinois 60606

Dear Dr. Fitzner,

Attached is my final report for the AADE/Sigma Theta Tau 2007 grant. The report is organized according to the study's aims. It also includes a report on the budget, a report on the grant reviewers' comments, and final remarks. I will be presenting this study, its findings, and implications at the 2008 Annual Meeting in August.

I sincerely appreciate the opportunity I have had in using this funding to investigate innovations in diabetes education. The findings of this study are opening avenues for further funding opportunities and expansion of this program of research.

Please feel free to contact me if you have questions about this report or the study. The best way to reach me during the summer months is through my e-mail address: mscheckel@winona.edu or by calling my cell phone: 608-344-0971.

Sincerely,

Martha M. Scheckel

Martha M. Scheckel PhD, RN
Assistant Professor, Department of Nursing

Project Summary Report

American Association of Diabetes Educators/Sigma Theta Tau International Honor Society of Nursing Grant

Reforming Approaches to Diabetes Education Through Enacting New Pedagogies

Martha M. Scheckel PhD, RN, Assistant Professor-Nursing

Winona State University, Winona, Minnesota

May 12, 2008

Final Report

The specific aims of this study included the following:

1. Pilot test a new multi-modal continuing education model on new pedagogies (teaching approaches) to increase the pedagogical expertise of certified diabetes educators.
2. Use interpretive phenomenology and hermeneutics to investigate certified diabetes educators' experiences with learning and using a new continuing education model.
3. Use interpretive phenomenology and hermeneutics to investigate how certified diabetes educators' understanding of new pedagogies influences how they provide diabetic education.
4. Use results of this study to inform the design of a larger multi-site international study investigating the use of new pedagogies for diabetes education.

Report on Aim 1 and 2:

As proposed (see Appendix A), the principal investigator provided the diabetes educators with one on-site two hour in-service on new pedagogies (phenomenological, feminist and critical pedagogies) in diabetes education. At the time of the in-service she introduced to them three asynchronous web-based modules in the new pedagogies. Winona State University provided her with "Softchalk LessonBuilder" (http://www.softchalk.com/) software to design, format, and deliver online:

1. Content on the new pedagogies
2. Exemplars from diabetes educators using each of the new pedagogies to provide diabetes education
3. Links to full text articles specific to each of these pedagogies

An analysis of interview data from participants indicated that the modules were easy to use, efficient, interesting, informative, and cost effective. They also reported that they appreciated the way the modules were structured. For example, one participant reported that, "with a paragraph or two on one page and not a big long [text] and you flip to the next page, you feel like you're making progress." Participants also reported that the module format made learning "relaxing." Not feeling "stressed" with traveling to a conference and "sitting through it" promoted learning. One participant reported she has experienced falling asleep at continuing education conferences and wondering if she was learning by "osmosis." For her, as well as other participants in the study, the modules were a form of learning she could do on her own time and at her own pace. She believed this method of continuing education actually improved her learning. Another benefit of the online modules included participants' ability to return to them "again and again" to review the information and learn new information, which enhanced their application of the pedagogies in clinical practice. The data from this study raises critical questions in which the principal investigator will further analyze during the publication phase of this research: *How does online continuing education promote engagement in learning and impact practitioners' learning outcomes? Does online continuing education result in improved patient outcomes?*

In addition to the online modules, the study also included monthly teleconferences. The principal investigator invited participants to join in 90 minute monthly teleconferences (using TelSpan) to

engage them in problem solving and brainstorming regarding using the new pedagogies. The conferences were also aimed at providing participants with the opportunity to discuss their experiences, questions, and concerns using the continuing education model and applying the new pedagogies.

