

Biomedical Information Sharing by
Medical Family Therapists

A Dissertation
SUBMITTED TO THE FACULTY OF THE
UNIVERSITY OF MINNESOTA
BY

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IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

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August 2016

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Acknowledgments

In Western culture, we tend to believe that we accomplish things independently. That is a false premise, whether it be about raising a child or creating a dissertation. It took a whole village (actually, several) to accomplish this research effort that appears under my name. I would like to acknowledge some of those people who had a hand in it. Without them, this work never would have existed:

My advisers, Drs. Bill Doherty and Tai Mendenhall.

My committee (past and present), Drs. James Maddock, Jan McCulloch, Elizabeth Wieling, Jennifer Hodgson, and Catherine Solheim (who kindly stepped in as chairperson at the last moment).

The faculty and staff of the Department of Family Social Science, University of Minnesota, especially Dr. Wayne Caron.

My fellow students, in particular Drs. Chris Gonzalez, Jane Newell, Johnben Loy, Holli Kelly-Trombley, Sam Zaid, Di Samek, Paul Orieny, and Anna Bohlinger.

My predoctoral fellowship supervisors, Drs. John Rolland and Steve Zuckerman.

Dr. Kenneth Phelps, who donated his time to allow me to test drive my interview with him.

Dr. David Wark, who helped me through this process.

The participants of this study, who cleared their incredibly busy schedules to graciously assist my research (and who deeply impacted my clinical philosophy and expertise with their wisdom).

My friends, in particular those of the Twin Cities and Facebook communities.

My family, especially my brother Ray Kelleher and his partner Shannon Nelson-Deighan, my brother Matt Kelleher and my sister-at-heart Kathy Kelleher, my mother Dee Kelleher, my aunt Mary Garrahan, and (most especially) my daughters, Julie Baroh and Robyn Baroh, and their husbands, Ben Shy and Darrell Aucutt.

Thank you, all.

Dedication

This work is dedicated to Bill Doherty and Tai Mendenhall, not only for the extraordinary work they did in mentoring during the process of my doctoral education, but for the ongoing examples of compassion and generosity of mind and spirit they personified, even through difficult times. Thank you more than I can say.

This work (and all that will follow it) is also dedicated to Avery David Aucutt, whose presence in my life is a tangible reminder of the need to continue striving to improve the quality of our world.

Abstract

The manner in which Medical Family Therapists (MedFTs) share patients' *biomedical information* during collaboration with physicians has not been described in the research literature. The qualitative study presented here was designed to address this gap. Narratives of MedFT biomedical information sharing were gathered from 12 pioneers and leaders in the field using semi-structured interviews based on Elite Interviewing techniques. Thematic analysis was performed on the data using a Framework Analysis technique. A typology of biomedical information commonly shared by the elite participants is described. A 5-point recursive process to share biomedical information was developed based on the cumulative wisdom of the elite participants. The sharing of biomedical information is found to have developed reflexively by the participants in response to the demands and pressures of the healthcare environment. Key factors contributing to successful information sharing include the existence of professional and personal relationships between healthcare collaborators, and the relational skills of the MedFT to successfully communicate with the healthcare team. It is concluded that the successful development of the biomedical information sharing practice is related to the family systems orientation and training of these field pioneers. Implications for future research in collaborative communication and MedFT training are discussed.

Key words: biomedical information, collaborative communication, elite interviewing, framework analysis, Medical Family Therapy, practice development, qualitative research

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Collaborative healthcare delivery shows promise for improving elements of patient health outcomes, health care experiences, and the reduction of healthcare costs (Peek, Cohen, & deGruy, 2014). Essential to its practice is the ability to concisely and fully communicate between collaborative healthcare partners *all* essential information (whether biomedical or psychosocial) regarding patients and their families (Institute of Medicine, 2013; Robiner, Dixon, Miner & Hong, 2014). However, communication across disciplinary boundaries can be fraught with problems as providers struggle to negotiate and overcome professional cultures and hierarchies (Mackintosh & Sandall, 2010). Medical Family Therapists (MedFTs) have been at the forefront of the practice of collaborative medicine's evolution (McDaniel, Doherty & Hepworth, 2014; Tyndall, Hodgson, Lamson, White & Knight, 2012). Influenced by the biopsychosocial-spiritual (BPSS) framework of George Engel (1977) and Lorraine Wright (1996), their expertise in functioning within complex interacting systems has uniquely equipped them to excel in integrated care delivery; this includes the practice of collaborative communication with medical providers. While many aspects of MedFT/healthcare provider communication have been documented, studied, and discussed (e.g., Bischoff, Springer, Riesbig, Lyons & Likcani, 2012; Edwards & Patterson, 2006; Marlowe & Hodgson, 2014; Marlowe, Hodgson, Lamson, White & Irons, 2012; McDaniel, Hepworth & Doherty, 1994; Tyndall, et al., 2012), one common practice has not: the sharing of biomedical information by MedFTs with medical collaborators.

Information Sharing in MedFT Collaborative Communication

An extensive literature review was conducted by the author regarding the topic of sharing biomedical information by MedFTs. While multiple discussions on many aspects of collaborative communication appeared in the literature, discussions specific to sharing biomedical information were limited. Topics encompassed such issues as the use of specialized medical terminology, physician expectations about *how* information should be conveyed (i.e., concisely and quickly), and physician-preferred modes of communication (e.g., letters, phone calls, emails, curbside consultations, electronic medical record (EMR) notes; Bischoff, et al., 2012; Edwards & Patterson, 2006; Marlowe & Hodgson, 2014; Marlowe, et al., 2012; McDaniel et al., 1994; Tyndall et al., 2012). If the type of information was specified, it was identified as psychosocial – and often accompanied by warnings to avoid the use of mental health jargon with physicians (Bischoff et al., 2012). Exceptions to this trend in the MedFT literature to focus solely on psychosocial information communication were found in the second edition of a seminal text on Medical Family Therapy (McDaniel et al., 2014). McDaniel and her coauthors discussed the importance of tracking medication and treatment adherence, as well as how patients may present medical and psychosocial complaints indiscriminately to the MedFT or biomedical provider; these discussions were absent in their first edition.

Finally, biomedical information sharing was briefly described in publications directed to general competencies in collaborative family healthcare by Patterson, Edwards, and associates (Edwards & Patterson, 2006; Patterson, Albala, McCahill, & Edwards, 2009; Patterson, Peek, Heinrich, Bischoff, & Scherger, 2002). Patterson et al. (2002) stated that because of the unique relationship that therapists have with patients,

they were “more likely to disclose information about their medications . . . [and] the therapist might relay this information to the physician” (p. 88). The authors further clarified how a therapist might handle such concerns with the patient while staying within his/her legal scope of practice, and encouraged therapists to consult with the collaborating physician directly regarding such issues. In later publications (Edwards & Patterson, 2006; Patterson et al., 2009), this issue was reiterated and enlarged in discussions about how intertwined biomedical and psychosocial problems become for the patient, which necessitates open communication with physician partners regarding all aspects of patient information.

While biomedical information sharing by MedFTs appears to routinely take place in clinical practice, it has not been documented by researchers. In a recent ethnographic study of MedFT trainees working with physicians in integrated primary care (Marlowe et al., 2012), only psychosocial information was reported as communicated to the physicians. However, the lead author confirmed that medical information was frequently shared via hallway consults by MedFTs, but this information was not included in the study results (D. P. Marlowe, personal communication, May 15, 2014).

To address these gaps in the Medical Family Therapy literature, an exploratory study was undertaken to: (1) understand how the practice of biomedical information sharing by MedFTs developed in the early period of the field; (2) what factors contributed to the practice development; (3) what types of biomedical information were routinely shared by MedFTs; (4) the process(es) that were used to accomplish biomedical information sharing; and (5) outcomes that were observed.

