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14. ABSTRACT The aim of this project is to create a one year Integrative Medicine distance learning project that utilizes a variety of media and methods (such as the internet, printed materials, texts, electronic communication, video, audio, journals, and electronic dialogues) to provide curricula to students at a distance. Our program combines highly technical expertise, with scholarly richly referenced content and attention to pedagogical technique.					
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FINAL REPORT: Integrative Medicine Distance-Learning Program

Introduction

The aim of this project is to create a one year Integrative Medicine distance learning project that utilizes a variety of media and methods (such as the internet, printed materials, texts, electronic communication, video, audio, journals, and electronic dialogues) to provide curricula to students at a distance. Our program combines highly technical expertise, with scholarly richly referenced content and attention to pedagogical technique.

Body

In the Association of American Medical Colleges *Medical School Graduation Questionnaire, All Schools Report* (2000), over 60% of graduates from 1998 – 2000 (n=40,631) stated that instruction in complementary and alternative medicine (CAM) was inadequate. The fundamental principles of integrative medicine are to promote health, optimize our natural healing and protective abilities as a human organism, as well as to prevent and treat injury and disease. This emerging field is defined as *healing-oriented medicine that takes account of the whole person (body, emotions, mind, and spirit), including all aspects of lifestyle. It emphasizes the therapeutic relationship and makes use of all appropriate therapies, both conventional and alternative.*

The Program in Integrative Medicine (PIM) at the University of Arizona has as its mission *to lead the transformation of healthcare by creating, educating, and actively supporting a community of professionals who embody the philosophy and practice of Integrative Medicine.* This University is the sole accredited institution of higher education involved in the comprehensive training of the physicians and other healthcare professionals in Integrative Medicine.

The original research hypothesis for this project were:

- Military health care professionals can benefit from online education in Integrative Medicine.
- Military personnel and their dependents can benefit from increased knowledge and skills in Integrative Medicine among military health care professionals

Further, it was believed that this training program could have the following specific benefits:

- Prevention of performance impairments related to inappropriate use of complementary and alternative modalities.
- Improved performance of military personnel associated with improved clinical prevention, chronic and acute care outcomes military personnel and dependents.

- Lower cost of care for common acute and chronic illnesses.
- Reduction of adverse effects related to the use of more toxic therapies.
- Higher patient satisfaction levels

The protocol that was envisioned was to develop a one-year curriculum for military medical personnel and to evaluate that curriculum by providing it to an initial cohort of 40 military clinical personnel. University of Arizona IRB approval was obtained immediately, however there were substantial challenges in getting IRB approval from MRMC, with nine months being devoted to this (August 2003 to April 2004). When approval deemed unlikely, we were advised by Program officer to devote the remainder of our efforts to make the curriculum significantly more relevant to the military by recruiting those signed up to be the first class to instead become our faculty advisors. Due to the lack of IRB approval, no military clinicians were able to participate in the program and therefore the research hypotheses could not be tested.

An overall summary of the project follows (for a more detailed depiction, please see Appendix A):

- **Phase 1: Months 1-18 (January 2003 - June, 2004)**
 - The Program in Integrative two-year integrative medicine curriculum was evaluated, restructured and pared down to a one-year offer. A variety of learning tools were selected including: the Internet, printed material, textbooks, electronic communication, audio CDs, videos, journals and electronic dialogues.
 - Sixteen military advisors and faculty were recruited for participation in and content provision for the curriculum (see attached list of reviewers).
 - Textbooks were chosen and sent to military faculty.
 - Continuing Medical Education was applied for and obtained from the American Academy of Family Physicians for 121 elective credits.
 - Web preparation was initiated for the new class.
 - Curriculum for intensive training and evaluation residential week was planned.
 - University of Arizona human subjects approval obtained.
 - U.S. Army Medical Research and Materiel Command human subjects approval attempted and denied.
 - April 2004 the Telemedicine and Advanced Technology Research Center Program Officer recommended division of project into two additional phases as currently outlined.
- **Phase II: Months 19-21 (July – September, 2004)**
 - Project revision to include curriculum and web development with more emphasis on ensuring military relevance, and without an actual class participating.
- **Phase III: Months 22-36 (final status)**
 - Military advisors and faculty reviewed curriculum, developing and weaving in military relevance materials.
 - Content prepared for delivery via the Internet and SCORM compatibility.

- Creating a 13 month integrated conference and online curriculum in Integrative Medicine consisting of 550 hours of training (10 hrs/week for 52 weeks + 30 hour onsite live training seminar in Tucson, Arizona). Please see Appendix B for detailed instructional schedule.
- Making the online content SCORM compatible.

