THE PUPLIC PERCEPTION TOWARDS THE E-MIDICINE (INTERNET)USAGE AT SULTANAH BAHIYAH HOSPITAL ALOR STAR,KEDAH

A thesis submitted to the Graduate School in partial
Fulfillment of the requirement for the degree
Master of Science (Information Technology)
Universiti Utara Malaysia

By
Abdel rahman Mahmud A.elrekie

KOLEJ SASTERA DAN SAINS
(College of Arts and Sciences)
Universiti Utara Malaysia

PERAKUAN KERJA KERTAS PROJEK
(Certificate of Project Paper)

Saya, yang bertandatangan, memperakukan bahawa
(I, the undersigned, certify that)

ABDEL RAHMAN MAHMUD A. ELREKIE
(800002)

calon untuk Ijazah
(candidate for the degree of) **MSc. (Information Technology)**

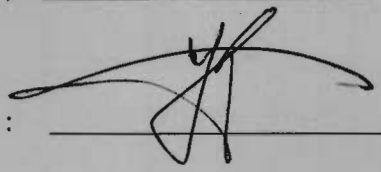
telah mengemukakan kertas projek yang bertajuk
(has presented his/her project paper of the following title)

THE PUBLIC PERCEPTION TOWARDS THE E-MIDICINE (INTERNET) USAGE AT SULTANAH BAHIYAH HOSPITAL ALOR STAR, KEDAH

seperti yang tercatat di muka surat tajuk dan kulit kertas projek
(as it appears on the title page and front cover of project paper)

bahawa kertas projek tersebut boleh diterima dari segi bentuk serta kandungan dan meliputi bidang ilmu dengan memuaskan.
(that the project paper acceptable in form and content, and that a satisfactory knowledge of the field is covered by the project paper).

Nama Penyelia Utama
(Name of Main Supervisor): **DR. KANG ENG THYE**

Tandatangan
(Signature) : 

Tarikh
(Date) : 24/11/2008

Declaration

I declare that all the work described in this dissertation was undertaken by myself (unless otherwise acknowledged in the text) and that none of the work has been previously submitted for any academic degree. All sources of quoted information have been acknowledged through references.

Abdel Rahman Mahmud A. Elrekie
November, 2008

CENTER FOR GRADUATE STUDIES
UNIVERSITI UTARA MALAYSIA

PERMISSION TO USE

In presenting this thesis in fulfillment of the requirements for the postgraduate degree from the Universiti Utara Malaysia, I agree that the Universiti Library may take it freely available for inspection. I further agree that the permission for copying of this thesis in any manner, in whole or in part, for scholarly purpose may be granted by my supervisor or, in his absence, by the Dean of the Center for College of Art and Science. It is understood that any copy or publication or use of this thesis or parts thereof for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to the Universiti Utara Malaysia for any scholarly use which may be made of any material from my thesis.

Request for permission to copy or make other use of material in this thesis in whole or in part should be addressed to:

Dean (Research and Post Graduate)
College of Art and Science
Universiti Utara Malaysia
06010 UUM Sintok
Kedah Darul Aman
Malaysia

ABSTRACT

The general purpose of this study was to find out whether a relationship between user skill, user knowledge and e-medicine performance. This study was determining the review of literature about user skill, user knowledge and e-medicine performance model as the underpinning theory to the theoretical framework.

This study presented the clear description of e-medicine as technology adoption to doctor and patient as user of the system. The significance of this research was to apply the conceptual of e-medicine in the user context. This study proposes to identify the global IT improvement towards the usage of e-medicine technology and to identify the magnitude perception among patient and medical profession toward the usage of e-medicine technology.

Independent sample T-test analysis was conducted to examine user skill and user knowledge to e-medicine performance among doctor and patient. The study confirmed that doctor and patient should improve their skill and knowledge of e-medicine. These studies strongly recommend doctor and patient in other to improve their skill and knowledge of e-medicine. Based on skill between doctor and patient has insignificant different.