Method

This study was approved by University of Minnesota Institutional Review Board (IRB# 1408P53141). It sought to explore the experience of MedFTs sharing biomedical information with healthcare providers. Elite participants (i.e., senior clinicians who created, pioneered, or led the field of Medical Family Therapy) were recruited to share their personal stories and address the following questions:

- what types of information were routinely shared
- the process(es) that were used to share biomedical information
- how biomedical information sharing was developed as they transitioned from beginners to experts
- what factors contributed to biomedical information sharing
- what outcomes were observed when biomedical information was shared

Participants

Elite participants. *Elite participants* have been described as those having a particular expertise in a given area (Morris, 2009), often with an extensive awareness of the area and access to information or resources unavailable to others (Aberbach & Rockman, 2002). They are most often in positions of visibility and importance in their fields, and have experience, insight, and/or power that others do not have (Goldman & Swayze, 2012).

Working with this unique group of participants demands a non-standardized, strategic approach in recruitment, data collection, data interpretation, and publication known as *elite interviewing*. Elite interviewing was developed to address problems of

power and knowledge imbalance between the participant and researcher (Odendahl & Shaw, 2001). It is common practice to share control of the interview process and to submit pre-interview questions, interview summarizations, participants' quotes and/or analytical interpretations, and pre-publication manuscripts for approval by elite participants (Aberbach & Rockman, 2002) in return for access to their unique experience and expertise (Morris, 2009). For the purpose of this study, the above practices were followed; all elite participants agreed to participate and forego anonymity.

Human subjects protection. The research design for this study was reviewed by the University of Minnesota (Twin Cities) Institutional Review Board, and found not to meet the criteria for human subjects research in which participants must be protected.

Sampling. Participant recruitment criteria included self-identification as a MedFT, a minimum of seven years in clinical practice as an MedFT, experience including publications related to the practice of MedFT or collaborative healthcare *or* experience training MedFTs in an academic or professional institution *or* having held a leadership position in a national collaborative healthcare organization, and self-identification as having shared biomedical information with collaborating medical partners. Participants with concomitant medical or nursing training were excluded from the study because of previous instruction in communicating biomedical information with physicians.

A list of 13 potential elite participants meeting the recruitment criteria was formulated by the researcher and her co-advisors based on the participants' professional standing and experience in the MedFT field. Each potential participant was personally

invited to take part in the study by email, telephone, or a face-to-face conversation with the researcher, with follow up invitations by her co-advisers when appropriate. All potential participants agreed to take part in the study. One participant was excluded based on a history of medical training that was discovered during the interview process. As an incentive for participation, a \$50.00 donation was made to the Collaborative Family Healthcare Association's (CFHA) Student Volunteer and New Professional Scholarships Fund for each completed interview; participants chose to have the donation made in their names or anonymously.

The number of invited participants was based on the researcher's estimation of thematic saturation at 8-16 interviews using the criteria of Guest, Bounce, and Johnson (2006). Prior to the onset of formal data analysis, a theme-book was constructed based on the specific aims of the study. Interviews were analyzed in groups of four; emergent themes were monitored, defined, and added to the theme-book with each group to construct a cumulative audit trail. Thematic saturation was assumed to have been reached when the number of emergent themes for a group of four interviews was less than 10% of the previous total number of themes (Guest et al., 2006). Thematic saturation for this study was reached at eight interviews; however, because of the unique richness of the data acquired from the elite participants, all 12 interviews were included. See Table 1 for participants' names and demographic information.

Measurement. Elite participants have unique knowledge and insights that are best collected by using non-standardized interviewing techniques that focus on the participant's definition of the topic, and which encourage the participant to direct the

interview structure and topic relevancy (Dexter, 2006). The interview questions were minimal and open-ended, with probes to ensure that the main research questions were addressed within the freedom of the structure (see Appendix A). All participants had the opportunity to review the interview questions prior to the interview and were encouraged to expand on the questions or explore other areas of information that they felt were pertinent to the study goals (these were clarified by the researcher during recruitment and in a conversation prior to the start of the formal interview process). The process of interviewing was highly flexible, allowing for participants to take control and redirect the interview to capture their respective and specialized knowledge (Kezar, 2003). Follow-up questions via email were used to clarify or expand information when possible. Because of the use of non-standard elite interviewing techniques and issues of accessibility regarding follow up, no participant was able to answer all questions appearing on the interview guide.

Data collection. Data collection consisted of one or more semi-structured interviews per participant for a minimum total of approximately 60 minutes; the number and length of interviews were dictated by participant availability (the interview with Dr. Susan McDaniel being the exception, with 2 interviews totaling 30 minutes). All interviews were conducted by telephone and recorded for later transcription using a HIPAA-compliant commercial recording and transcribing service. Notes were also created by the interviewer during the interviews to supplement the transcripts. All transcripts were reviewed and corrected by the researcher through comparison with the recording. In the case of Dr. McDaniel's second interview, electronic transcription failed;

the interview was thereby reconstructed from the researcher's notes and edited by Dr. McDaniel.

Data Analysis

This study sought to explore and describe the development, process, typology, and results of medical information sharing as described by experienced MedFT practitioners. *Framework Analysis*, a branded form of thematic analysis, was used as the method of data analysis for the study based upon its ability to provide rich detail of major aspects of behavior in a manner that is time limited, concise, and rigorous (Guest, MacQueen, & Namey, 2012; Ritchie & Ormston, 2014; Spencer, Ritchie, O'Connor, Morrell, & Ormston, 2014). In Framework Analysis, thematized data are analyzed through the use of constructed matrices which have clear and transparent linkages to raw data, independent of the level of analysis. The matrices facilitate both within and between case searches for thematic categories, are sensitive to emergent themes, allow for graphic presentation of findings, and easily reconfigure for multiple analyses of themes at various levels of analysis.

Data management on the level of coding and sorting was accomplished initially through the use of a computer-assisted qualitative data analysis software program called NVivo. Computer-assisted data analysis is supported by the pragmatic paradigm upon which this research is methodologically and epistemologically based (Spencer et al., 2014). Microsoft Excel was used for data interpretation procedures of matrix construction, the building of analytical categories, and the creation of abstract concepts.

Data management. The following steps were followed through multiple iterations; the data corpus was reviewed throughout all steps.

1. *Familiarization and initial thematic framework.* The data corpus was reviewed, noting apparent themes and subthemes within and across interviews while referencing the study's specific aims and goals in the recognition of important themes.
2. *Theme-book.* A theme-book was constructed based on the themes and subthemes that appeared during the familiarization process; themes and subthemes were defined.
3. *Précis creation.* Two-page summaries of the interviews were created to capture the *gestalt* of each participant's personal narrative and primary opinions.
4. *Coding and sorting.* Coding was used to connect themes or subthemes with particular sections of raw data across and within participants.
5. *Reviewing data extracts.* Unindexed data were reanalyzed for missed themes, and all grouped data were reviewed over multiple iterations and re-indexed based upon emergent or discarded themes.
6. *Reexamining data corpus and theme-book.* All interviews were reexamined; themes, subthemes, and codes were compared to interviews and précis to ensure trustworthiness of the analysis process.
7. *Data summary.* Coded raw data were summarized. Summaries were linked to participant quotes and compared to the précis.

Data interpretation. The following steps were used to interpret the data:

1. *Data display.* Thematic matrices were constructed from the summaries (see Appendix B for illustration of matrix analysis).
2. *Categorization.* Themes and subthemes were grouped into higher levels of organization.
3. *Conceptualization.* The higher-level matrices were analyzed for patterns of abstract concepts that link multiple categories into conceptual patterns. Processes and typologies were identified. Each analytical step went through multiple iterations and comparisons to the interview précis; data management incurred six iterations and data interpretation incurred three iterations.

Trustworthiness. In qualitative research, the purpose for trustworthiness is that the reader may infer that the findings of the study are generalizable to a larger population. This is accomplished by creating rich, thick descriptions of phenomena from raw data through use of a method that directly connects to the data with a transparent, systematic, and documented path of research design and analysis (Guest, et al., 2012). Overall trustworthiness was accomplished through the documentation of all steps in the research process via memos, the creation of a transparent electronic paper trail, the development of the detailed theme-book, the use of participant quotes to support themes, and an external audit by one of the researcher's advisers at the completion of each of the main analytical stages. Précis were created to capture each participant's voice and major points from each interview (Ritchie & Ormston, 2014). The précises were reviewed and corrected by all participants and used as a reference and guide throughout the analysis; any corrections by the participants were applied to all levels of analysis. Results and

findings were also reviewed by each participant, with corrections as indicated by the participants.

