

“Can you see what I am saying?”

An action-research, mixed methods
evaluation of telepsychology in rural
Western Australia

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requirements for the degree of Doctor of
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I declare that this thesis is my own account of my research and contains as its main content, work which has not previously been submitted for a degree at any tertiary education institution.

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ABSTRACT

Rural communities have been recognised as uniquely challenging environments for mental health care delivery. Telepsychology, or clinical psychology services delivered via videoconferencing, may be one response to overcoming the obstacles of regional and remote health care delivery. However, despite telepsychology's widespread appeal and existing infrastructure, few services appear to provide telepsychology as a routine service component for psychotherapeutic exchanges. The thesis' primary research goal was to explore and explain the disconnect between research and practice in this field. Five major research questions were raised: 1) Is telepsychology effective?; 2) How do you effectively research a complex health interaction like telepsychology?; 3) How do you make telepsychology research clinically meaningful and user friendly for practitioners?; 4) If telepsychology is so good, why don't clinicians use it more?; 5) When they do use telepsychology, how does it change the clinician's usual practice or the client's behaviour?

To answer these questions a non-traditional, mixed method approach was chosen in preference to a more traditional, experimental, or mono-method, quantitative one, because it includes a focus on micro-processes which may reveal the causes or maintaining factors in the disconnect between research and practice. This thesis also uniquely draws together data from multiple clinically relevant sources: the research and clinical literature; expert telepsychology clinicians; mental health clients in rural locations; and a practitioner-researcher who has expertise as a clinician in the field of rural mental health. Taken together, this rich

dataset illuminates the potential for psychotherapy by video in rural and remote Australia and provides a conceptual, clinical and practical framework for fulfilling this potential. It makes explicit the challenges and gaps in knowledge about telepsychology but also, unexpectedly, through micro-analysis of the telepsychology process, illuminates the fundamental active ingredients of the psychotherapeutic process more broadly.

The component studies of this thesis fill several research gaps by 1) comprehensively synthesising the available knowledge of tele-mental health via videoconferencing as a whole, clarifying what is known, and what remains unknown, about telepsychology; 2) providing a mixed methods approach to evaluating the human dimensions of implementation of a clinical telepsychology service (indeed any psychotherapeutic service) under naturalistic conditions; 3) identifying the unique conditions or phenomena in telepsychology interactions that influence both therapeutic process and outcome, at the largest (across-subjects data) and smallest (the communication dyad) units of analysis; 4) implementing and evaluating a trial of telepsychology in a depressed community sample; and 5) triangulating the findings into meaningful, clinical practice based recommendations and conclusions.

This thesis is the first research to apply a mixed-method, integrative, sequentially-triangulated research design to an investigation of telepsychology. Despite the implicit complexity of telepsychology as a healthcare system, the current research contributes in an original way by describing whole-field methodological trends, providing a comprehensive integrative review of findings, and evaluating an applied implementation of

the findings, from a unique researcher-participant perspective. This contribution is of pragmatic and intellectual value to the field, and offers a unique review of the practices and specific changes to therapeutic techniques and approaches from expert consumers of telepsychology.

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Richardson, L. K., Frueh, B. C., Grubaugh, A. L., Egede, L., & Elhai, J. D. (2009). Current directions in videoconferencing tele-mental health research. *Clinical Psychology Science & Practice, 16*, 323-338.

Appendix B: Published research related to the PhD Thesis : Egede, L. E., Frueh., C. B., Richardson., L. K., Acierno., R., Mauldin., P. D., Knapp., R. G., et al. (2009). Rationale and design: telepsychology service delivery for depressed elderly veterans. *Trials 10*, 22-36.

Appendix C: Omnibus table of intervention studies assessing reliability, satisfaction, clinical outcomes and cost of telepsychiatry/telepsychology with children and adolescents as subjects.

Appendix D: Omnibus table of intervention studies assessing reliability, satisfaction, clinical outcomes and cost of telepsychiatry/telepsychology with the elderly as subjects.

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PREFACE

There is a tradition of narrative framing in hermeneutic qualitative research which is to “bracket”, at the outset, the early or preliminary observations of the researcher, and make explicit their general expectations, perceptions, experience and background, for the express purpose of acknowledging the selective bias inherent in humanistic enquiry (Cresswell, 1998; Pontoretto, 2005;126). This particular section honours such a tradition.

The primary research question of this thesis developed from my observation about psychological practice. More specifically, I noted an absence of a particular psychological practice, namely telepsychology, when outwardly, the prevailing circumstances seemed particularly conducive to it.

In 2004, through frequent personal communications with mental health consumers and workers in the rural regions of the South West of Western Australia (WA), the provision of clinical psychology services was identified as a significant unmet need. In these particular areas at that time, services were limited in availability, had narrow avenues of access, or were financially prohibitive for most public health service consumers. In response to these not unreasonable requests for best practice mental health interventions, I began exploring possible solutions. A technological network of videoconferencing facilities was identified to be already linking rural mental health clinics with other rural clinics, their regional hubs and the state’s capital city, Perth. A preliminary literature review suggested that the international evidence base in support of the use of

videoconferencing technology in mental health (also known as “telepsychology” and “telepsychiatry”) had been steadily growing over the previous 45 years. At first glance, it appeared that Western Australia’s mental health system was following an international trend which recommended telepsychiatry/telepsychology as a cost effective treatment option for rural mental health clients.