Overall, the teleconferences were not as effective as the online modules. Competing demands of participants only allowed 15-20 minute teleconferences leaving little time to discuss in depth the new pedagogies or participants' use of modules. However, one participant did highlight that the teleconferences promoted learning "altogether" with her colleagues. She commented that, since they had all read the modules, they were all "on the same page." This created a learning environment where collegial dialogue promoted sharing of perspectives on the modules, new ideas, as well as discussions of barriers in implementing the new pedagogies. She reported that this approach to learning was different than each of them going to a conference and trying to share what they learned with one another. The data from this study raises another critical question in which the principal investigator will further analyze during the publication phase of this research: *Is formal collegial dialogue a form of continuing education in need of further development?*

Report on Aim 1 and 3:

Data analysis revealed that, as participants read and learned the content in the online modules, they reported recognizing they were using the new pedagogies already. The modules gave them language for the approaches they were using in addressing contextual concerns when providing diabetes education. What follows are a few exemplars from some of the interviews reflecting participants' use of the new pedagogies. The principal investigator will expand on her interpretation of this data in the publication phase of this study.

"So I guess in going over the modules, it really kind of affirmed to me that that's [the use of the new pedagogies] is the right route to take just to find out where they're at [the person with diabetes] and then bargain with them." **(critical and feminist pedagogy)**

"I almost always will start asking questions – how long have you had diabetes? What do you do? Because I know what might be on the chart is not exactly what they do. And so I get a little story of I was on this, and then they put me on this." **(phenomenological pedagogy)**

"I can't think of those nurses in particular, but they'll make some offhand comment and sometimes it's a little authoritative, you know, you need to listen to her [the person with diabetes]." **(critical pedagogy)**

"This patient had gestational diabetes and she did not think she had it. No way, no how. Her blood sugar was in the 200s, she's carrying a baby and walked in [to the diabetes clinic] and she didn't even have an appointment. I had a referral for her but she just walked in and wanted to talk to us and I went ahead and sat down with her and tried to listen to her and come down to her level and actually, even though I was very straight with her, this is your diagnosis, this is what is happening, she still stayed, I think she was ticked off about the whole thing but she stayed and talked to me longer than she probably had talked to anyone else. She was at least able to talk to me civilly which from the doctor's perspective she was just out of control." **(feminist pedagogy)**

Despite participants' recognition of their use of the pedagogies, there was some evidence that they believed since they already "knew" the pedagogies that there was not a great need to deepen their knowledge base. To overcome this resistance to learning the pedagogies in great depth and detail, the principal investigator attempted to show participants parallels between information presented at the Annual AADE Meeting in August of 2007 with the new pedagogies. She hoped that this would demonstrate to them that they had a good grasp on the pedagogies, but they could deepen their knowledge of them in more complex ways. She provided Appendix B to them during a teleconference but there was little response to it. Therefore, at this juncture, the following critical questions arise: *If diabetes educators are already using the new pedagogies, how can this study contribute to developing a continuing education program that provides the educators with more in-depth understandings of the approaches they are using? If educators expand their knowledge base of the new pedagogies, how will that influence outcomes for those with diabetes?*

Report on Aim 4:

This study was limited to a small sample and a single site. The principal investigator is currently seeking funding through the American Diabetes Association to replicate this study in multiple sites. She also plans to explore replicating this study for those who are not certified diabetes educators (CDE's). In an attempt to gain a sense of needs to replicate this study for those who are not CDE's, she presented the modules to a group of public health nurses. These nurses overwhelming supported how the modules could address their need to learn these approaches in more depth to better care for those with diabetes. These nurses wished to learn these approaches for diabetes education and other patient education. The investigator believes that, at this time, if she is to develop a continuing education program where healthcare providers learn the new pedagogies, it seems important to develop the program based on data from various users of the modules. In other words, as she expands her work, in testing the modules with various populations of healthcare providers, she hopes to offer it to a broad audience—(i.e., those who both specialize in diabetes education and those who do not specialize in it but are responsible for diabetes education in their respective practices). Additionally, while she seeks funding to replicate this study, she did submit a grant to the American Nurses Foundation to fund an interpretive phenomenological study investigating patients' experiences of receiving patient education. She understands that development of a continuing education program in the new pedagogies needs to be informed by patients' perspectives of patient education.