Results

The majority of the participants (n = 9) indicated that they had never *explicitly considered* the issue of sharing biomedical information with physicians (“I haven't thought about it quite in this way until we're talking about it right now”; LBM), although it was acknowledged to be a common practice in their personal clinical practices, and has appeared as a topic of discussion during trainee supervision. Because sharing was implicit to most of the participants, there were few direct stories of sharing, that is, where the biomedical information sharing was the major feature of the story. Rather, information on sharing was primarily found embedded in participants' larger case histories, discussions of generic MedFT practices, and statements of collaborative philosophies.

The specific findings of this study will be presented as follows: first, types of shared biomedical information; second, the process of sharing biomedical information; third, participants' developmental narratives of sharing biomedical information with physicians; fourth, factors which contributed to the development of the sharing process; and fifth, observed outcomes from sharing biomedical information.

Types of Shared Biomedical Information

The types of biomedical information shared by the participants emerged in response to direct questions, narratives related to the process of the participant's sharing

experience, and discussions regarding trainee education. See Table 2 for a complete list of information types.

Medication issues. The type of information most mentioned by participants (n = 11) was medication issues. The participants mentioned the MedFT's unique opportunity within the healthcare team to gather information about patient medication use/abuse, compliance, and side effects on an ongoing basis for later delivery to the physician or other healthcare team members. As stated by Mr. Mauksch:

So certainly the biggest medical symptom (if you want to call that) that I've always been sensitive to and never been told not to examine or share, are the side effects, potential side effects of antidepressants or any kind of psychotropic medicines.

This was reiterated by Dr. Gunn:

I think I've seen people and asked them about what meds they're taking and are they taking them as prescribed. I see that as part of the role to inform their physician about whether they're taking it or not, and what the effects are. You know, having side effects and so forth. So I've always felt comfortable in reporting back about what I have learned about patients when they're talking about taking their medications specifically.

Participants also engaged in or observed trainee discussions with medical providers regarding medication choice, efficacy, or other issues: "I would often, or pretty regularly, put in my two cents worth to broaden what I knew might be the physiological impacts of a medication, and how that might fit into what we're trying to do" (CGG).

Medical symptoms. Symptoms that may be emergent, previously unreported by the patient, or observed by the MedFT were discussed by five of the participants:

It was a new provider and they had only seen the patient once before. We went in and did the realm of assessment that we tend to do with patients at the beginning of their visit. And through our assessment, we have learned that this patient was getting up four times throughout the night to go the restroom. . . . And I became increasingly concerned about the way that that patient was talking about her eating patterns and her thirst and her frequent urination. And so after we kind of finished our part with that patient, I had gone to the MD and shared my concerns and wondered . . . if anybody has looked at her and tested her for diabetes previously. And the MD looked at me with very big eyes and said, “Oh my goodness, we haven’t.” (ALL)

Missed information. Six of the participants (RJB, CGG, SHM, ALL, JEP, and TSS) described sharing information other than medical symptoms that was missed by the medical practitioner in the course of the examination or history taking, such as hygiene, nutrition, sexual practices, or alternative treatments. It was observed by Dr. Grauf-Grounds that, “Whatever I observed in terms of the patient that I didn’t think was being punctuated by the doctor, that’s what I would do. And that can be a whole bunch of different things.”

Blurred biopsychosocial-spiritual issues. Issues that fell “between the bio and the psycho and social, and the social and the spiritual, and all that” (CGG) were

mentioned by three participants (CGG, JEP, TSS). These participants spoke of cases in which a patient was struggling with aspects of serious or terminal illness, and a mix of emotional or existential/spiritual issues and medical issues were confounding patient care, unbeknownst to the physician. In those cases, the participants were able to assess the complex issues involved, inform their healthcare collaborators, and assist in the co-creation of interventions.

Whatever I observed in terms of the patient that I didn't think was being punctuated by the doctor, that's what I would do. And that can be a whole bunch of different things. It could be the daughter ran away from home. It could have been they were losing weight. It could have been they're having stress at work. It could have been from all over the planet in terms of... because I think for a long time, I've always thought about people pretty holistically. So, one piece is going to affect another piece of people's lives. And so I would often share that. (CGG)

Other issues. Other types of information that were reported included *treatment noncompliance*, *treatment planning*, *patient concerns* regarding treatment issues, and the results of *metrics and tests* (e.g., patient-performed blood pressure readings or blood glucose levels).

Process of Sharing

The finding that emerged most strongly in the study was the essential factor of a positive professional relationship (see section on *Contributing Factors*). Like a ball game needing a baseball diamond, the process of sharing biomedical information takes place on

the field of relationship (see Figure 1). Without the field of a professional (and oftentimes personal) relationship between the collaborators, trust does not develop and the ability to share biomedical information may not take place successfully.

Five major steps emerged from the data which comprise a repetitive cycle that promotes the successful communication of patient issues and strengthens collaborative relationship. While the first two steps may be seen as generic to all successful collaborative conversations, they act to set the stage for the unique actions comprising the following steps. The successful completion of each cycle readies the collaborating partners for the next round of interaction. Each step in the cycle consists of multiple themes.

Meeting preparation. Meeting preparation begins at the point of *initial case collaboration*, when patient issues and physician concerns are identified. Initial discussions with the physician regarding the newly-shared patient establish the tenor of future collaborative conversations:

The first communication is often kind of on your way, I'm asking that but then I'm asking for more detail. And if that seems like a comfortable conversation, then I'll ask a broader question "Tell me what it's been like for you to work with them so I can kind of learn from you." And then I go ahead with that, and when they talk about them I'll say, "Okay that's very helpful; that confirms some of my early experience with them." (DBS)

Several of the participants (ALL, BJJ, DBS, TSS, and WBG) stressed the importance of *accommodating the physician's needs*, particularly physician limitations of

time, availability, and collaborative preferences. *Strategic planning* included planning for the result you wanted from the interaction (TSS), having a grasp on the medical issues beforehand (JBB), and seeing the conversation as an intervention (BAG).

Initiating conversation. An overarching theme throughout all aspects of the active conversation process (from initiation to conclusion) was that of a MedFT's stance of *curiosity*, often conveyed within the interview as that of using questions to respectfully convey information and suggestions to the collaborating provider. This skillful technique recognizes the collaborator's specific professional expertise, and is frequently used within the medical field to allow respectful crossing into another's professional territory within the context of collaboration (Conn et al., 2009; Foy et al., 2010). This theme spontaneously emerged in 10 of 12 interviews and was emphasized most by those with Marriage and Couple Therapy (MFT) backgrounds. As stated by Dr. McDaniel,

Phrasing it as a question allows the physician to feel ownership over the information. I find that the tentative approach is best, almost no matter who the consultee is. But it's easier with experience to be tentative and confident (rather than tentative and unsure of yourself).

Mr. Mauksch addressed the use of curiosity in teaching trainees to share information with physicians:

I think that there's been a barrier that's been variable from one intern to another across the continuum, a hesitancy to share that information or to inquire about it. But my stance with that has always been to approach the sharing of information from a curious standpoint rather than a dictatorial

perspective. So, in other words, this patient is not taking the medicine, I wonder if the doctor wants me to tell him about that? And my answer as a trainer is to say, “Probably . . . Why don't you find out if they're interested?”

A theme that emerged specific to initiating the conversation was *reinforcing the relationship* at the onset of the conversation (“Our patient . . .”; TSS). Participants also described *establishing professional limits* (“I realize this isn't my purview . . .”; TSS).

