

Canadian Psychologists' Attitudes, Beliefs, and Perceptions about Test Feedback

by

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A thesis submitted in partial fulfillment of the requirements for the degree of

Master of Education

in

Counseling Psychology

Department of Educational Psychology

University of Alberta

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Abstract

This study is a qualitative secondary analysis of open-ended survey comments from a national survey of Canadian psychologists ($n = 399$) that extends the research of Jacobson, Hanson, and Zhou (2015). A case study research design is employed utilizing Consensual Qualitative Research (CQR) analytic procedures. These procedures emphasize the use of team consensus coding to establish trustworthiness in the findings. In this study, four team members and an auditor participated in analyses. The overarching research question is “What are Canadian Psychologists perceptions of test feedback (TFB)?” with an additional focus on the use and practice of TFB, factors influencing TFB practices, and TFB training. Results show that psychologists provide TFB in a variety of practice settings and connect the practice of TFB to other clinical activities, such as treatment planning. Psychologists state that tailoring feedback to client needs, collaborating with clients, and integrating test results are components of effective TFB. Ethical issues noted by psychologists are a lack of awareness of the standards of practice associated with TFB and competency issues like over-interpretation of results. Psychologists also comment on unique situations where feedback is provided to a third-party or caregiver rather than the testing individual. Finally, psychologists emphasize various gaps in academic training for TFB, such as a curriculum-based prioritization of written versus verbal TFB. Many psychologists developed their TFB skills through experiential training, such as a practicum or general clinical experience. Limitations of the study, recommendations for clinical practice, and directions for future research are discussed.

Preface

This thesis is a secondary analysis of an earlier study published in 2015 by Ryan M. Jacobson, William E. Hanson, and Hansen Zhou titled, “National survey of Canadian psychologists’ test feedback training and practice: A mixed method study”, *Canadian Psychology*, vol. 56, issue 4, pp. 394-404. In extending this study, I, Hansen Zhou, was responsible for analysis of existing, previously unanalyzed data collected by the first author of the original study (RMJ). I was also responsible for thesis writing. Aside from the use of secondary data, this thesis is an original work by me – with new research questions – and required formal ethics approval from the University of Alberta Research Ethics Board under the project title: “Canadian psychologists’ attitudes, beliefs, and perceptions about test feedback: A secondary analysis of qualitative survey findings”, ID No. Pro00059600. The study was officially approved February 3, 2016.

Acknowledgements

I would like to thank my supervisor, Dr. Bill Hanson. Your guidance and support were invaluable to the completion of this thesis. I feel a lot of gratitude for taking me on as a student and your mentorship has helped me grow a lot in my research and clinical skills. I would also like to thank my committee members, Dr. Sophie Yohani, Dr. Damien Cormier, and Dr. Bill Hanson. Your attentive consideration of my project and valuable feedback was very helpful. I also appreciated your kindness and interest during my defense.

I would also like to thank Ryan Jacobson for being open to the extending his research and sharing his time and his data from the original study. It made this whole project possible. I also want to express my appreciation for the analytic team on this project, Angie Allan, Diana Armstrong, and Kristy Dykshoorn, as well as the auditor, Terilyn Pott. Your assistance was crucial for bringing this thesis to fruition. I would also like to thank my family – my parents and younger brother, for your patience and assistance over the years of my education. I have a great appreciation for the help and support of many people throughout my education.

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Glossary of Terms and Variables

Attitudes. A person's stable way of thinking or feeling about a subject.

Beliefs. What a person holds as accepted, true, or an opinion they agree with strongly.

Case Study. A research design frequently situated in the qualitative realm. Case study designs are used to address in-depth descriptive research questions through the development of a rich, contextual understanding of specific, unique case examples of an issue or phenomenon. Multiple forms of data collection are used including interviews, observations, documents, and artifacts; cross-case thematic data analysis is often employed in case study (Creswell, Hanson, Plano Clark, & Morales, 2007).

Collaborative/Therapeutic Assessment (C/TA). A broad, overarching category of approaches to psychological assessment that emphasize engagement with the client across the entire assessment process (Finn, 2007). This approach to assessment arose out of the theory of Fischer, which argues that helpful assessments involve actively engaging clients, recognizing contextual influences, using the client's language, and respecting the complexity of client's lives (Fischer, 2000).

Consensual Qualitative Research (CQR). A qualitative case study research design developed by Clara Hill and her colleagues. This design is characterized by constructivist, slightly post-positivist philosophical assumptions, rich textual data from a small number of cases, a step-wise analytic method employing a team consensus approach for coding, and a frequency based method to reporting findings (Hill, Thompson, & Williams, 1997; Hill et al., 2005).

Core Idea Abstraction. The second major analytic step in CQR analysis. In this step, the analytic team distills raw textual data into concise statements for clarity purposes. A team consensus approach to coding is used for rigour.

Cross-Analysis. The third major analytic step in CQR analysis. In this step, the analytic team identifies general thematic categories within the domains identified in a previous analytic step. A team consensus approach to coding is used for rigour.

Domain Coding. The first major analytic step in CQR analysis. In this step, the analytic team codes significant chunks of raw text into broad, overarching content areas. Often a Start List is employed for initial coding, which grows and modifies as the analytic step progresses. A team consensus approach to coding is used for rigour.

Perceptions. How a person understands and/or interprets a subject.

Psychological Assessment. Concept that encapsulates an entire process, which includes the initial referral and associated questions, clinical interviews, administration of tests, scoring and interpretation, getting corroborative information, writing assessment reports, and providing test feedback.

Psychological Testing. A portion of the psychological assessment process. This concept includes the selection of psychological tests, administration, scoring, interpretation, and providing test feedback.

Qualitative Research. A research methodology that focuses on exploring and understanding human issues or social problems. The qualitative research process emphasizes data collection in a naturalistic setting, inductive data analysis, researcher participation and interpretation, and appreciation of depth and complexity. Research methods are characterized by small, purposeful samples utilizing data collection methods like interviews and focus groups to obtain enriched, in-depth textual data (Creswell, 2009).

Start List. A strategy used as part of the first analytic step of CQR - domain coding. A start list is a pre-determined list of over-arching content areas, often drawn from the research or interview questions, that serves as a foundation for initial coding of broad content areas in the textual data.