Report on Budget:

There remains only $253.62 in the budget for this grant. The funding was used as outlined in the grant budget. The amount left in the budget reflects an overestimation of the fringe benefits that were needed. It will be returned to the American Association of Diabetes Educators.

Report on Reviewers' Comments:

At the time the American Association of Diabetes Educators informed me that I was the recipient of this grant, I received a summary of grant reviewers' comments (Appendix C). Dr. Price asked me to incorporate reviewers' recommendations into my study. What follows is a summary of how I addressed their comments:

1. Reviewer A suggested avoiding referring to people with diabetes as diabetics. Throughout this research process and in my documentation of the study, I now state "those with diabetes" rather than "diabetics." This reviewer also underscored the need to address the coaching/facilitating and problem solving approaches of diabetes educators. As I begin to publish the findings of this study, I will review the literature on these approaches and compare and analyze how they overlap, diverge from, or enhance approaches subsumed under the new pedagogies.
2. Reviewer B wondered why I was using EndNote X to analyze the data rather than other software such as NVivo. In my doctoral program, my advisor believed that qualitative data management software programs promoted reductive data analysis. Coding sentences or partial sections of entire stories told by participants prohibited rich interpretations of data because the researcher(s) cannot interpret the "whole story" in a comprehensive way. I discovered EndNote allowed me to enter entire stories told by participants in the abstract section of the program thus permitting an interpretation of "wholes" rather than only parts. It also allowed me to use the keyword function to search across stories for common themes and patterns and print combinations of stories falling into these themes and patterns. Despite my experience with EndNote, I am exploring the use of NVivo to judge for myself (post-doctorate) its usefulness in managing data for a qualitative study.
3. Review C wondered who developed the web based modules. I developed them with technical support from the Winona State University's E-Learning department. Regarding reviewer C's comment about bias, adhering to the standards of rigor (outlined in the grant proposal) will minimize bias.

Final Remarks:

As I continue to analyze the data from this study in preparation for presentations and publications, I believe I will be able to reveal a great deal of new insights. These insights will indeed contribute to knowledge on continuing education for diabetes educators. They will also contribute to further development of use of the new pedagogies in diabetes education and in patient education. I am very appreciative of how this grant has assisted me in launching this important work and original contribution to knowledge development in diabetes education.

APPENDIX A

Scientific Abstract

Diabetes educators report that they need to expand their repertoire of diabetes education approaches to address the contextual concerns of those with diabetes. Contextual concerns reflect diabetics' unique situational experiences, e.g., socioeconomic disparities, family dynamics, healthcare system access barriers, etc. that matter to them and often influence how they learn, use, and integrate diabetes care instructions into their lives. Although there is a plethora of studies on diabetes education, these studies do not always address how diabetes educators can recognize and address diabetics' contextual concerns. The purpose of this pilot study is to document how diabetes educators, through the use of a multi-modal continuing education model, learn and use new pedagogies (phenomenological, feminist, and critical teaching approaches) for diabetes education. New pedagogies emphasize contextual concerns and generate new possibilities for diabetes education. Ten certified diabetes educators from a multi-disciplinary diabetes education team will be recruited for this study. Using interpretive phenomenology and hermeneutics this study will a) investigate certified diabetes educators' experiences with learning and using a new continuing education model and b) investigate how certified diabetes educators' understanding of new pedagogies influences how they provide diabetic education.

General Public Abstract

Diabetes educators report that they need to expand their skills in diabetes education to address the contextual concerns of diabetics. Contextual concerns reflect diabetics' unique situational experiences, e.g., socioeconomic disparities, family dynamics, healthcare system access barriers, etc., that matter to them and often influence how they learn, use, and integrate diabetes care instructions into their lives. Although there are many studies on diabetes education, these studies do not always explore how diabetes educators can recognize and address diabetics' contextual concerns. The purpose of this study is to document how diabetes educators, through the use of a continuing education model that uses web based and phone conferencing technology, can help diabetes educators learn and use new teaching approaches that emphasize contextual concerns. New contextually based teaching approaches offer novel possibilities for diabetes education. Ten diabetes educators from a multi-disciplinary diabetes education team will be recruited for this study. Using a research method that analyzes lived experiences this study will a) investigate diabetes educators' experiences with learning and using a new continuing education model and b) investigate how diabetes educators' understanding of new pedagogies influences how they provide diabetic education.