Presenting information. Biomedical information was presented with *conciseness and brevity*: “I think surely the brevity is important in recognizing of where a physician is” (WBG). Information was given one of two forms: the patient's own words (“So, I would say confidently, ‘Mary Louise says she's not taking the medicine, that makes her dizzy.’ That's just an observation of what the patient has told me”; BAG) or therapist observation, such as:

So it wasn't like I went in and said, “Oh this person obviously has symptoms of uncontrolled diabetes or probably diagnosed with diabetes. I did not go in with any kind of firm statement (“This is how it must be.”), but brought forward the collection of symptoms that I knew that could be concerning. (ALL)

While the majority of participants worked to acquire medical knowledge to enhance their ability to practice (and several mentioned attaining a level of medical sophistication based on their years in a collocated environment), participants were divided between those who believed that it was unnecessary to communicate in technical

medical language, and those who felt that understanding and mastery of technical language was important:

I can tell the medical provider exactly what the patient told me and not use this fancy biomedical language. I can do that and the medical provider will figure it out because that's the job of the medical provider. I think that's a lot of what they do, is that they translate whatever it is that somebody tells them into this other language that allows them to be able to do their work. (RJB)

Then there was a language that I learned to use and so that I could communicate effectively and in shorthand during team meetings, because the language is a way to have credibility. If I try to explain what I was observing in a way that was not of characteristic of the other team members, then it just kind of showed that I was green, and so I had to learn the language. (BJJ)

Problem solving. All participants described discussing treatment options in the course of biomedical information-sharing conversations and receiving positive responses from physicians; however, it was stressed that problem solving proceeded from a *one-down position* using tentative suggestions, questions, and speculative statements:

If there is something that I think I know about, like sort of a biomedical issue, from experience then I would just tell the physician. I'll say something like, "I had another patient with this and they tried that, and it

seems to be really helpful. I didn't know what you thought about that."

That's how I would say it. (JEP)

This was further elucidated:

Usually—I think most of the time—I would tend to make a comment. So I actually made a statement with an *and* which was a question to check out if I was on the right track and if they would collaborate with me on that kind of thing, like "So I'm thinking that that medication also is going to help with sleep, too. I think that's one of the qualities that that medication has." That kind of statement right there, "That's how you've been thinking about it too?" I wouldn't be initiating information. I wouldn't be asking the question myself. I would be contributing a statement with a follow-up that we're collaborating in the care. (CGG)

Concluding conversation. The final portion of the conversation was used to *strengthen the collaborative relationship*. Aspects of this theme varied, from inquiring what the MedFT can do to be of further assistance to the physician, or eliciting any physician impressions on ongoing psychosocial issues of the case, to reinforcing the concept of a co-created treatment plan: "Our way. We want to co-create our way" (CGG).

Several participants mentioned the need to use thanks or statements of appreciation to end the current conversation: "We need to say 'thank you so much; this was helpful'. We need to reinforce this" (SHM).

Participant Narratives

Participants reported few instances related exclusively to the development of biomedical information sharing in their developmental narratives. The following is an overview of their early experiences.

Demographics. Two of the participants (Drs. Hepworth and McDaniel) began working in family medicine (both in academic residencies) in 1981 (see Table 1), followed in 1982 by Mr. Mauksch in a non-academic family medicine private practice. Dr. Seaburn joined Dr. McDaniel in 1986, followed shortly by Dr. Gawinski in 1987. Dr. Gunn began work in a family medicine residency in 1986, and Dr. Jacobs began work clinically in a hospital rehabilitative medicine unit in 1987. The rest of the participants began MedFT work between 1993 and 1999, although Dr. Patterson reports that she began to orient herself conceptually to the field approximately 15 years before her first clinical experience in 1993.

While all participants defined themselves as originally trained as family therapists, three had terminal professional degrees in psychology, eight in family therapy, and one in sexology. Current professional licensures are LP (n = 3), LPC (n = 1), and LMFT (n = 10); two participants held LP and LMFT licenses (licensure information was taken from public records).

Preclinical experience. It was found that Drs. McDaniel and Patterson had spouses who are family medicine physicians and who actively contributed to their understanding of medicine, primary care, and medical culture; each identified their spouse as a key contributor and mentor in professional development. Mr. Mauksch's parents were employed in a family medicine department as a medical sociologist (father)

and nurse practitioner (mother); he was exposed early on to conversations in the home about the interface of medicine and psychosocial care. Dr. Grauf-Grounds reported childhood experiences of close family friends who were physicians. Dr. Lamson had experiences with medical personnel, including regular interactions with a physician with early onset Alzheimer's.

Several participants (ALL, BAG, BJJ, CGG, and TSS) had personal or family experiences with serious medical issues prior to clinical collaboration: in some cases (n = 3), the participants believed these experiences attracted them to Medical Family Therapy. Five participants reported that professional entry in collaborative medicine occurred by chance or expediency, rather than interest in the field.

Early development of sharing biomedical information. In the course of the interview, each participant was asked about their memories of developing and experiencing the sharing of biomedical information. While every participant reported sharing biomedical information as an integral part of their professional practice as MedFTs from the onset of their clinical work, none of the participants remember working to actively develop this collaborative behavior. Nor did any participant have memories of negative outcomes when sharing biomedical information with physicians.

What did emerge from the data which addressed the development process was how participants learned by doing (in particular, those who were active in the 1980s) and how they began to value the importance of biomedical information gathered from the patients. As stated by Dr. Seaburn, "In the beginning, there were no real practice models at all and we were pretty much making up everything as we went along."

Communication practices—including sharing biomedical information—emerged from the demand to adapt to the medical culture in which the participants were immersed. Practices were (1) developed quickly, (2) patterned after the communication process that was already in place within the medical environment, (3) driven by concern for patients' welfare, and (4) framed by systems thinking and a sense of team membership. As one of the earliest practitioners, Mr. Mauksch related the intense experience of entry into a small private Family Medicine practice with two physicians:

They [physicians] were throwing patients at me left and right and I had all of this access to their information. *And* they also gave me verbal information about the patient on a regular basis, because it was a small practice. There was this kind of open sharing. And so pretty early on, I got very interested in learning about the different diseases and how they interacted with the mental status and the emotional status of patients. And the impact of family. And during that time, of course, I'm realizing how important it is to think systemically. So, I think the learning about this [sharing biomedical information] was organic and the roots were in the curiosity of wanting to learn about the biomedical problems that were specific to my patients, and an awareness and a concern about the impact of medical illness on psychosocial status and health, and vice versa. And recognizing that I couldn't separate them out.

Dr. Seaburn described how he approached sharing biomedical information:

There were certainly some circumstances where I really wouldn't have talked to the patient [about confidentiality] so much at all. I would just let the doctor know. In those situations, I felt like I'm a part of the treatment team, it's become clear with the patient from the way we would talk in the beginning [that] the information is going to be shared back and forth in their care. I didn't feel encumbered. After a while you just feel like you're part of the treatment team, and this is part of what's going on, and I know they're not going to see the doctor for another month and I feel like they should know. (DBS)

Participants were queried about the existence of professional mentors who may have counseled them regarding collaborative communication and bridging professional cultures. Of the earliest Medical Family Therapy practitioners in the study, Drs. Hepworth and McDaniel identified each other and William Doherty, Ph.D., as "peer mentors" (SHM), whereas Mr. Mauksch was mentored by the family physician with whom he primarily collaborated (William Phillips, M.D., MPH). Dr. Sellers identified Mr. Mauksch as part of a small peer mentor group in the Seattle area. Dr. Patterson, who had an early interest (circa 1976) in the field but did not practice clinically until 1993, identified her husband (a family physician) as her primary mentor. Drs. Patterson and Grauf-Grounds and Mr. Mauksch were the only participants who were mentored by physicians, whereas all other participants who provided mentoring information were mentored by behavioral health providers. Dr. Lamson was mentored by another behavioral health professional.

Networking with other collaborative medicine pioneers (both behavioral health providers and physicians), conference attendance at forums held by the Collaborative Family Healthcare Association (CFHA) and the Society of Teachers of Family Medicine, and access to literature in the *Journal of Family Systems Medicine* (later called *Families, Systems, & Health*) emerged as an important part of the early development process: “So it was family therapy and then working in a medical setting and . . . it was traveling to conferences with Jeri and Bill and Susan when they were thinking about writing a book about this” (WBG). No participants could remember specific discussions regarding sharing biomedical information with colleagues that emerged from networking and conferences.

Training MedFTs. Every participant reported that the training of MedFTs has been an important outgrowth of their work in healthcare collaboration. Most participants who discussed training experiences (which did not take place in all interviews) indicated that issues regarding the sharing of biomedical information with physicians had been brought up during supervision.