Military relevance reviewers were selected from the original participant lists. These reviewers were provided with access to the online content and asked to address the following questions:

1. Given the unique aspects of military medicine and active duty populations (and their dependents), how might the reviewed content materials be best applied in clinical settings? Are there specific conditions (e.g. Gulf War Syndrome) or situations (e.g. combat-induced Post-Traumatic Stress Disorder) where this material is most relevant? If possible, provide a personal example(s) that you've encountered.
2. Do you see limitations to applying this information in military settings? Please be specific. Are there opportunities for improving the potential application of this information?

Samples of content pages as well as military relevance pages for one area (Mind-Body Medicine) are depicted in Appendix C.

It is hoped that future work could be done to run participants through this program in order to test our original hypotheses. Specifically, our concept is that additional funding would support the following:

- Implementation of the one year curriculum and completion of an evaluation of this program's impact on military health care providers and on civilian health care professionals working in military facilities will be assessed.
 - This curriculum will consist of a one year distributed learning training in nutrition, mind-body medicine, physical activity, botanical medicine, motivational interviewing, manual medicine, spirituality, Chinese medicine, homeopathy, medicine and culture and clinical integration.
 - Sixty physicians, nurse practitioners, and physician assistants from across all branches of the military will be recruited to participate. Evaluation, which will focus on the content, delivery methodology and individual learner progress, will be collected via surveys, tests and detailed participation data.
 - A one week onsite evaluation of the trainees will complete the individual assessments.
- A series of shorter online modules will be made available to military clinician enrollees over four years. The target audience for these modules are physicians, nurses and allied health professionals. These modules provide 15-20 hours of CME and are completed over a two to three month period. No onsite trainee evaluation is performed but evaluation data is gathered within the online module(s). The modules consist of:
 - Nutrition and Cardiovascular Health

- o Nutrition and Cancer
- o Botanical Fundamentals
- o Botanicals in Women's Health
- o Botanicals for Inflammation
- o Botanicals and Autoimmunity

Key Research Accomplishments

No research was possible due to the IRB issues detailed earlier in this report.

Reportable Outcomes

- No reportable research outcomes were possible due to the IRB issues detailed earlier in this report.
- **It is important to note that the entire online curriculum as depicted in Appendix B (including the enhanced military relevance sections) is now finished and are available in a SCORM compatible format.**
- **Login information has been seen to our Program Officer:**
 Jessica Kenyon
 Telemedicine and Advanced Technology Research Center (TATRC)
 U.S. Army Medical Research and Materiel Command (USAMRMC)
 Fort Detrick, Maryland
 Office: 301-619-7036
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- For technical difficulties, please contact John King (johnk@u.arizona.edu). For more general questions, please email pimcourses@ahsc.arizona.edu.

References

None

Conclusion

Given the high level of usage of CAM modalities among Americans and among military personnel, military health care professionals need to be knowledgeable about botanicals, dietary supplements and other complementary alternative medicine modalities. Although this project was unable to test our original hypotheses due to IRB issues, we were successful in evolving a significant online curriculum in Integrative Medicine oriented toward military medical personnel. Future work should focus on gaining IRB approval to make this curriculum available to military medical personnel and evaluating their response to this training.

Appendix A: Project Milestones

<i>April 2004</i>	<i>May</i>	<i>June</i>	<i>July</i>	<i>August</i>	<i>September</i>
•Protocol amended, sent to program officer, budget modified accordingly and submitted; •Recruitment of military advisors and reviewers of content	•Philosophy of IM, Intro to IM and Mindfulness modules sent to reviewers	•Mind-Body Medicine modules 1-6 sent to reviewers •Changes rec'd from curriculum sent in May	•Medicine and Culture x 6 sent to reviewers •Changes rec'd from curriculum sent in June •Web development of May content	•Mind-Body Medicine modules 7-12 sent to reviewers •Changes rec'd from curriculum sent in July •Web development of June content	•Integrative Patient Care Process and Nutrition 1-6 sent to reviewers •Changes rec'd from curriculum sent in August •Web development of July content
<i>October</i>	<i>November</i>	<i>December</i>	<i>January 2005</i>	<i>February</i>	<i>March</i>
•Nutrition 7-13 sent to reviewers •Changes rec'd from curriculum sent in September •Web development of August content	•Mind-Body II x 3 and Chinese Medicine x 4 sent to reviewers •Changes rec'd from curriculum sent in October •Web development of October content	•Homeopathy x 4 and Spirituality x 3 sent to reviewers •Changes rec'd from curriculum sent in November •Web development of November content	•Botanicals 1-6 sent to reviewers •Changes rec'd from curriculum sent in December •Web development of December content •Develop proposal for additional funding Phase II	•Botanicals 7-12 sent to reviewers •Changes rec'd from curriculum sent in January •Web development of January content	•Botanicals 13-18 sent to reviewers •Changes rec'd from curriculum sent in February •Web development of February content
<i>April</i>	<i>May</i>	<i>June</i>	<i>July</i>	<i>August</i>	<i>September</i>
•Manual Medicine x 7 sent to reviewers •Changes rec'd from curriculum sent in March •Web development of March content	•Physical Activity modules, + Tai Chi, Yoga, Guided Imagery and Stress Reduction •Changes rec'd from curriculum sent in April •Web development of April content	•Clinical Scenario #1 sent to reviewers •Changes rec'd from curriculum sent in May •Web development of May content	•Clinical Scenario #2 sent to reviewers •Changes rec'd from curriculum sent in June •Web development of June content	•Changes rec'd from curriculum sent in July •Web development of July content	•Web development of August content