Specific Aims

Objectives:

1. Pilot test a new multi-modal continuing education model on new pedagogies (teaching approaches) to increase the pedagogical expertise of certified diabetes educators.
2. Use interpretive phenomenology and hermeneutics to investigate certified diabetes educators' experiences with learning and using a new continuing education model.
3. Use interpretive phenomenology and hermeneutics to investigate how certified diabetes educators' understanding of new pedagogies influences how they provide diabetic education.
4. Use results of this study to inform the design of a larger multi-site international study investigating the use of new pedagogies for diabetes education.

Rationale:

Current approaches to diabetes education emphasize the provision of information and teaching health promotion activities to promote glycemic control and prevent diabetes complications. For example, common approaches to diabetes education include teaching diabetics the causes and the complications of diabetes and strategies for glucose monitoring, coping, exercise routines, skin care, and so forth. These educational approaches guide the provision of diabetes education and are important and necessary, but they are not sufficient. That is to say, the provision of information in diabetes education does not always cause those with diabetes to change their behavior to prevent diabetes complications. Moreover, those with diabetes may not engage in health promotion activities in the absence of healthcare providers understandings of the influence of diabetics' contextual concerns (Doane & Varcoe, 2005). Contextual concerns reflect diabetics' unique situational experiences, e.g., socioeconomic disparities, family dynamics, healthcare system access barriers, etc., that matter to them and often influence how they learn, use, and integrate diabetes care instructions into their lives. For instance, low socioeconomic status is a contextual concern that means some diabetics may not have the resources to attend diabetes education sessions. Additional approaches to diabetes education would account for *how* diabetes educators can teach in ways where they become skilled at recognizing and addressing the contextual concerns of diabetics, which brings about new and important approaches to diabetes education. Phenomenological pedagogy, which addresses the importance of diabetic patients' practical wisdom in constructing meaningful diabetes education; feminist pedagogy, which addresses gender and socioeconomic disparities in diabetes management; and critical pedagogy, which addresses diabetics' experiences of oppressive diabetes teaching practices, are pedagogies that attend to the contextual concerns of diabetics and reveal new approaches to diabetes education.

Research Questions:

1. What are the experiences of certified diabetes educators learning and using a new continuing education model?
2. How do certified diabetes educators' understanding of new pedagogies influence how they provide diabetes education?

Significance: Providing diabetes education is of paramount concern to diabetes educators who strive to promote the health of those with diabetes and to prevent them from acquiring

complications of diabetes. However, diabetes educators report they are often frustrated when providing diabetes education because they realize that their approaches to diabetes education are limited to "things *we* tell patients to do." Diabetes educators recognize that current approaches to diabetes education are "not enough" and they find that diabetes education is "difficult due to too little experience with a range of ways to teach patients." For example, diabetes educators often express concerns about "best teaching practices" to address issues of diabetics' "compliance" with treatment regimes. One diabetes educator stated:

> I have come to hate the term non-compliance. I receive calls from nurses who ask an educator to come and see a "non-complaint patient." Frequently, the nurse has just looked at a lab, or the patient, or some issue without ever discussing diabetes with the patient. Perhaps the patient wants to do as recommended and wants good glucose control but just can't afford the meds, or has trouble despite all of the meds and follow-up he or she gets. Perhaps the A1c is 8.5%, but they don't see that it was 9.5% six months ago. There are many reasons that patients have poorly controlled diabetes and it isn't necessarily their fault.