Three participants (ALL, JEP, and LBM) reported proactively speaking to trainees regarding the importance of biomedical sharing:

So, I would say something like, “Try this with Dr. Neighbor. Tell him you just saw the patient and you realized that the patient is really only taking his hypertensive medicine when he feels stressed; he’s not taking it the rest of the time. So, you thought he might like to know that, and is there anything that you can do to help with that?” (LBM)

When the sharing of biomedical information came up in training, whether proactively or in response to case reports in supervision, several participants (n = 4) described using rehearsing or scripting of sample trainee/physician conversations:

Then I'd say, "But you know, there's nothing wrong with it [sharing biomedical information]. Here's what I want you know what I'm hearing around this." I'm never going to pretend to make a diagnosis. But sure, just share information, and then you also say, "Let me know how much if you want to hear from me." And invariably, the physician says "Oh, please, keep me posted, that will be great." (JH)

The importance of shadowing to establish provider relationships and prepare trainees for collaborative conversations (including those regarding biomedical information) was mentioned by several participants (n = 4): "How do you do this? Joint classes, shadowing each other (afternoon clinics and nights in hospital with residents). See a slew of patients with them. And then reverse it so they [physicians] watch MedFTs during the residents' psychiatric rotation" (SHM). Three participants (ALL, BJJ, and SHM) also commented on the importance of exposing trainees to interprofessional training opportunities early in their professional education:

This is not an original idea, but I think it's crucial for trainees in different disciplines to train together. I mean, I'm a really big believer in interprofessional training occurring as early in training as possible, before the professional identity becomes set. (BJJ)

Contributing Factors

Participant narratives and discussions on collaborative communication, case histories, and MedFT training and supervision were analyzed for conditions that may contribute to the development and practice of sharing biomedical information with healthcare collaborators (see Table 3). These are discussed below.

Collaborative relationship. The importance of the collaborators' relationship as the basis of healthcare collaboration and successful communication was universally stressed. In several interviews, the collaborative relationship became the core theme of the interview. Most participants (n = 10) defined it as a necessity for successful sharing. One participant said, "I think relationship is critical" (RJB). Another noted, "Relationship is the biggest issue" (JH). This was echoed by Dr. Sellers: "Of course the driving thing was it all comes down to relationship. . . . Communication is always only going to be as good as my relationship." It was further stated:

It's all in the context of a relationship. The focus has got to be on really developing the relationship. So often that's completely ignored, and psychosocial providers are plopped into medical settings and expected to develop a collaborative relationship and there're no efforts made. They're expected that to see patients and generate income, but no effort is made to develop a relationship, let alone talk about relatively subtle things like, "How do you want me to talk to you about biomedical issues?" So it takes time and it's based in a foundation of relationship, I think. (LBM)

Relationships should be built first, quickly and with all healthcare team members using the relational skills that are part of the MedFT's training.

The establishment of a relationship between collaborators resulted in a number of different benefits for collaborators related to sharing and communication. Several participants identified the establishment of a relationship as easing and expanding the ability to communicate. As stated by Dr. Jacobs, "And we built relationships, and then they gave me greater leeway to say whatever was on my mind." Dr. Seaburn indicated, "All the walls and the rules that separate you seem less daunting and more workable because you're looking at somebody and you think, 'I trust this person'." Establishing a relationship acted to buffer interactions between collaborators: "And if you build it in that way so that first comes the relationship, people are not going to get angry" (JH). Especially for the MedFT beginner, relationships humanized physicians: "I think it's to see that the other person is interested in the patient and being able to know who they are, not just the doctor, you know?" (WBG). They also mediated power differentials: "I see students having a hard time seeing the physician clearly, often because they're intimidated by what they see as the physician's power. Developing a relationship and getting to know them as people . . . helps a lot with this" (SHM). Other benefits included the increase of personal comfort as a collaborator and the promotion of empathy for the physician (CGG), greater patient trust in the healthcare team (DBS), and the experience of joy in collaboration (JEP).

Relationships were also established through the use of shadowing in early training; several participants (BJJ, CGG, and LBM) stressed its importance as a tool to

acquaint MedFTs to a particular clinical environment and to rapidly create relationships among providers.

Personal qualities. Certain personal qualities emerged during the analysis that were associated with the ability to share biomedical information with collaborating physicians and other members of the healthcare team; these qualities emerged from the data regarding participants' professional development narratives and discussions of supervising MedFT trainees. Of primary importance was *self-confidence*. The theme of self-confidence—especially the self-confidence necessary to tolerate not knowing and working without a clear template in the early years of the development of the profession—strongly emerged from participants' developmental narratives (n = 10):

I'm talking about honest self-reflection, recognizing that I do know things that other people don't know and so I have things to contribute and there are things I don't know. So it comes from a place not of "Oh golly geez, I don't know anything," because I did feel pretty good that I knew some things around what I had been doing in graduate school for six years. (JH)

This was echoed in the following statement:

Or maybe I was just so kind of overconfident that I didn't even think about it. . . . I just kind of forged ahead mostly. I mean there was certainly times that I was out of my depth. . . . But I mean, I think that I always believed and acted as if I had something to contribute. (BJJ)

While these early pioneers did struggle with confusion and fear as they maneuvered through uncharted waters ("And so there were some lack of confidence, you

know, with the language. . . . And so thinking that, well, if I was to share information, that I would come across as dumb.” RJB), many relied not only on confidence in themselves personally, but in their skills as relational experts and clinical observers. (This will be further elucidated in the next section, *MedFT Skills*.) The importance of fostering self-confidence in trainees was also stressed:

These things came up in supervision. And yet I think a lot of them had to do with personal growth of the trainee because the hesitancy was also reflected, that was also part of them feeling, “Gosh I don’t know if I’m good enough or they are going to think I’m silly or . . .” (JH)

Flexibility also emerged as an essential quality for many participants. Rigid definitions of professional roles and scopes of practice create barriers to successfully communicating all aspects of a patient’s health to the healthcare team. Several participants (JEP, RJB, SHM, and TSS) spoke to the importance of MedFT flexibility to accommodate the blurred role boundaries and scopes of practice that are hallmarks of collaborative medicine:

Scope of practice really is the crux of the matter. . . . And I think that by its very nature, collaboration blurs scope of practice boundaries, and I think in order to be successful in a collaborative relationship that you have to be okay with that blurring of scope of practice boundaries. And so this is another barrier. A barrier is being too rigid about the scope of practice. The point of this is that I think that we need to be, if we’re going to have a collaborative relationship, we have to be comfortable with the blurring of

the scope of practice boundary because necessarily, that happens. I'm not going to be dispensing medication, you know. I'm not going to be doing things that . . . my license doesn't allow me to do that. But I should be able to look at kind of what that scope of practice is. We have other areas scope of practices, you know, we do this all time. (RJB)

Empathy and empathy-based *equanimity* were apparent as key qualities both present in early pioneers and encouraged in the trainees of these participants: “[Trainees should] focus on how much intimidation and fear physicians have because they don't have the training and the comfort in the skills that we do” (LBM). Other personal qualities also mentioned as important for collaborative sharing included *enjoyment of teamwork* (“I always would find the opportunity to work on a team would be some of the most fun professionally”; BJJ), *cultural humility* (“We can see those multiple levels and have cultural humility”; ALL), and *devotion to patient welfare* (“If it's in the best interest of the patient I'm going to figure out a way to do it”; TSS).

MedFT skills. It emerged from the data that the ability to succeed as a MedFT in communicating successfully with physicians rested on two primary skill sets: *relational* and *observational*. Most participants (n = 11) described the use of relational skills as necessary (generically) in the establishment of basic collaborative relationships and (specifically) in the navigation of the process of sharing biomedical information. MedFTs were recognized as experts in relationships, those whose skills and training prepared them to facilitate the relational process necessary for successful functioning in the clinical environment: “We are relationship experts. And so I do think that is *the* key or at least if

not *the* key then it's the most essential key to what we do as Medical Family Therapists is that we are relationship experts" (ALL).