However, further investigation revealed that while the videoconferencing equipment and transmission services were budgeted into the running costs of the many rural mental health clinics in the South West of WA, less than 40% of the hours already paid for were being used by the mental health staff, and none of the available hours were being used for direct client contact; i.e. psycho-therapy between clinician and consumer. Transmission hours that were being used included case conferencing, collegial supervision and administrative tasks between mental health workers and administrators. What was striking about this situation was that despite the obvious financial investment and the growing evidence base for the use of telepsychology, practitioners appeared ambivalent, and possibly even antagonistic, toward using telepsychology for direct client services. Unravelling why telepsychology appeared so strongly endorsed in the literature yet did not seem to be used “on the ground”, seemed to me to be a compelling research question to be answered.

When a proposal to trial a telepsychology service was made to the regional mental health clinic staff, they recognised the potential of this solution for their underserved mental health clients. However, they were

unsure about whether such a proposal would be successful, given it appeared untried in WA public mental health clinics, and were reluctant to participate in research. They were concerned that the research demands might compromise the service to their clients; i.e. prioritising methodology over real-world need. They also worried that the project might require an additional workload for them to implement the necessary assessment and evaluation during the trial. Finally, they indicated that they wanted the service to accommodate the complexity of their client group's therapeutic needs, not a service that prioritised stringent diagnostic or other research criteria.

To further explicate the hermeneutic bracketing of this thesis, and my role as participant/researcher within it, I shall now describe my background. I am a Doctoral level, Clinical Psychologist with 13 years experience providing direct psychological intervention to children, adults and older adult clientele in Western Australia. Trained within a scientist-practitioner model, I have been employed in the public and private sector in clinical psychology, program evaluation and research positions. Given my extensive work experience with incarcerated populations, rural psychiatric triage, rural emergency management and clinical intervention with the elderly, my research interest in the area of telepsychology was spawned from a personal recognition that workforce and service alternatives were needed for those clients who did not have easy access to clinical psychology, and in particular, rural and remote clients. My personal agenda was to identify a low-cost strategy to reduce the shortfall

of Psychologists which appeared to be impacting upon the rural and regional mental health clients I encountered every day at work.

Consequently, a research project that aimed to integrate and honour both science and practice need was formulated. In order to respond to a real-world problem with externally imposed real world constraints, an exploratory, reflective stance to both research and practice was indicated. In order to secure the support of mental health providers, and also to meet the dual obligations of clinical accountability and high quality research, a methodologically rigorous approach that accommodated emergent research questions and ethically responsive, timely, practice changes was developed. Finally, presented in this thesis, a research investigation was completed where clients received a much needed, quality psychological service, while meaningful research outcomes of both a formative and summative nature contributed to the unfolding continuum of research in telepsychology. Specifically, this thesis has been designed to address the question “can telepsychology be successfully implemented in the Australian rural and remote context?”

(i) *Summary outline of the chapters of the thesis.*

This preface at the beginning of the thesis provides the necessary bracketing of the research studies to follow, by locating them in the realms of real-world necessity. It introduces the primacy of methodological decision making as a key component of the thesis due to the dual ambitions of ethical and pragmatic service provision and methodologically rigorous research.

Chapter 1 locates the primary research question, namely “can telepsychology be successfully implemented?” in the relevant contexts of Australian rural mental health and videoconferencing technology. Specifically, it describes the necessary technological and experiential issues surrounding the application of telepsychology to health in Western Australia. Chapter 2 considers and critiques the pre-existing telepsychology research and presents the findings in a literature review. This broad, integrative literature review includes a table of all experimental studies reported in the scientific literature to date. The accompanying text is an extensive, though not comprehensive, review of the entire field of telepsychology (i.e. child telepsychology and geropsychology are discussed only briefly), but it does emphasise those studies of particular relevance to this thesis as a whole.

Chapter 3 is a discussion of the methodological approach which developed iteratively to best respond to the identified gaps in the literature and the emergent research questions which were revealed with each study. This chapter describes the methods and approaches which informed the research design, and discusses why traditional approaches were less desirable.

Chapter 4 describes the development, implementation and evaluation of a survey of expert users of telepsychology, such that recommendations for practice and an exploration of pitfalls could be compared with the literature.

Chapter 5 describes a study of the recorded session transcripts from a subsample of participants in a large scale, randomised controlled

trial of telepsychology for depressed adults. By analysing the sessions from unknown therapists and clients, thematic analysis was perceived to provide a potentially objective opportunity for identifying pertinent practice and outcome issues, and corroborate the conclusions drawn in the telepsychology literature and from expert survey respondents.

Chapter 6 details the methodology for the telepsychology direct intervention study which emphasised the practitioner-researcher stance.

Chapters 7 and 8 present the detailed results from two examples of the multiple, time-series case studies (i.e. the intervention study). These case-studies describe the process and outcome of telepsychology for two of the seven depressed, community-based, adult research participants over the 12 month intervention period. Due to their level of detail, only two cases are included in the thesis proper. Two additional, fully detailed case-studies are included in Appendices H and I.

In addition to summative outcomes of quantitative measures of symptom change, therapeutic alliance and attendance, formative outcomes are also described in the case-studies as in-session issues and alliance changes, and are detailed in Chapter 7 and 8, as well as in the case-studies in the appendices. All of these outcomes are further analysed with particular attention directed to the impact of the telepsychology technology and encounter experience. This analysis maintains the research output focus on the specific practice gaps within the telepsychology literature.

Due to the significant depth and breadth of the separate case studies, Chapter 9 summarises the findings from all seven intervention

participants (case-studies). In this chapter, specific attention is given to the process challenges and successes within the sessions, and the impact of technology on the provision of a typical psychological intervention for depression.

The final chapter, Chapter 10, details the discussion and conclusions of the research overall, including future directions for the telepsychology field and for practitioner driven research.