Month One	Month Two	Month Three	Month Four	Month Five	Month Six
Web Tutorial (wk 1)	Interview Prep (cont) (wk 5)	MB: Preparing for Challenges	Vacation (wk 14)	Nutrition (wk 18)	Nutrition (wk 22)
Community Building**	Clinical Advisors	MC: Explanatory models (cont) (wk 10)		MBII: Art Therapy	CM: Modalities/Techniques
Intro to IM* (wk 2)	MB: Conduct Interview (wk 6)	MB: Finale (wk 11)	Assess Readiness to Change	Nutrition (wk 19)	Nutrition (wk 23)
Phil of Medicine	Med&Cult Cultural Awareness	MC: Wrap-up	Intro to IPCP (cont) (wk 15)	MBII: Hypnosis	CM: Lifestyle Practices Prev Care
					Includes Qi Gong
IM Debate (wk 3)	MB: Social Support (wk 7)	MB: Finale (cont) (wk 12)	Intro to IPCP (cont) (wk 16)	Nutrition (wk 20)	Nutrition (wk 24)
Health Resolution	Cult Awareness (cont)	Intro Integrative Care Process	Health Resolution revisited		
	MB: Disclosure (wk 8)	Vacation (wk 13)	Nutrition (wk 17)	Nutrition (wk 21)	Nutrition (wk 25)
MB I: Intro (wk 4)	MB: Control		MBII: Biofeedback	CM: Concepts	Homeopathy TB revised
Interview Prep	MC: How Culture affects care				
	MB: Self Efficacy (wk 9)				Nutrition (wk 26)
	MC: Explanatory models				Homeopathy TB revised
Month Seven	Month Eight	Month Nine	Month Ten	Month Eleven	Month Twelve
Nutrition (wk 27)	Botanicals (wk 31)	Botanicals (wk 35)	Botanicals (wk 40)	Botanicals (wk 44)	Catch up (wk 49)
Homeopathy TB revised	Spirituality	Manual Med Massage	Botanicals	Physical Activity Journal	Catch up (wk 50)
			Physical Activity Journal		
				Physical Activity (wk 45)	Clinical Scenario #4 (wk 51)
Nutrition (wk 28)	Botanicals (wk 32)	Botanicals (wk 36)	Botanicals (wk 41)	MB: Relaxation	
Homeopathy TB revised	Spirituality	Manual Med Chiro Phil	Botanicals		Clinical Scenario #5 (wk 52)
		Manual Med Chiro Tech	Physical Activity Journal	Clinical Scenario #1 (wk 46)	
Botanicals Foundations (wk 29)	Botanicals (wk 33)	Botanicals (wk 37)	Vacation (wk 42)	Clinical Scenario #2 (wk 47)	Month Thirteen
Sec I-II History and Apothecary	Botanicals	Manual Med Chiro Wrap			(wk 53)
		Manual Med Hx of Osteo		Clinical Scenario #3 (wk 48)	(wk 54)
Botanicals Quality(short)(wk 30)	Botanicals (wk 34)	Botanicals (wk 38)	Vacation (wk 43)		
Botanicals Ethics (short)	Manual Medicine Intro	Manual Med Osteo Prin			
Spirituality		Manual Med Osteo Tech			
		Botanicals (wk 39)			
		Botanicals			
		Physical Activity Journal			

Appendix C: Sample Content Pages

1. Overview or Phases Page for Mind-Body Section

UA/PIM distributed integrative medicine educa...