Of equal importance is the ability to skillfully observe. The heart of what is shared from MedFT to medical provider are the observations made of the patient. It is the sequence of observing and sharing that is key to MedFT work and impacts patient outcomes:

I think that the spirit of rehab was that everybody was helping, all team members were, although everybody has their turf and people could get pretty territorial, but there was also this idea that people were observing patients over the course of the day and sharing information with one another. (BJJ)

MedFT knowledge and training. All participants had background knowledge and experience of family therapy, and all sought to understand medical language, conditions, and culture as they learned how to collaborate in a medical setting. However, several types of specialized knowledge necessary for sharing information emerged from the data. These included the understanding of the *diffused nature of patient information* (n = 7), that important biomedical information may not be easily accessible to physicians, or may be revealed to other members of the healthcare team (including the MedFT), or shared by individuals with whom the physician has no contact:

Part of the issue was, for me anyway, getting past assumptions that I had made about . . . what biomedical information they [physicians] had and didn't have. And so I entered this by thinking well, of course the medical

provider has all of the biomedical information that they might need, and so anything that I have to say is just going to duplicate what they already have. And that was a false assumption I came to recognize. (RJB)

Participants (n = 5) also indicated that a MedFT's knowledge that there is a *continuum of interest* in collaboration by medical providers increased the rate of success for sharing: "I would say there were some people who just didn't seem interested or just didn't really care what I had to say, you know, so I didn't spend a lot of time with them" (WBG). Six participants discussed how understanding that the *shared concern* of patient welfare among healthcare professionals eased anxiety around communication and helped establish relationships:

I think what was true of so many of the physicians that I have loved working with is that they had a true heart. They were really healers. . . . I think those two qualities then make it very easy to make a relationship if you are that way as well because you are joined around serving the patients, and you don't lose yourself and don't get threatened because you are clear about who you are and who they are and you have that shared mission together. (TSS)

Other themes that emerged included the importance of a *BPSS framework* for increasing likelihood of sharing by MedFTs ("Is it that your paradigm is biopsychosocial, and you aren't speaking to the bio part of it?"; SHM) and the importance of early experience of *interprofessional training*. Drs. McDaniel and Jacobs—both formally educated as psychologists—experienced such training as graduate students ("I think that

the nature of training that I received at Hahnemann was interdisciplinary”; BJJ), and they and other participants identified interprofessional training or other interprofessional experience as helpful in preparing trainees to work collaboratively and engage in comfortable conversation with physicians.

Collaborative environment. As expected, the collaborative environment contributed strongly to the success of the MedFT information sharing, both in participant narratives and discussions of trainee issues. Many of the participants stressed that it is easier to share when the MedFT is *co-located*; participants spoke of the ease of establishing relationships, having access, and reading the emotional temperature of the collaborator. As stated by Dr. Seaburn, sharing is a normal part of the day with co-located clinicians. And indeed, all of the participants have been co-located in medical residencies or private practices during their professional lives.

Most participants (n = 8) identified the importance of the *healthcare team* as a part of their success in developing the phenomenon of sharing: “You’re a member of the team—no problem. You can share your concerns” (JH). The positive impact on clinical role definition through membership in the healthcare team was also described by Dr. Seaburn when describing his early experience:

We really believed we were part of the treatment team. . . . On the professional side, they [medicine] had the model. They worked in teams in primary care or hospital medicine or wherever. That helped a lot. That made it very easy for me to talk to physicians about their patients, whether it was about medical issues or mental health issues. (DBS)

Aspects of *clinical culture* also emerged as having both positive and negative impacts upon the ability to share. Clinics were described as fast paced, pressured systems where physicians (even those most motivated to collaborate) and other clinicians are constrained by time limitations. This is balanced by the shared dedication to patient welfare, fluid roles, and the medical model of confidentiality. As stated by Dr. McDaniel, “This is the team approach; we are in this together.”

Outcomes

Information on outcomes was limited, and participant statements regarding outcomes were often in reference to improved collaborative communication or collaborative care in general, rather than the impact of MedFTs sharing biomedical information. However, several participants described individual cases in which the sharing of biomedical information impacted the patient’s health. For example, Dr. Bischoff described an early case where a casual hallway mention of a patient’s medication struggles prompted the physician to make medication changes (and impressed him as a young MedFT that physicians—even the best ones—do not always have all the pertinent patient information available to them). Dr. Lamson related the discovery of undetected diabetes-like symptoms and how she conveyed them to the physician. Drs. Patterson and Sellers discussed cases of terminally ill patients seeking alternative care which would impact treatment compliance and patient/physician relationships, and how they negotiated sharing the information and collaborating with the physicians to address the emerging issues.

Discussion

There has been a lack of basic research regarding the common practice of biomedical information sharing by MedFTs. The present study was conceived to fill this gap in the understanding of this MedFT practice, with an eye to assisting trainees in efficiently acquiring this skill. A strength of the study is that MedFT field experts were recruited for both their collective wisdom and their superior level of expertise in the field. This allowed the researcher to dig deeply into their individual and collective experiences as practitioners and supervisors/trainers. A key finding was that there was not much explicit thought on this issue, either in the history of the field (as told through the participants' narratives) or in current conceptualization of MedFT practice. Rather, the history of the practice of sharing biomedical information with physicians was folded into the general development of the MedFT field without much conceptualization.

The practice of sharing biomedical information appears to have been developed spontaneously, particularly for the earliest group of pioneer MedFTs practicing during the 1980s. This was at a time when many aspects of collaborative practice by MedFTs were being documented and discussed as they were developed and passed on to trainees and other interested mental health practitioners. This begs the question: Why was this practice essentially unobserved by field pioneers? It appears that the practice was developed reflexively and intuitively. The two aspects of this reflective, intuitive process are the healthcare environment and relationships. Insights regarding the reflexive aspects of this practice are discussed below.

The healthcare environment in the early years of Medical Family Therapy was (and still is) quick-paced and demanding. The majority of participants reported learning-

by-doing, and rapidly developing practices in response to emergent situations. What was available to them as they undertook this work was the existing structure of the healthcare team, which was dependent on openly communicating patient information among medical practitioners. The research findings indicated that, as family therapists first entering the healthcare environment, they quickly absorbed these existing communication practices. The practice of communicating biomedical information may not have received explicit consideration by the participants because it was already commonplace and accepted in the environment. In contrast, practices such as communicating psychosocial information to physicians constituted more of a challenge and received greater attention, in part because of the need to convert specialized jargon to accommodate physician understanding and the sensitive nature of importing other professional information into the existing healthcare cultural environment.

The most prominent themes that emerged from the participants' interviews were the importance of *the collaborative relationship* and *relational skills of the MedFT*. This reflects a common theme articulated in the literature (Bischoff, et al., 2012; Marlowe & Hodgson, 2014; McDaniel, et al., 2014; Patterson, et al., 2002). As family therapists, the participants were relational experts who had been trained to conceptualize and work within complex systems of individuals with varying levels of hierarchy and power (as found in family systems). These field leaders "walked-the-talk" regarding an overarching systems approach from the onset of their work in collaborative healthcare. Data indicated that they demonstrated ongoing sensitivity to the needs and comfort levels of their physician collaborators. Communicative stances were based on curiosity to soften

delivery and enhance the basic collaborative relationship. Shared bonds (such as concerns for a patient's welfare) were identified and strengthened at multiple points during the sharing process. Blurred roles and diffused information—often seen in family presentations—were quickly recognized and accommodated, as were cultural differences. Much of this is common to general MedFT communication practices.

What was unique in this study's findings was the careful way that the participants positioned themselves to share biomedical information that (to paraphrase one participant) could be perceived as being in the direct purview of the medical practitioner. It is noteworthy that while careful thought was given to the delivery of biomedical information on a personal level, this practice was rarely explicitly recognized by participants—or the field as a whole—as demanding a special kind of relational expertise. These MedFTs adapted quickly and relatively unconsciously to the sharing of biomedical information by accessing their superior relational skills, an accomplishment that was found daunting by some of their trainees.

Limitations

Medical Family Therapy has been a relatively small world until recently. The researcher began her training as a MedFT in 2001, and began to regularly attend CFHA and STFM meetings in 2004. She has had professional and/or personal relationships with several of the participants (CGG, LBM, and TSS), and developed acquaintanceships with others (ALL, BJJ, DBS, JH, SHM, and WBG) since that time. The potential for personal bias by the researcher because of the pre-existence of these relationships has been a source of ongoing reflection and concern throughout the research process. Steps were

taken (e.g., participant reviews, external audits), as indicated, to address this. However, it is possible that personal biases contributed to an overly-reverent framing of findings.