Keywords: E-medicine, User Skill, User Knowledge, E-medicine Performance

ACKNOWLEDGMENT

Praise and gratitude be given to Allah the Almighty for putting forward me such a great strength, patience, courage, and ability to complete this project. My excessive gratefulness to my supportive and helpful supervisor, **Dr. Kang Eng Thye** for assessing and guiding me in the completion of the research. With all truthfulness, without his, the project would not have been a complete one. He has really been for me a center of motivation and guidance. I am truly grateful to his continual support and cooperation, as being prepared to assist me all along the completion of the project.

I must also thank to my father and also to my family for their help, encouragement, and patience that allowed me to accomplish my goals. I am eternally grateful to my mother, for supporting my emotionally, and I could not have endured without her. Grateful to my father, for supporting my venture financially and emotionally. I would also like to acknowledge my brothers and my sisters. My thanks also to my friends, staff and colleagues at college of art and science of Universiti Utara Malaysia.

TABLE OF CONTENT

LIST OF TABLE

LIST OF FIGURE

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

The rapid growth of investment in information technology (IT) by organizations worldwide has made user acceptance an increasingly critical technology implementation and management issue. While such acceptance has received fairly extensive attention from previous research additional effort are need to examine or validate existing research results, particularly those involving different technologies, user populations, and organizational contexts.

In recent years e-medicine activities have seen large number successful applications in different disciplines in health care delivery that promise improved quality care and cost effectiveness (Kane and Sands, 1998). The convergence of information and telecommunication infrastructures around e-medicine systems is fostering a diversity of cost effective and mobile technologies that will have a powerful impact on the way different health care organizations are delivering health care to their patients and will reshape the future of health care delivery by utilizing new technologies (Sampson, 2000).

With technological advances in society comes a need for paralleling advances in the counseling profession. The expanse of the information superhighway has led to an almost overwhelming amount of information, which can lead to interesting dilemmas for physician. For example, on one hand, computers afford clients opportunities to gain information about a plethora of topics

The contents of the thesis is for internal user only

REFERENCES

American Counselor Association Website. (2003). The American Counseling Association's demographics. [On-line]. Available: http://www.counseling.org.

Association for Counselor Education and Supervision. (1999). Technical competencies for counselor education students: Recommended guidelines for program development. [On-line]. Available: http://www.chre.vt.edu/f-s/thohen/competencies.htm.

Bowman, R.L. & Bowman, V.E. (1998). Life on the electronic frontier: The application of technology to group work. *Journal for Specialists in Group Work*, pp. 23, 428-445.

Bremer, J. & Rauch, P. K. (1998). Children and computers: Risks and benefits. *Journal of the American Academy of Child Adolescent Psychiatry pp.* , 38, 559-560.

Brennan, P.., Moore, S.M., & Smyth, K.A. (1992). Alzheimer's disease caregivers' use of a computer network. *Western Journal of Nursing Research,* pp. 14, 662-673.

Buchanan, T. & Smith, J. (1999). Using the internet for psychological research: Personality testing on the World Wide Web. *British Journal of Psychology*, pp. 90, 125-144.

Burman, E. (1996). The crisis in modern psychology and how to find it. *South African Journal of Psychology*, pp. 26, 135-142.

Campbell, D.T. & Stanley, J.C. (1996). *Experimental and Quasi-experimental Design for Research..* Dallas: Rand McNally.

Casey, J.A. (1995). Developmental issues for school counselors using technology. *Elementary School Guidance & Counseling*, pp 39, 26-34.

Chandras, K.V. (2000). Technology-enhanced counselor training: Essential technical Competencies. *Journal of Instructional Psychology*, 27, 226-227.

D'Andrea, M. (1995). Using computer technology to promote multi-cultural awareness among elementary school-age students. *Elementary School Guidance & Counseling*, 30, 45-52.

Dickerson, V.C. (2001). 5 ways to use the internet in your practice. *Psychotherapy Networker,* March/April, 35. 79 .