THE UNIVERSITY OF ARIZONA. Program in Integrative Medicine

in partnership with the U.S. Department of Defense [Fellowship home](#) | [Course](#)

Mind-Body Medicine

Your Guide



Dan Shapiro, PhD

Credits

References

All assignments

Introduction
Dan Shapiro introduces the topic of Mind-Body Medicine and why it is an important part of integrative medicine.

Creating a Mind-Body Interview
Develop a bank of questions you can use during mind-body interviews.

Clinical Advisors
Become familiar with six mind-body interventions that can be incorporated into clinical practice.

Conducting a Mind-Body Interview
Revise your interview questions and practice conducting a Mind-Body interview.

Social Support
Learn how to make social support prescriptions for patients who need them.

Meaning & Purpose
Learn how to help your patients enhance their sense of purpose. Submit a report on an organization in your community.

Disclosure
Learn how to identify who might benefit from disclosure, how to use disclosure with your patients and when to make a referral.

Control
Learn to recognize and prioritize patient control needs and think about ways increase a patient's feeling of control.

Self-Efficacy & Attributions
Understand the concepts of self-efficacy and attributions and learn how to intervene when patients have damaging attributions.

Relaxation
Learn to teach patients how to do progressive muscle relaxation and examine your own relaxation practices.

Preparing for Challenges
Learn to prepare patients for stressors they may encounter during procedures.

Stress Reduction
Learn to identify and address sources and symptoms of stress for your patients and in your own life.

Mind-Body Finale
Synthesize your Mind-Body learning by writing a letter to a skeptical colleague.

Internet zone

2. Introduction Page for Module on Control within Mind-Body Section

THE UNIVERSITY OF ARIZONA,  Program in Integrative Medicine

Main Path Military Relevance Clinical Advisor References

Control

Hi again! Welcome to the control module.

If there's any psychological principle that should dominate your thinking - even more than optimism or social support - it's that of control. The degree to which we have choice and influence in our environment has a strong impact on our health and well-being. **This would be a good time to review your clinical advisor.**

It's easiest to understand threats to control when we look at environments that take it away, like hospitals. In 1990 I was scheduled for a bone marrow transplant. In those days, laminar air-flow rooms were in vogue. They required a semi-isolated environment that approximated the "bubble" that John Travolta lived in from the movie, "Boy in the Bubble".

This is how I coped:

I thought carefully about the things I wanted to bring with me onto the Bone Marrow Transplant Unit. I started with the walls. I put up the snow leopard print. I brought in an erotic print of a woman, the curves of her waist and ribs peaking from beneath silk. And cards from well wishers to remind me of friends and family.

Main Path

Before moving on, please check out your **reading assignment** for this module...

1. Create a patient with control deficits
2. Prioritize control needs of patient
3. Recognize the control needs of others
4. Question unnecessary bureaucracy
5. Generate creative solutions
6. Practice on a complex patient
7. Feedback

Your guide to this subject:



Dan Shapiro, Ph.D.
Assistant Professor
Psychiatry
University of Arizona

3. Military Relevance Page for Module on Control within Mind-Body Section

Mind-Body Medicine: Control

THE UNIVERSITY OF ARIZONA,  Program in Integrative Medicine

Main Path Military Relevance Clinical Advisor References

 **Military Relevance**

This module is applicable to military AD and dependents.

Military Conditions

What makes military people or family members willing to give up control? To be successful, active duty soldiers give up a large amount of control. For example, if I want to take leave (time off) I have to fill out multiple forms. On the initial form I have to put an address and phone number for where I will be. I also have to fill out another form with the same information as above and I have to include why I want to take a vacation. I also have to have my car inspected even if I am just going to take some time off at my house. Finally, I have to do something called a risk assessment to make sure my planned vacation isn't too high risk to take. The last step is calling in to work and telling them I am not taking my vacation or leave and when I am done I have to sign back in so people know I am back. Loss of control seems to be the norm for the soldier and the family. Soldiers are normally told what job they will have and not given much of a choice. In schools soldiers are told when to sleep, when to get up, when to eat, when to go to the bathroom, what to wear, how to wear it, when to study and when to take a break. Loss of control is across the hierarchy from top to bottom. If we are sick, we can not just call in and say I am sick. I must go to sick call and get there during the correct hours of sick call. I have to wait in a line to be seen to have someone tell me and give me a note saying I am to sick to work. Family members have similar issues with medical problems. They must call to make an appointment. If there are no appointments then they must call back the following day. The family members are normally not seen for all of their problems at one time and are asked to come back. What makes us so willing to give up so much control?



Courtesy of DOD Image Gallery

Internet zone