This diabetes educator's remarks mirror comments from other diabetes educators who express concern over healthcare providers' failure to understand a diabetic's larger context of living with diabetes. One diabetes educator commented that she cared for a "poorly controlled" diabetic where healthcare providers labeled the patient as "non-compliant" only to discover that the court declared the patient incompetent and in need of a power-of-attorney for healthcare. Another diabetes educator remarked on how healthcare providers could not understand why a young man with diabetes could not control his diabetes. Yet, greater insight into this man's life revealed that he was a young single father who, according to the diabetes educator, "has more going on in his life than diabetes."

The contextual concerns of diabetics call diabetes educators to learn various pedagogical approaches to assist them in building their expertise in diabetes education. What follows is a description of the existing knowledge on predominant approaches to diabetes education and the literature related to new pedagogies (e.g., phenomenological, feminist and critical) for diabetes education.

The majority of the research literature on diabetes education is committed to evaluating the outcomes of group education sessions. Many studies evaluate group approaches whereby diabetes educators incorporate the American Diabetes Association (ADA) Standards of Medical Care in Diabetes (ADA, 2006) using a variety of strategies including lecture, discussions, questioning, and so forth (DeSouza & Nairy, 2004; Gillard, et al., 2005; Wendel, Durso, Zable, Loman, & Remsburg, 2003). Likewise, other research studies incorporate the diabetes standards of care to evaluate the effectiveness of individualized diabetes instruction. These individual approaches, include, but are not limited to, telephone (Heisler & Piette, 2005; Kim & Oh, 2003), coaching (Whittmore, Chase, Mandle, & Roy, 2002; Whittmore, Melkus, Sullivan & Grey, 2004), and goal setting (Estabrooks et al., 2005; Sturt, Whitlock & Hearnshaw, 2006) instructional sessions. All of these approaches have positive physiological and/or psychological outcomes and are very important to continue using in diabetes education. However, these approaches do not always capture the contextual concerns of diabetics.

Although, there are no studies where researchers have investigated the use of phenomenological, feminist, and critical pedagogies for diabetes education, there are a few studies using phenomenological, feminist, and critical social theory as research paradigms to investigate diabetes. These studies have implications for new pedagogies that can help diabetes educators recognize and address diabetics' contextual concerns. For example, Hartrick (1998) conducted a phenomenological study to analyze the experiences of those with diabetes. Her study revealed the importance of providing diabetes education that the diabetic felt was meaningful to his or her particular life circumstances. Hepworth (1999) completed a feminist study examining the social and familial influence on women's diabetes management. She showed how gender inequities prevent women from adequately caring for their diabetic needs. A diabetes educator's recognition of the extent of these inequalities (e.g., male influences on meal preparation) can help improve the lives of women with diabetes. Dickinson (1999) conducted a study using critical social theory that highlighted how adolescents are a group oppressed by medical professionals' paternalistic assumptions about their ability to advocate for themselves. This study underscored the need to teach adolescents self-advocacy skills.

The specific aims and significance of this study emphasize that teaching diabetes educators to use phenomenological, feminist, and critical pedagogies is an important first step in making diabetes education context specific. Diabetes education approaches that include these pedagogies capture the contextual concerns of diabetics and contribute to innovations in the overall planning and efficacy of diabetes educational strategies. However, to date no such studies exist investigating the use of a multi-modal continuing education model to teach diabetes educators these approaches to diabetes teaching. Furthermore, no studies exist investigating the influence these pedagogical approaches have on how diabetes educators provide diabetes education.