Duffy, M.E. (2002). Methodological issues in web-based research. *Journal of Nursing Scholarship*, 34, 83-88.

Finn, J. (1995). *Computer-based self help groups: A new resource to supplement support groups. In M.J. Galinsky & J.H. Scopler (Eds.), Support Groups: Current Perspectives on Theory and Practice.* Binghamton, NY: Haworth Press.

Frankel, M., & Siang, S. (1999). Ethical and legal aspects of human subjects research on the Internet. [On-line]. Available: http://www.aaas.org/spp/dspp/ projects/intres/main/htm.

Giri, J., (2003). Technology Transfer in Developing Countries: A Telemedicine Framework for an Assessment of Healthcare Needs and Proper Technologies, WFIS Conference.

Gore, P.A., Leuwerke, W.C., & Krumboltz, J.D. (2002). Technologically enriched and boundaryless lives: Time for a paradigm upgrade. *The Counseling Psychologist*, 30, 847-857.

Granello, P.F. (2000). Historical context: The relationship of computer technologies and counseling. ERIC publication.

Greene, R.T. (2000). Computers and Families. Electronic Theses and Dissertations of Virginia Polytechnic Institute and State University. [On-line]. Available: http//:www.lib.vt.edu.

Guterman, J.T. & Kirk, M.A. (1999). Mental health counselors and the internet. *Journal of Mental Health Counseling,* 21, 309-325.

Harris, S.M. & Dersch, C.A. (2000). Conducting research on the internet: Potential concerns and reflections. [On-line]. Available: www.ovid.net.

Harrison, T.M. & Stephen, T. (1996). *Computer networking and scholarly communication in the twenty-first century.* NY: State University of New York Press.

Hartman, K.E. (1998). Guidelines for a technology component to the DeWitt Wallace school counseling project. Washington, D.C.: The Education Trust.

Hohenshil, T.H. (2000). High tech counseling. *Journal of Counseling & Development*, 78, 365-368.

Hughes, R., Ebata, A. T., & Dollahite, D.C. (1999). Family life in the information age. Family Relations, 48, 5-6.

Istepanian, R., (1999). *Special T-ITB Issue on Mobile Telemedicine and Telehealth Systems.* London: Prentice Hall.

Jencius, M. & Sager, D.E. (2001). The practice of marriage and family counseling in cyberspace. *The Family Journal: Counseling and Therapy for Couples and Families*, 9, 295-301.

Jerome, L. & Zaylor, C. (2000). Cyberspace: Creating a therapeutic environment for telehealth applications. *Professional Psychology: Research and Practice*, 31, 478-483.

Kane, B. & Sands, D.Z. (1998). Guidelines for the clinical use of electronic mail with patients. Journal of the American Medical Informatics Association, 5, 104-111.

Kraut, R., Patterson, M., Lundmark, V., Kiesler, S., Mukophadhyay, T., & Sherlis, W. (1998). Internet paradox: A social technology that reduces societal involvement and psychological well-being. *American Psychologist,* 53, 1018-1031.

Khoei, A.T, & Khoei M. T. (2004). *Negotiable e-medicine systems*. London: Prentice Hall.

Kun. L., G. (2001). Telehealth and the global health network in the 21st century. From homecare to public health informatics. *Computer Methods and Programms in Biomedicine,* Issue 64, pp. 155–167.

Lambert, M. (1998). Computers in counselor education: Four years after a special issue. *Counselor Education and Supervision*, 28, 100-109.

Maheu, M. (1999). Healthcare information portability accountability act resource listing for professionals. [On-line]. Available: http://telehealth.net/articles.hipaa.html.

Maheu, M.M. & Gordon, B.L. (2002). Counseling and therapy on the internet. *Professional Psychology: Research and Practice*, 31, 484-489.

Michalak, E.E. & Szabo, A. (1998). Guidelines for internet research: An update. [on- line]. Available: http://gateway1.ovid.com/ovidweb.cgi.

Miller, J.K. & Gergen, K.J. (1998). Life on the line: The therapeutic potentials of computer-mediated conversation. Journal of Marital and Family Therapy, 24, 189-202.