Survey. A quantitative research method that involves distribution of a measurement tool to a representative sample of individuals in a population of interest. Surveys enables researchers to obtain a breadth of information about a population in a efficient and convenient manner. Surveys are frequently conducted via mailing or online distribution.

Test Feedback (TFB). Sharing psychological assessment results in an understandable manner.

Test Interpretation. The process of scoring, analyzing, and drawing conclusions from a client's psychological testing.

Therapeutic Assessment (TA). The semi-structured collaborative assessment approach developed by Stephen Finn and his colleagues characterized by an explicit, stepwise model. The approach draws from a humanistic orientation, and as such places focus on relationship building, empathy magnification, and client engagement (Finn, 2007).

Chapter 1: Introduction and Literature Review

Psychological assessment and psychological testing have tremendous empirical support for both their validity and clinical utility. Psychological assessment refers to the broader process that spans from the initial referral to the production of the final written assessment report.

Psychological testing refers specifically to a part of the psychological assessment process that involves selection, administration, interpretation, and provision of feedback for psychological tests. The empirical evidence for psychological assessment and psychological testing demonstrates its effectiveness, for example, for measuring clinical symptoms, performing differential diagnostics, evaluating functional behaviour, predicting mental health and psychotherapy outcomes, and even functioning as a therapeutic intervention in itself (Kubiszyn et al., 2000; Meyer et al., 2001). Despite the potential benefits, the practice of psychological assessment is declining in recent years due to systemic factors such as limits placed on test selection, the number of sessions delineated for assessment, and monetary reimbursement. Psychological assessment is on the verge of a crisis, where its utility is challenged by the pressures and demands of the health care system (Meyer et al., 2001). More than ever, the practice and training of psychological assessment needs a firm foundation in scientific evidence. One important aspect of assessment - test feedback (TFB), is particularly amorphous and is in need of additional empirical investigation and theoretical understanding.

TFB may be defined, most simply, as sharing assessment and test results in an understandable manner (Jacobson, Hanson, & Zhou, 2015). TFB has accumulated evidence for its therapeutic utility. Poston and Hanson (2010) conducted a meta-analysis of psychological assessment with collaborative feedback as a therapeutic intervention, finding significant evidence for its efficacy on a variety of outcomes (Cohen's $d = 0.423$). Experimental studies of

psychological assessment and TFB as an intervention are also finding significant effects on outcome variables such as therapeutic alliance (Ackerman, Hilsenroth, Baity, & Blagys, 2000; Hilsenroth, Peters, & Ackerman, 2004), self-reported symptoms (Finn & Tonsager, 1992; Newman & Greenway, 1997), self-esteem (Finn & Tonsager, 1992; Newman & Greenway, 1997), and perceptions of the assessor's helpfulness (Hanson & Claiborn, 2006; Hanson, Claiborn, & Kerr, 1997). Based on this accumulated body of research, recommendations are being made for more clinical training on TFB, greater clinician awareness of its power and potential, and the revision of standards and benchmarks for psychological assessment (Poston & Hanson, 2010; Jacobson et al., 2015).

Several recent studies explore psychologists' perceptions and experiences with TFB in the United States and Canada (Curry & Hanson, 2010; Jacobson et al., 2015; Smith, Wiggins, & Gorske, 2007). Smith et al. (2007) conducted a quantitative, online survey study on psychologists' feedback practices by sampling 719 psychologists. The authors examined feedback delivery and psychologists' perception of TFB impact. The study found that psychologists frequently provide TFB and perceive it as useful and beneficial because it facilitates open dialogue with clients, client engagement in the assessment process, and client motivation to follow through with recommendations. Both Curry and Hanson (2010) and Jacobson et al. (2015) also examined psychologists' practices in sharing TFB with clients, psychologists formal training on TFB, and factors associated with the provision of TFB, through a sequential explanatory mixed methods investigation (Hanson, Creswell, Plano Clark, Petska, & Creswell, 2005). Curry and Hanson (2010) surveyed doctoral-level psychologists and found that the vast majority of respondents provide verbal TFB. A small minority of those surveyed report using psychological assessment as a therapeutic intervention frequently or almost always (7.2%).

However, many respondents indicate their doctoral training provides little preparation for TFB and their internships do not adequately prepare them to facilitate TFB. The authors then examined factors influencing the provision of TFB qualitatively and found that the assessment situation, in particular, testing in forensic psychology, is a major reason why TFB may be absent. Concern over how clients might react to negative or unexpected feedback also influences TFB provision. Also, the findings suggest that individuals who do not find their training helpful learn TFB skills on their own, largely through trial-and-error or with guidance from supervisors and colleagues. Curry and Hanson's study was recently replicated in a Canadian context by Jacobson et al. (2015) using a similar mixed methods approach. Like the American study, the survey findings indicate that the vast majority of Canadian psychologists provide TFB frequently in their clinical practice. However, only a minority of psychologists use psychological assessment as an intervention frequently or almost always (12.3%). Most psychologists report deliberate efforts to ensure client understanding of feedback, to highlight the implications of test results, and to provide opportunities for clients to ask questions. In contrast to Curry and Hanson (2010), most respondents report that their training in assessment effectively prepared them to provide TFB. Like the American findings, TFB providers in Canada also learned the skill through self-instruction and trial-and-error. The authors also found that the assessment situation, specifically assessment in forensic and child/adolescent settings, serves as a barrier to feedback provision. In general, psychologists' offer TFB quite ubiquitously, are self-trained in TFB through practical/clinical experience, and the assessment context is highly influential on TFB provision.

The purpose of this case study is to obtain a deeper understanding of Canadian psychologists' perceptions of TFB, their usage of TFB, factor that influence TFB practices, and the nature of TFB training. This will be accomplished through a secondary analysis of previously

unanalyzed qualitative data from the work of Jacobson et al. (2015); specifically, open-ended comments obtained from their original national survey of Canadian psychologists. As the original study prioritized qualitative interview methods as part of the explanatory sequential mixed methods approach, the open-ended comment dataset was not formally analyzed. This will study analyze this dataset to address a new set of research questions. The central phenomenon is respondents' perceptions of TFB and TFB training. Exploring this central phenomenon is intended to further explain the findings of Jacobson et al. (2015) related to the practice and training of TFB.