Methods and Timetable

Study Design: Interpretive phenomenology is the philosophical background for this study. Interpretive phenomenology assumes humans are self-interpreting, social, dialogical beings who have shared or common understandings (Plagar, 1994). These understandings are part of our everyday experiences such that they are taken for granted and often go unnoticed. Yet, these understandings reveal what we find meaningful, influencing the lens through which we interpret and are involved in the world around us. For example, in every situation humans have shared or common experiences that are shaped by background understandings that are beset with meanings that cannot be completely exhausted. However, humans continually interpret background understandings for what matters and does not matter. With interpretive phenomenology as the philosophical background, hermeneutics provides the method to interpret narrative accounts of subjects' experiences. Hermeneutics is the art of interpreting texts (Palmer, 1969). Researchers using hermeneutics interpret narrative accounts of experiences for themes and patterns (Benner, 1994). Themes are common experiences that reflect shared meanings and are present *in some*, but not all, narrative accounts. Patterns are the highest level of interpretation and are common experiences that reflect shared meaning present in *all* narratives They convey the relationships of the themes (Diekelmann & Ironside, 1998).

Subjects and Setting: The investigator will recruit 10 certified diabetes educators from a multi-disciplinary diabetes education team from Mercy Medical Center, a healthcare setting in Des Moines, Iowa. In an interpretive phenomenological and hermeneutical study, a sample size of 10 is

appropriate because the aim is *not* to report generalizabilitiy of results. Rather, the aim of such an approach to research is to describe common experiences that reveal meanings previously unaccounted for—meanings that often positively transform clinical thinking to reform practice. The certified diabetes educators provide individual and group education in both urban and rural outpatient settings for type 1, type 2, and gestational diabetics. There will be no restrictions or requirements related to subjects' gender, race, ethnicity, level of education or years of experience as a certified diabetes educator. Subjects will be recruited through personal contacts the investigator has had with a representative of the collaborating institution. Participation in this study is strictly voluntary and subjects may withdraw from the study at any time. (Institutional Review Board approval is being sought from both Mercy Medical Center and Winona State University.)

Instruments: Because this is a qualitative (i.e., interpretive) study there is no use of instrumentation to collect data.

Intervention: The diabetes educators participating in this study will receive one on-site two hour in-service on how to use new pedagogies (phenomenological, feminist and critical pedagogies) in diabetes education. At the time of the in-service, the principal investigator will introduce to the diabetes educators involved in the study, three asynchronous web-based modules in the new pedagogies. The three modules will contain (a) content on the new pedagogies, (b) exemplars from diabetes educators using each of the new pedagogies to provide diabetes education, (c) reference lists with full text articles specific to each of these pedagogies, and (d) links to relevant web sites related to the pedagogies. The modules will help diabetes educators participating in the study to understand the pedagogies that underpin their current diabetes education practices while offering new understanding for using new pedagogies to provide diabetes education. Throughout the study, the diabetes educators will have unlimited access to the modules. The diabetes educators will also be invited to participate in 90 minute monthly teleconferences (using TelSpan) with the principal investigator to engage in problem solving and brainstorming regarding using the new pedagogies to provide diabetes education. Monthly teleconferences will provide diabetes educators participating in the study with the opportunity to discuss their experiences and their questions and concerns using the continuing education model and applying the new pedagogies.

Data Collection: The principal investigator for the study will collect data using non-structured, audio-taped interviews where she will ask diabetes educators participating in the study the following:

1. Reflect on your experiences learning and using the continuing education model. Please describe a time that stands out for you because it reflects what it meant to you to use this approach to continuing education.
2. Reflect on your experiences learning new pedagogies for diabetes education. Please describe a time that stands out for you because it reflects what it meant to use the new pedagogies in providing diabetes education.

Following the questions if further prompting is necessary to understand the subject's experiences, the principal investigator will ask other questions such as: "Can you give me a 'for instance'?" or "What did that mean to you?" After the interviews are completed, each audiotape will be assigned an identification number and will be submitted to a transcriptionist. To ensure confidentiality of the information disclosed in the interviews, the transcriptionist will replace all identifying information

(such as names and places) with pseudonyms. After the interviews are transcribed and verified for accuracy, the principal investigator will destroy each audiotape and securely store their corresponding consent forms.