Munger, A., Stoddard, G.J., Wenner, A.A., Bachman, J.W. (2008). Safety of Prescribing PDE-5 Inhibitors via E-Medicine vs. Traditional Medicine. *Mayo Clin Proc*, 83 (8), 890-896.

Murphy, L.J. & Mitchell, D.L. (1998). When writing helps to heal: E-mail as therapy. *British Journal of Guidance & Counseling*, 26, 21-32.

Myrick, R.D. & Sabella, R.A. (1995). Cyberspace: New place for counselor supervision. *Elementary School Guidance & Counseling,* 30, 35-44.

Nickelson, D. (1998). Telehealth and the evolving health care system: Strategic opportunities for professional psychology. *Professional Psychology: Research and Practice,* 29, 527-535.

Owen, D.W. & Weikel, W.J. (1999). Computer utilization by school counselors. *Professional School Counseling*, 2, 179-182.

Petska, K. (1999). North America is the leading region for internet users according to the computer industry almanac. [On-line]. Available: http://www.c-i-a.com/199908iu.htm.

Rainie, L. & Kobut, A. (2000). Tracking online life: How women use the internet to cultivate relationships with family and friends. The Pew Internet & American Life Project. [Online] Available www.pewinternet.org [2000, May 10].

Reimer-Reiss, M.L. (2000). Utilizing distance technology for mental health counseling. Journal of Mental Health Counseling, 22, 189-203.

Sampson, J.P. (2000). Using the internet to enhance testing in counseling. *Journal of Counseling & Development*, 78, 348-356.

Sampson, J.P., Kolodinsky, R.W., & Greeno, B.P. (1997). Counseling on the information superhighway: Future possibilities and potential problems. *Journal of Counseling & Development*, 75, 203-212.

Stone, J.H. (2007). Communication between Physicians and Patients in the Era of E-Medicine. *Massachusetts Medical Society, 24,* 356.

Stuart Barnes & Brian Hunt. (2001). *E-Commerce and V-Business*. Butterworth: Heinemann.

Suleiman. A.B. (2001). The untapped potential of tele health. *International Journal of Medical Informatics*, Issue 61, pp. 103–112.

Smyth, K.A. & Harris, P.B. (1993). Using telecomputing to provide information and support to caregivers of persons with dementia, to caregivers of persons with dementia, Gerontologist, 33, 123-127.

Sturges, J.W. (1998). Practical use of technology in professional practice. Professional Psychology: Research and Practice, 29, 183-188.

Swoboda, W. J., Muhlberger, N., Weitkunat, R. & Schneeweiss, S. (1997). Internet surveys by direct mailing: An innovative way of collecting data. Social Science Computer Review, 15, 242-255.

Teleheleth discussion paper, American Academy of Family Physicians, 2004

Tony Blair, UK Prime Minister, Financial Times, 1999

Venkatesh, A. & Vitalari, N. (1985). Home computers and family empowerment. Marriage and Family Review, 8, 71-88.

Venkatesh, A. & Vitalari, N. (1987). A post-adoption analysis of computing in the home. Journal of Economic Psychology, 8, 1961-1980.

Wakefield, R. A., (1985). Computers, family empowerment, and the psychotherapist: Conceptual overview and outlook. *Journal of Psychotherapy and the Family*, 1, 9-20.

Watt, D. & White, J.M. (2000). Computers and the family life: A family development perspective. Journal of Comparative Family Studies, 30, 15-26.

Watt, J. (1997). Using the internet for quantitative survey research. [On-line]. Available http://www.quirks.com/articles/article_print.asp?arg_articleid=248.

Weinberg, N., Uken, J., Schmale, J., & Adamek, M. (1995). Computer-mediated support groups. Social Work with Groups, 17, 43-54.

White, J.A., Carey, L.M., & Dailey, K.A. (2001). Web-based instrumentation in educational survey research. WebNet Journal, 46-50. 83.