The overarching research question (RQ) for this study is: "What are Canadian psychologists' perceptions of test feedback (TFB)?" Three additional qualitative questions encompass the explanatory follow-up purposes of this study: "How do Canadian psychologists' perceptions of TFB explain their use and practice of TFB?", "How do factors such as area of practice, helpfulness of training, and type of training influence the practice of TFB?", and "How is training in TFB for Canadian psychologists primarily practical?"

Significance of the Present Study

This study is significant for three main reasons. First, survey studies of psychologists describe their TFB practices and training experiences while identifying several factors that influence the provision of TFB (Curry & Hanson, 2010; Jacobson et al., 2015). However, the experience of practitioners in using TFB is not well understood. For example, Jacobson et al. (2015) discuss how a deeper understanding of the value that psychologists place on TFB can facilitate efforts to establish "buy in" and remove barriers to implementation of the practice. The current study contributes to an experiential understanding of how psychologists use TFB. Second, although there is a high prevalence of research on psychological assessment in general

and the components of assessment such as test administration, interpretation, and clinical interviewing (Kubiszyn et al., 2001), there is little published research on current TFB practices and scarce empirical evidence on the effective provision of TFB (Gass & Brown, 1992; Smith et al., 2007; Ward, 2008). The present study can benefit to the field by not only elaborating further on the themes that contribute to the provision of TFB but also by shedding light on what is the nature of effective TFB. Thirdly, there is consistent survey evidence on the importance of training in psychological assessment (Clemence & Handler, 2001; May & Scott, 1991; Piotrowski & Belter, 1999; Stedman, Hatch, & Schoenfeld, 2000; Watkins, 1991). These studies show that practitioners and psychology internship training directors consider assessment training to be a critical component of students' general education. However, these surveys also focus primarily on respondents' desires in terms of experience or proficiency with specific tests, specific coursework, as well as written report requirements. There is a dearth of published research examining how to effectively train graduate students and practitioners on specific aspects of psychological assessment such as TFB. The few available studies specific to TFB training have been exploratory: highlighting the importance of experiential learning, contextual considerations, and the need for trainees to see the clinical utility (Haydel, Mercer, & Rosenblatt, 2011; Smith & Egan, 2015). The present study informs training programs on the topic of psychological assessment by identifying what works in training psychologists to provide TFB.

Theoretical Framework: Therapeutic Assessment

In the last 40 years, there has been a seismic paradigm shift in the field of psychological testing with the empirical realization that the process itself can be therapeutic for clients (Martin, 2009). The first published studies on TFB in the early 1950s examined factors influencing the test interpretation process in vocational testing (Dressel & Matteson, 1954). Since then several

prominent theorists and researchers have emerged in the area of assessment as a therapeutic intervention, including Harry Stack Sullivan, Constance Fischer, Richard Dana, Stephen Finn, and Leonard Handler (Finn, Fischer, & Handler, 2012). In a personal reflection, Fischer (2000) discusses her formative experiences with collaborative/therapeutic approaches to assessment (C/TA), asserting that traditional assessment reports are often not helpful or even harmful to clients. Her story began in the 1960s, when Fischer submitted case studies that included clients as collaborators in assessment. The response to these articles was severe rejection, and claims that such practices are unprofessional, unethical, and harmful. However, Fischer relates that in the 1970s there was a shift towards collaborative approaches amongst practitioners, and thus she published a number of studies and a book that fully outlined her theories. Fischer's theory is encapsulated under the following principles of collaborative assessment: engaging the client as an active agent in assessment, recognizing contextual influences, providing individualized intervention, using the client's language as an empathy magnifier, and respecting the complexity of client's holistic lives.

Although not explicitly identified as C/TA, other theorists have also expressed principles similar to Fischer's. For example, in Dana's (1985) service delivery paradigm for personality assessment, the author states that healing stems from a personal process facilitated by a therapeutic bond between the client and assessor. Dana also emphasizes how empathy, emotional support, and egalitarian engagement transform feedback into a resource for the client. Pope (1992) argues that feedback is the neglected aspect of psychological assessment and describes how it is a dynamic, interactive process characterized by thoughtful discussion of test results with clients. Pope also suggests that potential sources of bias and error in tests should be acknowledged as part of the feedback process. Gass and Brown (1992) elaborate on the

importance of feedback in the specific context of neuropsychological testing. When providing TFB, Gass and Brown suggest reviewing the purpose of testing, relating the feedback to client functioning and daily experience, eliciting a two-way conversation with clients, and involving family members in identifying strengths and weaknesses. It is clear that their view of effective TFB also share some of the features of C/TA.

A collaborative, client-centered style of communication seems to be a key distinguishing feature across the various C/TA approaches described above. This style is well exemplified by another form of C/TA - the therapeutic model of assessment (TA). TA is an approach to psychological assessment developed by Stephen Finn and Mary Tonsager at the University of Texas, drawing on personal experience, research, the views and writings of Harry Stack Sullivan, and the writings of psychological assessment practitioners with a humanistic leaning such as Fischer (Finn, 2007). The TA model has distinct features compared to the prototypical or traditional 'information gathering' (IG) approach to assessment. In Finn and Tonsager (1997) an extensive theoretical discussion is presented contrasting the TA and IG approaches in terms of goals, the process, view of tests, focus, the role of the assessor, and assessment failure. See Table 1 for a summary of their theoretical comparison.

Table 1

Summary of the therapeutic assessment and information gathering approach to assessment based on Finn and Tonsager (1997)

Criteria	Therapeutic Assessment	Information Gathering
<i>Goal of assessment</i>	For the client to gain new experiences and learnings that help initiate change	Obtain information to make decisions about clients and communicate with other professionals

<i>Process</i>	Develop and maintain empathy, engage collaboratively with clients	Gathering data, making interpretations, and generating clinical recommendations
<i>View of tests</i>	Opportunities for dialogue and tools for empathy enhancement	Psychometrically sound instruments that enable normative comparison
<i>Focus of approach</i>	The process and client's subjective experience	Test scores and associated clinical decisions
<i>Role of assessor</i>	Participant-observer	Objective technician
<i>Definition of assessment failure</i>	Client feels disrespected, hurt, or abused, or if client's goals are not met	Process results in biased information and/or incorrect clinical decisions

Finn and Tonsager (1997) argue that within the field of psychological assessment the IG approach is over-emphasized, limiting the potential for assessment to serve as a powerful brief therapeutic intervention. In contrast, the process of assessment and psychotherapy is becoming increasingly blurred because of the utility of psychological assessment in helping clients explore and discuss difficult material, to explicitly work with in-session interpersonal processes, and to initiate and catalyze therapeutic work. However, the authors also suggest the TA and IG approaches can be theoretically complementary. The IG approach helps to ensure that test interpretation is rigorous and is based on sound data and psychometrics, while the TA approach helps to ensure that test interpretations are relevant and useful to clients.