Data Analysis: The hermeneutical analysis of the interview texts will begin when the principal investigator individually reads each text to gain an overall understanding of the narrative accounts of the subjects' experiences and writes an interpretation. The principal investigator will identify any themes and/or patterns. The principal investigator will support her interpretations with excerpts from the texts. She will clarify vague or unclear meanings through referring back to the text, and when necessary, re-interviewing subjects. EndNote X software will be used to code themes and synthesize interpretations, store interpretations, and search across data for common themes.

Although there is no one correct interpretation when conducting a hermeneutical study (only warranted interpretations), the principal investigator will evaluate the scholarliness of the interpretations according to G.B. Madison's (1988) principles: coherence, comprehensiveness, penetration, thoroughness, appropriateness, contextuality, agreement, suggestiveness, and potential (p. 29-30). Madison developed these principles from interpretive phenomenological texts, particularly those of H-G Gadamer. Madison relates that these principles can be used as a method for ensuring *"good judgment"* (p. 28). Further, according to Madison, these principles are akin to ethical norms whereby the one interpreting the text uses the principles contextually and with appropriate ethical decision making rather than applying them like a set of rules to "test" or validate findings. The latter approach, which reflects the scientific method, is not the appropriate method for evaluating scholarliness in interpretive research.

Timetable:

Stage One: Months One and Two: The principal investigator will recruit the subjects and develop the continuing education model. TelSpan will be initiated and established for teleconferences. Data management guidelines via EndNote X will be reviewed and established.

Stage Two: Months Three and Four: The principal investigator will make one on-site visit to the collaborating institution to provide subjects with a two hour in-service to introduce them to the new pedagogies. At the time of the in-service, the subjects will be introduced to the three asynchronous modules in the new pedagogies. During the site visit the principal investigator will establish media connection with the collaborating institution and will establish dates and times with subjects for the teleconference calls. Teleconference calls will begin at the end of month four following the on-site visits.

Stage Three: Months Five and Six : The web-based modules will continue to be available to subjects. The monthly teleconferences will also continue. Interviews of subjects will begin at the end of the sixth month and hermeneutical analysis of the data will begin.

Stage Four: Months Seven to Twelve: The web-based modules will continue to be available to subjects. The monthly teleconferences will also continue. Analysis of the data will continue. Grant sources for expanding the study to including international sites and including patients experiences with diabetes educators who have learned the new pedagogies will be sought. Plans for dissemination of the study's results at the conferences such as those sponsored by the American

Association of Diabetes Educator and Sigma Theta International Honor Society of Nursing will be made.

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BUDGET and JUSTIFICATION (Revised Budget for M. Scheckel AADE/Sigma Grant, July 29, 2007)

(Travel that is unrelated to conducting the study will not be supported, nor will indirect costs, capital improvements and computer hardware. Funding will be awarded to the institution, not directly to the applicant.)

Pe rsonnel (position/title)

Item	Amount
Martha Scheckel PhD, RN Principal Investigator release time salary (shift $637.13 from consumable supplies, permanent equipment, and computer cost)	$3,981.98 (previously $3,344.85)
Martha Scheckel PhD, RN Principal Investigator prorated fringe benefits	$1, 170.70 (no change)
Bobbi Hunt (transcriptionist)	$ 311.85 (previously $360.00)
	Subtotal: $5, 464.53 (previously 4, 875.55)

Consumable Supplies (include only when not provided by institution)

Item	Amount
Audio-Tapes	0 (previously $13.99)
	Subtotal 0

Equipment

Item	Amount
Transcription Machine	0 (previously $399.99)
	Subtotal 0

Travel

Item	Amount
Site Visit (mileage)	$282.13
	Subtotal $282.13

Other Costs

Item	Amount
EndNote Software	0 (previously $175.00)
	Subtotal 0

TOTAL **$5,746.66**

APPENDIX B

American Association of Diabetes Educators: Your Gateway to Professional Discovery
Annual Meeting August 1-4: St. Louis, Missouri