There also existed an inverse inequity of power and hierarchy between the participants and the researcher (unlike that found in most qualitative studies) in that it favored the elite participants. This also may have contributed to bias. This was addressed through self-reflection and external auditing.

While elite interviewing allowed for the discovery of unexpected themes and greater richness of information by allowing interview control to rest with the participants, it also contributed to an unevenness in data. Not all interview questions were covered in each interview, and the depth of topic coverage was often inconsistent. Except for a few instances where all participants commented on a theme (such as relationship), reports of the number of participants who commented on a theme should not be construed as representing the level of importance of a theme to respective (and the collective) participants.

Future Directions

This was an exploratory study meant to examine the development of the previously undocumented practice in Medical Family Therapy of sharing biomedical information. While the current research has drawn on the rich historical narratives and cumulative insights of field pioneers, further study is needed to examine processes used by new generations of MedFTs—especially in light of current changes and movements in integrated care. An ethnographic study of current practices *in situ* by MedFT trainees would advance our knowledge. A combination of audio recording and journal entries

could be used to capture practices as they are learned and advanced. Trainee responses and insights into practice development, alongside trainee challenges, could also be recorded. A further research direction could include a patient outcome study regarding the frequency of biomedical information sharing by current MedFTs in relation to chronic disease outcomes; this could be done through the use of MedFTs' self-reporting of information sharing vis-à-vis patient metrics like hemoglobin A1c values.

A companion study of the specific preferences of physicians for biomedical information sharing by MedFTs and other behavioral healthcare providers is also called for. This would include research regarding physician preferences about types of information shared and the sharing process(es) itself. Data from a survey of primary care physicians on these topics would contribute to the MedFT trainee's increased understanding of the importance of biomedical information sharing to the physician, indicate areas of assessment of patient biomedical information during MedFT/patient encounters, clarify issues of documentation of patient information in the shared electronic medical record, and further develop a typology of biomedical information relevant to this work.

In addition to the current training emphasis on relationship skills, a key implication for training comes from the topics of biomedical information in MedFT, which appear to be absent from most training programs' formal curricula. The following guidelines are suggested for curricular inclusion: Discussion of the types of biomedical information useful to physicians and methods of timely and appropriate conveyance based on the importance of emergent symptoms (such as EMR documentation versus

curbside consults or paging); an understanding of patient practices of indiscriminant information disclosure to healthcare team members; the use of curiosity, tentativeness and self-confidence to promote skillful cross-professional conversations with healthcare team members, particularly in the use of questions to convey information and explore treatment options. Scripting and role playing are suggested as appropriate means of practicing these professional skills with the concurrent effect of reducing trainee anxiety and increasing self-confidence with the mastery of interprofessional communication.

Finally, an increased use of interprofessional training at the early stages of MedFT (and MFT) and medical student training is strongly suggested to further break down barriers to understanding and communication between medical and behavioral providers, and increase opportunities to practice cross-professionally and collaboratively in respect to patients' biopsychosocial needs.

Conclusion

The sharing of biomedical information by MedFTs in integrated healthcare is a common but unexamined practice. Using the insights and professional development narratives of field leaders, the results of this study demonstrated that the practice evolved reflexively in response to the demands of the healthcare environment during the early years of the field based on the MedFTs' family systems orientation and relational skills. A five-point process of informational sharing and a typology of commonly shared biomedical information were identified. Building from this new knowledge, further research may seek to document the impact of the practice on patient outcomes, and to identify targeted strategies to inform MedFT training. Finally, through the increase of

skillfully accomplished biomedical information sharing, behavioral and medical provider relationship outcomes may be strengthened.

References

- Aberbach, J., & Rockman, B. (2002). Conducting and coding elite interviews. *American Political Science Association*, 35(4), 673-676. doi:10.1017/S1049096502001142
- Bischoff, R. J., Springer, P. R., Riesbig, A. M. J., Lyons, S., Likcani, A. (2012). Training for collaboration: Collaborative practice skills for mental health professionals. *Journal of Marital and Family Therapy*, 38(s1), 199-210. doi:10.1111/j.1752-0606.2012.00299.x
- Bischoff, R. J., Springer, P. R., Felix, D. S., & Hollist, C. S. (2011). Finding the heart of medical family therapy: A content analysis of medical family therapy casebook articles. *Families, Systems, & Health*, 29(3), 184-196. doi:10/1037/a0024637
- Conn, L., Lingard, L., Reeves, S., Miller, K., Russell, A., & Zwarenstein, M. (2009). Communication channels in general internal medicine: A description of baseline patterns for improved interprofessional collaboration. *Qualitative Health Research*, 19, 943-958. doi:10.1177/1049732309338282
- Dexter, L. (2006). *Elite and specialized interviewing*. London: ECPR Press.
- Edwards, T. M., & Patterson, J. E. (2006). Supervising family therapy trainees in primary care medical settings: Context matters. *Journal of Marital and Family Therapy*, 32, 33-43. doi:10.1111/j.1752-0606.2006.tb01586.x
- Engel, G. L. (1977). The need for a new medical model: A challenge for biomedicine. *Science*, 196, 129-136. doi:10.1126/science.847460
- Foy, R., Hempel, S, Rubenstein, L., Suttorp, M., Seelig, M., Shanman, R., & Shekelle, P. G. (2010). Meta-analysis: Effect of interactive communication between

- collaborating primary care physicians and specialists. *Annals of Internal Medicine*, 152(4), 247-258. doi:10.7326/0003-4819-152-4-201002160-00010
- Goldman, E., & Swayze, S. (2012). In-depth interviewing with healthcare corporate elites: Strategies for entry and engagement. *International Journal of Qualitative Methods*, 11(3), 230-243. doi: 10.1177/160940691201100304
- Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods*, 18(1), 59-82. doi:10.1177/1525822X05279903doi:10.1177/1525822X05279903
- Guest, G., MacQueen, K. M., & Namey, E. E. (2012) *Applied thematic analysis*. Los Angeles, CA: SAGE Publications, Inc.
- Hodgson, J., Lamson, A., Mendenhall, T., & Tyndall, L. (2014). Introduction to Medical Family. In J. Hodgson, A. Lamson, T. Mendenhall, & D. R. Crane (Eds.) *Medical family therapy: Advanced applications*. New York: Springer International Publishing.
- Institute of Medicine (2013). *Interprofessional education for collaboration: Learning how to improve health from interprofessional models across the continuum of education to practice—Workshop summary*. Washington, DC: National Academies Press.
- Kezar, A. (2003). Transformational elite interviews: Principles and problems. *Qualitative Inquiry*, 9(3), 395-415. doi:10.1177/1077800403251762
- Mackintosh, N., & Sandall, J. (2010). Overcoming gendered and professional hierarchies in order to facilitate escalation of care in emergency situations: The role of

standardized communication protocols. *Social Science & Medicine*, 71, 1683-1686. doi:10.1016/j.socscimed.2010.07.037

Marlowe, D., & Hodgson, J. (2014). Building relationships in integrated care. In J. Hodgson, A. Lamson, T. Mendenhall, & D. R. Crane (Eds.), *Medical family therapy: Advanced applications* (pp. 95-106). New York: Springer International Publishing.

Marlowe, D., Hodgson, J., Lamson, A., White, M., & Irons, T. (2012). Medical family therapy in primary care setting: A framework for integration. *Contemporary Family Therapy*, 34, 244-258. doi:10.1007/s10591-012-9195-5

McDaniel, S. H., Doherty, W. J., & Hepworth, J. (2014). *Medical family therapy and integrated care* (2nd ed.). Washington, D.C.: American Psychological Association.

McDaniel, S. H., Hepworth, J., & Doherty, W. J. (1994). *Medical family therapy: A biopsychosocial approach to families with health problems*. New York: Basic Books.

Morris, Z. (2009). The truth about interviewing elites. *Politics*, 29(3), 209-217.

doi:10.1111/j.1467-9256.2009.01357.x

Odendahl, T., & Shaw, A. (2001). Interviewing elites. In J. Gubrium & J. Holstein (Eds.). *Handbook of interview research: Context & method*. (pp. 299-216). Thousand Oaks, CA: Sage Publications, Inc.