The concept of self-verification is a key mechanism underlying the relevance and utility to clients within the context of TA (Finn & Tonsager, 1997). Self verification is the process whereby people seek to confirm their own self-views, either positive or negative, because maintaining a stable sense of self is critical to how people shape their lives, guide behaviours, and organize their perception of reality. Research shows that people with negative self-views prefer unfavorable feedback even when positive feedback is available, which suggests that any self-discrepant feedback can threaten one's identity and cause anxiety (Swann, 1997). The implication of self-verification theory in the TFB aspect of the TA model is in the concept of three separate levels of feedback. Finn (2007) suggests that clinicians begin the discussion/summary of test findings with level one feedback: results that confirm the clients' self-views and are easily integrated into their understanding. This feedback is then followed by level two feedback: results that are slightly discrepant but unlikely to threaten the client's sense of self or identity. Through this process, the clinician establishes their credibility and a rapport with the client, and only then proceeding with level three feedback: results that are highly discrepant and likely to provoke anxiety and be rejected by the client. Conceptually, this approach is consistent with decades of social psychology research regarding self-perceptions and attitude change (Cacioppo & Petty, 1984; McGuire, 1968).

Finn (2012) also emphasizes the importance of an emotionally laden process in relation to the therapeutic benefits of psychological assessment and TFB, which the TA model seeks to maximize. Finn contends that therapeutic benefit is derived from the extent that the assessor can establish a safe, attentive, and respectful relationship with the client using relational skills and sensitive empathy. Feedback is viewed not as merely the transmission of information but as a highly impactful emotional event that can be used for maximal benefit for the client.

Empirical Foundations

In an effort to gather a comprehensive overview of the evidence for TFB and TA, I initiated a search of the PsychINFO database and Google Scholar using the terms "test feedback", "therapeutic assessment", "collaborative assessment", and "psychological assessment." The search is limited to peer-reviewed journal publications in English between 1990 to the present. The reference lists of identified review articles were also searched and relevant articles discerned. Case studies are included in a separate section of this literature review because of the sizable number of studies employing that design. Conference proceedings and unpublished theses and dissertations are not included.

The research evidence for psychological assessment as a therapeutic intervention has slowly accumulated across diverse settings and populations over the past 70 years, gaining speed since the early 90s. Both TFB as an intervention and TA demonstrate effectiveness across various forms of outcome measurement when compared to non-feedback and/or the IG approach to assessment. This evidence will be reviewed in detail in this chapter.

Perceptions and Attitudes towards Test Feedback

The research examining assessor and assessee attitudes towards TFB is quite limited and consists primarily of surveys focused on psychologists' practices. This literature review identifies 2 purely quantitative survey design studies, 2 sequential explanatory mixed method studies with a survey phase followed by an explanatory qualitative interview phase, and 1 qualitative interview study. The first study reviewed in this section is a survey examining the consumer experience with neuropsychological assessment, specifically in relation to feedback and its potential benefits (Bennett-Levy, Klein-Boonschate, Batchelor, McCarter, & Walton, 1994). In this quantitative study, 253 clients were retrospectively surveyed via mail after completion of a

neuropsychological assessment. A total of 129 responses were returned for a response rate of 51%. The results specific to TFB demonstrate that the majority of clients receive feedback during assessment (67%) and perceive it as useful (67%). However, many do not receive written forms of feedback (71%) but feel that it would be helpful (71%). More than half of the respondents also want more information in general (59%). The survey tool used in this study has many limitations such as: limited evidence of content validity, no psychometric information, Yes/No response options, and overlapping question content. Overall, this study provides initial evidence that clients want feedback during assessment and find it useful.

Smith et al. (2007) conducted a quantitative, cross-sectional, internet-based survey study on psychologists' feedback practices. The researchers' questions focused on psychologists' perceptions on how feedback is provided and the impact of TFB. A sampling frame of 2217 members was drawn from the International Neuropsychological Society (INS), the National Academy of Neuropsychology (NIN), and the Society for Personality Assessment (SPA). There were 719 respondents yielding a response rate of 32% (but this rate is reported as 22% in the article). The majority of psychologists surveyed were likely to provide feedback in-person (71%) and/or through written reports (64%). The perceived benefits of TFB were facilitating open dialogue, helping clinicians understand the problem, engaging clients as active participants in the assessment process, and enhancing motivation to follow treatment recommendations. The authors conclude that TFB is a vital component of assessment, that psychologists frequently provide TFB, and that they perceive it as beneficial. Limitations of this study include data collection restrictions (i.e. work setting demographics), possible sampling bias due to targeted recruitment of respondents from neuropsychological assessment societies, and low response rate.

Building on Smith et al. (2007), Curry and Hanson (2010) conducted a sequential explanatory mixed methods study consisting of a quantitative phase comprised of a national survey of psychologists' TFB practices, followed by a qualitative phase with telephone interviews with select respondents based on their survey responses. The national survey used a 32-item instrument developed by the authors that collects information on respondents' feedback activities, training in TFB, and demographics. The sampling frame is 964 members of the American Psychological Association (APA). Responses from 468 doctoral level psychologists were obtained, for a response rate of 48.5%. In the qualitative phase, respondents were invited to participate based on their regularity of TFB usage in practice and their level of training related to providing TFB. The quantitative results show that the vast majority of psychologists provide verbal TFB (91.6%), a lesser proportion prepare clients for feedback (56.6%), and a minority encourage clients to generate personally relevant questions (19.7%). Many psychologists also indicate that their pre-doctoral (35.6%) and internship training (33.5%) was not helpful in preparing them to provide TFB. The qualitative results suggest that the reason some psychologists do not provide TFB is because of the context of assessment (e.g. forensic setting, employment screening) and the perception that the feedback could potentially be harmful. The potential benefit of TFB that psychologists identify is providing individualized, meaningful information for clients to spark insight and awareness. The potential drawback of TFB is client misunderstanding and misinterpretation due to inaccuracies in communication. Psychologists report a lack of formal training in TFB and primarily learned the skill through self-instruction and trial-and-error. Based on their findings, Curry and Hanson (2010) conclude that there are gaps in psychologists' training related to communicating TFB and that the context of assessment influences TFB provision. The limitations of the study are possible sampling bias due to targeted

recruitment of APA members that indicate interest in assessment in their profiles, problems with clarity on some survey items, and over-representation of men and lack of ethnic diversity in the sample.