PRESENTER OR IDEA	PARALLEL WITH NEW PEDAGOGIES
Dr. Ann Albright from Centers of Disease Control:	
1. Data shows diabetes is increasing in low income populations.	Can critical pedagogy be used to access and educate low income populations?
2. There are major problems in diabetes research related to process verses outcomes. Most of the research has been on processes with little attention to outcomes.	CDE's at MMC report they are using the pedagogies, meaning they are using them as educational processes. Can (or are) the outcomes of the processes be measured and if so how?
3. Researchers and practitioners must *co-produce* knowledge. Community-based participatory action research (PAR) is one important way to accomplish this.	Polit & Beck (2004) state that PAR is closely allied with critical and feminist research. This research originates from the same theories as critical and feminist pedagogies. Would the MMC CDE's be interested in knowing more about PAR given this CDC recommendation?
Systematic Reviews of AADE7:	
1. Lack of research on minority populations	Can critical pedagogy be used to understand the needs of minority populations?
2. Little evidence on overcoming the challenges of medication adherence	How can any of the new pedagogies increase medication adherence?
3. There exist major issues with "clinical inertia." This is the inability of practitioners to engage in change and is often related to institutional systems issues.	How can the new pedagogies help practitioners overcome clinical inertia?
Poster Session: Comments from Attendee's:	
1. Many comments on the similarity of MMC/Scheckel study with William Polonsky's work, especially concerns with over burdening those with diabetes with content	Comments? Are the MMC CDE's familiar with his work—this web site? http://www.behavioraldiabetes.org/ How is this work similar to or different from Polonsky's work?
2. "I use meaning questions all the time. It seems to open up a conversation with the patient and the next time I visit the patient I have built a relationship." (paraphrased)	See phenomenological pedagogy module
3. "There is not a lot out there on the experience of the diabetes educator learning (their continuing education). AADE supports this and we need this kind of study."	One of the research questions the MMC CDE's will be asked in the interview is in relation to continuing education experiences using the multi-modal format.
4. "If I am using these teaching approaches already, what is one way to find out for sure and improve from there?"	This is a great question. Comments? Survey development is one possible way to determine this and narrow the focus on what aspects of the pedagogies need further development.

APPENDIX C

AMERICAN ASSOCIATION OF DIABETES EDUCATORS
Education and Research Foundation
100 W. Monroe Street, Suite 400 Chicago, Illinois 60603 312/424-2426 Fax: 312/424-2427

Martha Scheckel, PhD, RN
23672 Elm Ave
Tomah, WI 54660

Dear Dr. Scheckel:

We are pleased to inform you that your Sigma Theta Tau application *(Reforming Approaches to Diabetes Education Through Enacting New Pedagogies)* has been approved for funding. The application received very high scoring and positive comments from this year's reviewers, and the application is an excellent example of well-designed qualitative research.

Your grant will cover costs as indicated in your grant application. It cannot be applied to any other costs, including those associated with the AADE Annual Meeting.

A project summary report is due twelve months from receipt of grant funds. Publications should list AADE and Sigma Theta Tau support. Recipient should attempt to disseminate findings in *The Diabetes Educator* and/or AADE Annual Meeting sessions, or other professional publications. Please provide a copy of publications to AADE. In addition, a copy of the study is to be submitted to Sigma Theta Tau's Virginia Henderson Library.

Enclosed are the reviewers' comments. We strongly recommend that you incorporate the recommendations made by the reviewers.

Your award will be acknowledged at the 34th AADE Annual Meeting in St. Louis, Missouri, in August 2007. Please complete and return the enclosed form as soon as possible. An AADE Foundation representative will contact you prior to the meeting with further instruction.

All awards will be on display at the "Education Sharing Area" in the exhibit hall on the ground level. Plan on being present to discuss your successful grant application with registrants. Just look for a card bearing your name in the Education Sharing Area.

If you have any question on the arrangements, please contact Margie Lechowicz at (312)601-4803 or mlechowicz@aadenet.org.

Sincerely,

Martha J. Price

Martha Price, DNSC, ARNP, CDE
Chair, Research Committee, AADE Foundation

Enclosure(s)