- Patterson, J., Alcala, A. A., McCahill, M. E., & Edwards, T. M. (2009). *The therapist's guide to psychopharmacology: Working with patients, families, and physicians to optimize care*. New York: Guildford Press.
- Patterson, J., Peek, C. J., Heinrich, R. L., Bischoff, R. J., & Scherger, J. (2002). *Mental health professionals in medical settings: A primer*. New York: W. W. Norton & Co.
- Peek, C. J., Cohen, D. J., & deGruy, F. V. (2014). Research and evaluation in the transformation of primary care. *American Psychologist*, 69(4), 430-442.
doi:10.1037/a0036223
- Ritchie, J., & Ormston, R. (2014). The applications of qualitative methods to social research. In J. Ritchie, J. Lewis, C. M. Nicholls, & R. Ormston (Eds). *Qualitative research practice: A guide for social science students and researchers* (pp. 24-45). London: Sage Publications, Ltd.
- Robiner, W. N., Dixon, K. E., Miner, J. L., & Hong, B. A. (2014). Psychologists in medical schools and academic medical centers: Over 100 years of growth, influence, and partnership. *American Psychologist*, 69(3), 230-248.
doi:10.1037/a0035472
- Spencer, L., Ritchie, J., O'Connor, W. Morrell, G., & Ormston, R. (2014). Analysis in practice. In J. Ritchie, J. Lewis, C. M. Nicholls, & R. Ormston (Eds). *Qualitative research practice: A guide for social science students and researchers* (pp. 295-344). London: Sage Publications, Ltd.

- Tyndall, L., Hodgson, J., Lamson, A., White, M., & Knight, W. (2012). Medical family therapy: Charting a course in competencies. *Contemporary Family Therapy, 34*, 171-186. doi:10.1007/s10591-012-9191-9
- von Bertalanffy, L. (1968). *General systems theory*. New York: Braziller.
- Weiss, P. (1969). The living system: Determinism stratified. In A. Koestler, & J. R. Smythies (Eds.). *Beyond reductionism* (pp. 3-55). New York: Macmillan Publishing Co.
- Wright, L. M., Watson, W. L., & Bell, J. M. (1996). *Belief: The heart of healing in families and illness*. New York, NY: Basic Books.

Appendix A

Elite Participant Interview Guide

Examples of sharing biomedical information may include:

- *Symptoms obtained from patient/family*
- *Symptoms observed by MedFT*
- *Medication side effects*
- *Treatment compliance*
- *Safety issues*
- *Changes in presentation*
- *Complex bio/psycho/social interactions*
- *Concerns regarding medical diagnosis or treatment*

Development

1. Would you give me some background as to how you became involved in MedFT work?
2. When you first started MedFT work, what was collaborative communication like with medical providers?
3. What kind of information was shared? What kind was not shared?
4. How did you develop the practice in your own clinical work of sharing a patient's medical information with a collaborating medical provider?
5. Is there an early case you particularly remember in which you shared medical information with a medical provider?
6. Do you recall having any concerns about whether sharing medical information took you outside your scope of practice?
7. How has this practice evolved over the years in your clinical work?

Contributing Conditions

8. What do you see as important conditions (positive and negative) that impact an individual MedFT's ability to share medical information?

Types of Information

9. What are the types of medical information you have considered to be important to share in the collaborative process?
10. When you have trained MedFTs, do you suggest they share medical information with medical providers? What types of information?

Process of Sharing

11. Do you have a process for successfully sharing biomedical information with a medical provider?
12. Are there areas of concern that need to be addressed when doing it?
13. In what way (if any) does the practice of MedFTs sharing biomedical information impact collaborative sharing of patient information by other healthcare providers? Is there a reciprocal impact on the collaboration process?
14. What changes have taken place over time within the field that may contribute to the development of this practice of biomedical information sharing by MedFTs?

Outcomes

15. What—if any—has been the impact of this practice on the outcome of your patients?
16. On your relationships with collaborating providers?
17. On your growth as an MedFT?
18. On the development of the collaborative healthcare process?

Future Directions

19. In what way could this practice be promoted in the training of new professionals?

Appendix B

Sample Matrix Analysis

<u>#1. Meeting Preparation Summaries</u>	<u>Identified Themes</u>	<u>#2. Initiating Conversation Summaries</u>	<u>Identified Themes</u>
Pre-appt contact for background and areas of concern (Seaburn S42, 43)	Initial Case Collaboration Seaburn, Mauksch	Communicate shared commitment to patient (Sellers S55)	Reinforcing Collaborative Relationship Sellers
Flexibility with time and location (Seaburn S73)	Accommodating Physician's Needs Seaburn, Sellers, Jacobs, Lamson	Clearly state your limitations (<i>Not my purview . . .</i>) (Sellers S57)	Establishing Professional Limits Hepworth, Patterson, Sellers
Non Collocated: use RN to set up (Seaburn S66)	Medical Knowledge Jacobs	Start with request for permission to talk (Sellers S66)	Taking One-Down Posture Gawinski, Mauksch, McDaniel, Sellers
Awareness of availability (Sellers S64)	Strategic Planning Sellers, Gawinski	Non Collocated: Request permission to strategize on shared patient (Sellers S49)	Communication Skills Jacobs

Table 1

Elite Participant Names and Background Information

Participants	Academic Discipline	License	Medical Issue	Medical		Initial Collaboration ^a
				Culture Exposure	Collaborative Mentor	
Richard J. Bishoff, Ph.D. (RJB)	FT	LMFT	N		BHP	1995
Barbara A. Gawinski, Ph.D. (BAG)	FT	LMFT	Y	Y	BHP	1987
Claudia Grauf-Grounds, Ph.D. (CGG)	FT	LMFT	Y	Y	MD	1994
William B. Gunn, Ph.D. (WBG)	FT	LP/ LMFT	N		BHP	1986
Jeri Hepworth, Ph.D. (JH)	FT	LMFT	N	N	BHP	1981
Barry J. Jacobs, Ph.D. (BJJ)	Psy	LP	Y	Y	BHP	1987
Angela L. Lamson, Ph.D. (ALL)	FT	LMFT	Y	Y	BHP	1999
Larry B. Mauksch, Ph.D. (LBM)	Psy	LPC	N	Y	MD	1982
Susan H. McDaniel, Ph.D. (SHM)	Psy	LP/ LMFT	N	Y	BHP	1981
JoEllen Patterson, Ph.D. (JEP)	FT	LMFT	N	Y	MD	1993
Tina Schermer Sellers, Ph.D. (TSS)	FT/ Sex	LMFT	Y	Y	BHP	1995
David B. Seaburn, Ph.D. (DBS)	FT	LMFT	N		BHP	1986

Note. FT = family therapy; Psy = psychology; Sex = sexology; LMFT = Licensed Marriage & Family Therapist; LP = Licensed Psychologist; LPC = Licensed Professional Counselor; N = no; Y = yes; BHP = behavioral healthcare provider; MD = Doctor of Medicine.

^aYear of entry into healthcare collaboration (excluding academic internships/fellowships).

Table 2

Types of Biomedical Information Shared by MedFTs

Category	Participants ($n = 12$)
Medication issues	11
Missed medical information	6
Medical symptoms	5
Blurred BPSS issues	3
Metrics & tests	2
Patient concerns	2
Treatment noncompliance	2
Treatment planning	2

Note. Number of participants does not fully reflect participant beliefs regarding information types.

Table 3

Factors Contributing to Biomedical Information Sharing by MedFTs

Category	Participants ($n = 12$)
Collaborative relationship	12
MedFT personal qualities	
Self-confidence	10
Empathy	4
Flexibility	4
Devotion to patient welfare	2
Equanimity	2
Cultural humility	1
Enjoyment of teamwork	1
MedFT skills	
Observational	11
Relational	11
MedFT knowledge and training	
Nature of patient information	7
Shared patient concern	6
Continuum of physician interest	5
BPSS framework	3
Interprofessional training	3
Collaborative environment	
Clinical culture	8
Healthcare team	8
Collocation	5

Note. Number of participants does not fully reflect participant beliefs regarding importance of different contributors.

Figure 1

Biomedical Sharing Process by MedFTs