Curry and Hanson's (2010) research topic and method was recently replicated in a Canadian sample (Jacobson et al., 2015). This replication also utilized the sequential explanatory mixed methods approach with a quantitative survey phase followed by a qualitative telephone interview phase. The national survey was administered online with a 40-item adaptation of the original survey developed by Curry and Hanson (2010) specific to Canadian psychologists. A census sampling of the Canadian Psychological Association membership directory (2,763 emails) was conducted and viable responses were obtained from 399 licensed Canadian psychologists for an overall response rate of 14.4%. For the follow-up interviews in the qualitative phase, two groups of participants were purposefully selected. Group 1 consists of participants that conduct assessments and provide TFB despite reporting insufficient training. Group 2 has participants who do not provide TFB. The survey shows that 91% of respondent psychologists report providing TFB frequently or always, 92% make deliberate efforts to ensure client understanding, 95% highlight implications, and 95% provide opportunities for clients to ask questions. However, only 17% of respondents encourage clients to generate personally relevant questions. In contrast to Curry and Hanson (2010), the majority of psychologists state that graduate (64.9%) and post-graduate (65.6%) training effectively prepared them to provide TFB. Most respondents learn TFB skills through practicum/clinical experience (64.4%). The follow-up interviews further explain the survey results. TFB providers state they learned TFB skills primarily through self-instruction and trial-and-error, and that presenting feedback skillfully minimizes risk of misinterpretation. Non-TFB providers report that their primary

reason for not providing feedback is lack of opportunity or precedent in their area of work, particularly if the client and the test-taking individual are different parties (e.g. forensic settings). Both groups identify benefits of TFB such as enhancing client understanding, consideration of client needs and context, and providing opportunities for clients to change. Negatives of TFB provision are potential client misunderstandings, clients being overwhelmed by feedback, and client inability to follow through with recommendations. Generally, the findings of Jacobson et al. (2015) are aligned with those of Curry and Hanson (2010) suggesting that TFB practices in the United States and Canadian psychologists are similar. However, training in TFB remains an area for improvement across populations of psychologists. The limitations of this study are low response rate, possible response bias due to self-selection, ethnic/cultural invariability of the sample, correlational analyses conducted post-hoc, a lack of French translation of the survey instrument, and the qualitative analyses being conducted by a single author in isolation.

Ward (2008) examined perceptions and attitudes toward psychological assessment and TFB from both the assessor and assessee viewpoint and focused on significant experiences. The purpose of this qualitative study was to explore factors underlying the assessment process. In Ward's study, the specific study design is not clearly articulated, but the author uses a semi-structured interview method to collect data on participants' subjective experiences. The participants were 6 clients and 6 clinicians, interviewed after completion of an assessment battery consisting of the Wechsler Adult Intelligence Scales – Fourth Edition (WAIS-IV), Minnesota Multiphasic Personality Inventory-2 (MMPI-2), and the Rorschach Inkblot test. The IG approach (Finn & Tonsager, 1997) is used in the assessment with TFB as the final session. Assessee's significant moments during the psychological assessment include being uniquely understood, participating collaboratively in the assessment, receiving discordant or unwanted test

results, feeling upset due to the results, and noticing a shift from self-blame to informed action. Assessors' significant moments include getting the assessee engaged and attentive in the feedback process, providing challenging feedback on emotional difficulties, and having the client move from a global negative self-image to one that is more nuanced. The assessors' definition of successful feedback encompasses providing concrete recommendations, obtaining an overarching meaning or causal explanation, collaboration with the assessee, and having the assessee emotionally resonate with the results. From these findings, the author conclude that assessment serves multiple functions such as testing clinical hunches, bringing ideas about the self out into the open, and obtaining a better understanding of negative feelings. Clients use the assessment as a way to re-interpret, re-evaluate, and re-author both their conception of self and their issues. Ward's study shows the interplay between the emotionally arousing aspects of feedback and its association with client change. The limitations of the study include the small sample size and the focus on cognitive and neuropsychological assessment content.

Across the 5 studies reviewed related to psychologists' and clients' perceptions of TFB there are some common conclusions. Clients want TFB and find it useful because it offers opportunities to re-evaluate their sense of self from a different viewpoint. Psychologists frequently provide TFB in both verbal and written form, perceive clinical benefits from providing TFB such as enhancement of client understanding and facilitating change, and perceive gaps in their training for TFB provision.

Training in Psychological Assessment and Test Feedback

As emphasized in the preceding section, psychologists perceive major gaps in their training for psychological assessment and specifically TFB. As such a brief review of the literature on psychologists' training on psychological assessment and TFB is presented. One major area in the

assessment training literature examines the expectations for psychologists' graduate and internship level training. These studies are quantitative, cross-sectional investigations consisting of national surveys of students, professionals, and/or training directors. Watkins (1991) reviewed clinical and counseling psychology survey literature related to training expectations for psychological assessment. The review encompasses publications from 1960-1990. Watkins presents several conclusions about the teaching and practice of psychological assessment based on the literature search, these are described below. Assessment is a critical component of psychological training and students receive exposure to a variety of methods regardless of the type of training, Training directors and practitioners recommend that students learn the Wechsler assessments, Strong Interest Inventory, MMPI-2, 16PF, California Psychological Inventory, Rorschach Inkblot test, Thematic Apperception Test, sentence-completion blanks, Bender-Gestalt, and picture drawing tests. Clinical and counseling psychologists are generally satisfied with their training on intelligence testing, objective personality testing, and projective assessment in graduate school. Counseling psychologists want more training on projective testing, however. Internship directors believe that psycho-diagnostic assessment skills are important. Having a good training background in assessment enhances students' opportunities for internship and job placements. Watson summarizes these conclusions by stating that psychological assessment continues to play an important role in training and practice, and that the methods of assessment (e.g. specific tests) remain relatively consistent. Watson's conclusions are limited by the lack of information on the review methods and the subjective nature of the author's interpretations in the review.

More recent studies on expectations for training in psychological assessment also highlight the importance and need for graduate student training in the basic skills of psychological

assessment and testing. Clemence and Handler (2001) conducted a survey examining the expectations of internship training directors for students' psychological assessment training. Nearly all sites report needing to provide additional training to interns, on topics such as report writing (92%), advanced assessment (86%), feedback to patients (84%), feedback to referral sources (74%), and specific tests (44%). Stedman et al. (2000) also studied internship directors' assessment expectations for students with a quantitative survey and found that directors expect students to have completed 10 to 27.5 reports on average. Directors of consortia sites had the greatest expectations for number of reports and directors of university counseling centres had the lowest expectations.

It is clear that there is a need for training in psychological assessment, however, there is significantly less research on the process of training, and in particular, training for the TA model and TFB. Finn (2007) narrates a personal approach to teaching the theory and techniques of TA in an introductory course on personality assessment. Finn's strategy to address the evaluative challenges and complexities of such a course is to apply the principles of TA to the course itself. This application is implemented by acknowledging students' and instructor's anxiety about the course, recognizing the impact of this anxiety on student and instructor behaviour, outlining the expectations for the course, engaging students as collaborators in the structural and evaluative aspects of the course, enhancing content relevance by addressing students' personal and professional goals, and discussing feedback in a supportive and validating manner. Ultimately, Finn's approach is intended to alleviate student and instructor anxiety, to improve student motivation, to enhance the accuracy of pedagogical evaluation, create opportunities for instructor growth, and engender a long-lasting impact on students. Finn's sentiments and strategies are echoed by Hanson (2013) in a reflective commentary on experiences teaching a TA practicum

course. The author emphasizes modeling the core features of the TA process in the teaching of the course itself, which involves validating students' past experiences with assessment courses/practica, generating personal and professional goals, collaborating in the exploration of course expectations and evaluations, and co-constructing final evaluations and grades. The aspects of the TA model that are particularly challenging for students are developing assessment questions with clients, estimating client's defensiveness to specific pieces of feedback, and providing negative feedback. Specific strategies are developed to address these challenges such as brainstorming fallback questions, development of a MMPI-2 pre-test estimation tool, and conducting pre-feedback role plays that emphasize client validation.

Building off of these conceptual discussions, Smith and Egan (2015) conducted a qualitative study to examine the helpfulness of TA training methods and identify ways to improve them. The authors examined both instructor and trainee perspectives in a doctoral course on personality assessment that includes education on the TA model. The study design is unclear but trainee self-evaluation comments and client feedback comments were analyzed for content to generate themes. Themes identified in the trainee self-evaluations include the clinical utility of TA, positive feelings towards TA, the intent to continue learning about psychological assessment, feelings of competence with TA, and a sense of congruence with their personal value system. Many trainees also faced challenges like feeling rushed, errors in administration, and a lack of theoretical knowledge. From the client perspective, themes relating to their experience include positive feelings towards the sessions, new self-awareness or understanding, positive relationships with assessors, noteworthy practicality and utility from the session content, and feeling understood and validated. The findings suggest that education on TA is an acceptable and impactful process for trainees and clients: it motivates trainees to continue learning about

assessment and provides clients with information that has practical value. A key limitation in this study is issues with the study design: the use of a pre-determined structured coding system and concerns with the richness of the data limit the authenticity of the conclusions. Other limitations include small sample size and the use of non-validated instruments. Haydel et al. (2011) also explored the topic of TA training by presenting a training case study. The authors were students learning TA while being supervised by Stephen E. Finn in the context of a TA workshop. One important concept the case emphasizes is the use of a group training model to facilitate reflection with peers, which enables training consultation sessions to debrief and brainstorm hypotheses. The team training model also helps individual member's process their personal reactions and counter-transference.

Overall, the research literature on TA training is primarily conceptual, with some limited evidence of its acceptability as a focus for training. The strategy of approaching training and education related to TA using the concepts of the model itself is interesting and worthy of further and more sophisticated empirical investigation. It is unclear what specific strategies for TA training are 'the best.' The review identifies no studies specifically empirically investigating strategies or procedures for training students in giving TFB during psychological assessment.

Quantitative Findings

Perhaps the strongest case for the therapeutic effect of TFB as an intervention comes from a meta-analysis conducted by Poston and Hanson (2010). The purpose of the study is to examine the effect of psychological testing when combined with personalized, collaborative feedback on treatment process and outcome variables. The intention is to calculate Cohen's *d* effect sizes for this effect, as this statistic enables standardization of disparate operational definitions and outcome measures. A broad operational definition of psychological assessment as an intervention

is used in the review: any psychological testing with feedback. Studies included in the analysis also need to be relevant to the stated research purpose, have an experimental design, measure therapeutic benefit, and have authentic data. The review identifies 17 studies for inclusion in the meta-analysis. An overall significant effect size of $d = 0.423$ is calculated from 18 independent and 52 non-independent effect sizes. The total sample is 1,496 participants. From this finding, the authors conclude there is strong evidence that TFB has therapeutic benefits as an intervention, and as such competency benchmarks and guidelines related to assessment feedback should be revisited and clinicians should be trained in and familiar with approaches to psychological assessment such as TA. Lilienfeld, Garb, and Wood (2011) presented a critical response to Poston and Hanson (2010), arguing that the effect size for psychological assessment as an intervention is over-estimated. The authors note that three studies reviewed by Poston and Hanson (2010) include additional treatment components alongside the assessment as intervention, that 17 non-significant effect sizes across five articles are omitted in the effect size calculations, and that the Barnum effect could serve as an alternative explanation for the results. The authors of the original meta-analysis responded to these critiques empirically by conducting a re-analysis excluding the three studies that had extraneous treatment components and including the previously omitted non-significant effect sizes (Hanson & Poston, 2011). The re-analysis resulted in a significant Cohen's d effect size of 0.403 with failsafe $N = 45$, which is quite comparable to the original effect size estimate. In terms of the Barnum effect consideration, Hanson and Poston stress that the purpose of the meta-analysis is to focus on the 'what' of the effect rather than the 'why' behind the effect and that more research is needed to address theory based criticisms. Hanson and Poston's (2011) empirical approach in responding to the criticism

provide further evidence that psychological assessment as an intervention has efficacious and clinically meaningful effects.

Alongside this meta-analytic study, there are also several quantitative studies examining the impact of TFB and/or TA as an intervention in an experimental or controlled fashion. This literature review identifies 21 empirical studies that provide evidence of the therapeutic effects of TFB. Research evidence on the effectiveness of the TA approach is also reviewed, since assessment feedback is a significant component of that model. The empirical studies reviewed here are all quantitative. Nearly all of them are experimental: either randomized, controlled studies or quasi-experimental controlled studies. The studies examine outcomes that include symptom change, treatment adherence, therapeutic alliance, session process effects, suicidality, addictions, vocational outcomes, industrial/organizational psychology outcomes, and perfectionistic traits. The quality of the studies is generally poor: small sample sizes (ranging from $n = 8$ up to $n = 1,305$), intervention design issues (several studies use TA/TFB concurrently with other interventions), and study design issues (e.g. unclear randomization procedures) are common. In the evidence base for collaborative approaches to assessment including TA, there are also a sizable number of case studies describing the use or implementation of the TA model which anecdotally describe the effects of TFB. Those investigations are reviewed in a separate section.

Symptomatology Effects. Multiple studies examine TFB as an intervention for symptom change and find significant beneficial effects. In a seminal study, Finn and Tonsager (1992) address the RQ "Does telling clients their test feedback benefit them?" A quantitative methodology is used, with an experimental 2 (intervention group) X 3 (time point) repeated measures design. The administration of the MMPI-2 and subsequent TFB is the intervention

being compared to a control group with no testing. The three time points are baseline, post-TFB, and 2-week follow-up. Outcome measures include measures of self-esteem, symptoms, self-consciousness, and an evaluative questionnaire focused on the assessment experience. The results show a significant pre-post decrease in symptoms in the intervention compared to control group at follow-up ($d = 1.00$). The intervention group also had significantly higher ratings of self-esteem compared to control post-TFB and at follow-up. In terms of predictors of change, ratings of the assessment experience are significantly correlated with symptoms and self-esteem at follow-up. Additionally, self ratings of private self-consciousness correlate with symptom change. Based on these findings, the authors conclude that MMPI-2 administration and subsequent TFB have therapeutic impact for college students, and that more research is needed to understand why it is therapeutic. Three key limitations of this study are the relatively small sample size ($n = 61$), the potential confound that the intervention group received more clinical attention due to the MMPI-2 administration, and that the examiner administering the intervention was aware of the study's hypotheses and not blinded to group assignment. To address these criticisms, Newman and Greenway (1997) conducted a replication of Finn and Tonsager's original study. The same RQs, methodology, design, measures, and analysis are utilized. However, in Newman and Greenway's study the design is refined in that both intervention and control groups completed the MMPI-2; the intervention group receives TFB immediately, while the control group receives TFB at a post-study follow-up session two weeks later. This design modification controls for the clinical attention limitation described previously for the Finn and Tonsager (1992) study. Newman and Greenway's study found that for clinical symptoms there is a significant group by time interaction, a main effect of time, and that specifically at follow-up the intervention group has significantly reduced symptoms compared to control. For self-esteem,

there is also a significant group by time interaction, with the intervention group also having significantly greater self-esteem compared to control at follow-up. The authors also found that measures of self-consciousness and initial symptom severity do not correlate with symptoms and self-esteem. However, client's positive experiences with the MMPI-2 are associated with increased self-esteem and decreased symptoms. This replication is significant because not only does it provide further evidence that TA has significant beneficial effects for symptom change and self-esteem, but the modified design of the study also provides support that it is TFB and not the administration of the test that is responsible for the observed effects. The authors theorize that symptom change is caused by clients reframing their understanding of their symptoms rather than an actual decrease in symptom severity, but also emphasize that more research is needed to identify the specific components of TA responsible for benefits.

De Saeger et al. (2014) compared the effectiveness of pre-treatment interventions (TA versus structured goal-focused intervention) for clients with severe personality disorders in a quantitative, experimental study. Clients were randomly assigned by a computer into two equal groups ($n = 37$). Outcome measures for symptom change and client satisfaction were collected pre- and post-intervention, at follow-up after intervention, and at follow-up after post-assessment therapy begins. The results indicate that post-intervention, the TA group has significantly higher outcome expectancy ($d = 0.65$), feels more personal progress from the intervention ($d = 0.56$), has better alliance ratings ($d = 0.46$), and higher satisfaction ($d = 0.68$), but exhibit no significant differences in symptom reduction. This study provides evidence that the collaborative features of TA impact subsequent treatment receptivity compared with another type of pre-treatment intervention and extends the TA literature to more severe client populations as well.

Another study investigating the effect of a TA intervention specifically with borderline personality disorder was done by Morey, Lowmaster, and Hopwood (2010). This quantitative, randomized experimental study compares pre-treatment TA followed by manual assisted cognitive therapy (MACT; $n = 8$) with no pre-treatment intervention with subsequent MACT ($n = 8$) on treatment retention and symptoms. The results show no significant difference between groups in the number of completers or number of sessions attended. There is a significant main effect of time for borderline symptoms and suicidal ideation, and across groups the MACT + TA condition exhibited superior treatment response when only completers are analyzed. Thus, the authors conclude that augmenting MACT with TA does not improve retention but leads to better symptom outcomes. However, the study also has important limitations such as limited statistical power due to the small sample size, lack of follow-up, and lack of a control group.

Ougrin, Boege, Stahl, Banarsee, and Taylor (2013) compared a TA intervention ($n = 35$) with assessment-as-usual ($n = 34$) in a quantitative, randomized, controlled experimental study. In this study however, TA is described as a brief therapeutic intervention based on cognitive analytic therapy. Participants receive ongoing follow-up over a 2-year period on their frequency of self-harm presentations at the emergency room and engagement in health services. The results indicate that although there are no statistical differences between the groups in self-harm presentations, the TA intervention group is more likely to attend psychiatric treatment sessions in comparison to the control group. The study is limited by sample size and power to detect differences, and it is unclear the extent of intervention adherence to Finn's model of TA.

Lastly, Smith, Eichler, Norman, and Smith (2015) investigate the effectiveness of C/TA in the context of mid-therapy consultation using a quantitative, replicated single-case experiment ($n = 10$). This single-case experimental study design is described as a pragmatic approach that

measures outcomes at baseline, intervention, and follow-up for each case. The outcomes of interest are symptomatic distress, assessment process, and therapy outcomes. Idiographic outcome indicators are identified after intake in collaboration with the client. All cases receive C/TA intervention adhering to Finn's model of consultation (Finn, 2007) and a multi-method assessment battery. The results indicate a significant increase in working alliance task ratings after feedback. Analysis of symptom indicators show that 6 of 9 remaining participants experience significant reduction in distress with a moderate intervention effect size ($d = -0.5$). Although this study design cannot establish causation, the findings support mid-therapy C/TA consultation coinciding with significant symptom reduction. The authors theorize that the assessment helps clients feel understood, magnifies therapist empathy for clients, and leads to adjustments to the therapeutic approach, all of which contribute to the observed symptom reduction. However, there are several important limitations to the study such as the small sample size, the use of idiographic indicators with no psychometric information, and a lack of fidelity checks.

Alliance and Relationship Effects. Ackerman et al. (2000) investigated the impact of assessment model (i.e. IG versus TA approach) on rates of termination in therapy, and the role of therapeutic alliance and in-session process on this relationship. This quantitative study employed a quasi-experimental design with an intervention ($n = 38$) and control group ($n = 90$); assignment procedures are described as ecological. The intervention consisted of a psychodynamic, semi-structured diagnostic interview emphasizing collaboration and alliance building. Both client groups participated in the interview, one other session to complete necessary psychological testing, and lastly a feedback session. The intervention group in addition also completed the early memory protocol, an additional follow-up session prior to feedback for Rorschach Inkblot test

administration, and an alternate collaborative feedback session guided by the TA model. Following the feedback sessions for both groups, clients completed measures of process (Session Evaluation Questionnaire), and alliance (Combined Alliance Short Form; Revised Helping Alliance Questionnaire). The results show that a significantly lower proportion of TA (11%) clients compared to IG (33%) clients terminate prematurely during the assessment. Both measures of alliance at the end of assessment significantly correlate with alliance ratings at the third session of post-assessment therapy. This study provides evidence that the TA approach is beneficial in terms of treatment adherence, but is limited by the study design issues such as lack of randomization, the treatment groups having different test batteries, and differential number of participants in the groups.

Allen, Montgomery, Tubman, Frazier, and Escovar (2003) investigated the relationship between TFB, treatment rapport, and client self-enhancement (self-understanding, self-esteem, and self-efficacy). The researchers used a quantitative, experimental design with a sample of 83 university students. The randomization procedures were not articulated. The intervention group is presented with their results on the Millon Index of Personality Styles (MIPS) interpersonal scales while the control group receives no personalized feedback. Scores on the subscales of the Assessment Questionnaire - Revised (AQ-2), Rosenberg Self-Esteem Scale, Self-Liking/Self-Competence Scale, and a custom satisfaction questionnaire are collected as outcome measures. The analysis shows that the intervention group scored significantly higher on the positive relationship, positive accurate mirroring, and new self awareness and understanding subscales of the AQ-2. The intervention group also had significantly higher scores on trait self-esteem and satisfaction but not state self-esteem. This study provides preliminary evidence that TFB leads to better relationships with clients and an improved sense of self. However, some key limitations of

the study intervention are the short length of time for the feedback session (15 minutes), a lack of emphasis on collaboration during feedback, and no baseline data on the outcome measures.

Hilsenroth, Ackerman, Clemence, and Strassle (2002) also investigated assessment and the therapeutic alliance through a quantitative study. A quasi-experimental, controlled design was used to examine the effectiveness of structured clinician training (SCT) on client and therapist alliance ratings in subsequent psychotherapy ($n = 34$) versus treatment-as-usual ($n = 34$).

Assignment is non-random and reflected standard practice at the university counseling centre that the research is set in. SCT involves student clinicians learning the TA approach (emphasizing collaborative goal setting and development of therapeutic bonds) and a psychodynamic treatment approach - the identification of core conflictual relationship themes (CCRT) in a concurrent and integrative fashion. Comparison of the alliance ratings of clients and therapists between the two conditions shows that the SCT group reports significantly greater ratings of therapeutic bond ($d = 0.50$), goal agreement ($d = 0.66$), and overall alliance ($d = 0.52$). The authors theorize that the SCT intervention helps clinicians develop empathic connections and engage clients collaboratively. As a follow-up Hilsenroth et al. (2004) conducted a quantitative study also examining the relationship between assessment interventions and therapeutic alliance. A pre-post longitudinal design is utilized, with clients ($n = 42$) receiving a TA model approach to assessment that also integrated a review of the client's CCRTs. This assessment is then followed by an average of 25 psychodynamic therapy sessions. A patient (CASF-P) and therapist (CASF-T) rated alliance measure was administered post-assessment and also after a select number of therapy sessions (3, 9, 15, 21, 27, and 36). The results of a repeated measures ANOVA analysis show that patient rated alliance trends towards significance, with higher ratings later in psychotherapy compared to earlier sessions. Therapist rated alliance scores

are not significantly different over time. Correlations of CASF-P scores show that patient alliance post-assessment, at early sessions, and later sessions in psychotherapy are all significantly and positively correlated. The authors also retrospectively compare the mean alliance ratings from the study conducted by Hilsenroth et al. (2002) and find TA alliance ratings are also significantly greater post-assessment and after sessions 3-4 in that study. These findings lead to the conclusion that post-assessment alliance is associated with alliance in subsequent therapy, and that the TA approach enhances patient alliance, with the caveat that retrospective data was used for comparison. The authors theorize that the collaborative components of TA promote more rapid alliance development by addressing relational issues and facilitate greater willingness to engage in work later on.

Worthington et al. (1995) extend the literature on the effect of assessment and TFB to couples counselling and relationship enrichment with a quantitative, experimental study comparing a 3-session assessment and feedback intervention ($n = 28$) and written assessment only ($n = 20$). The outcomes of interest are dyadic adjustment and commitment, which are collected at baseline, post-intervention, and four-week follow-up. The results demonstrate a significant group by time interaction for dyadic satisfaction and personal dedication, with superior outcomes in the intervention group compared to control. Based on the findings, the authors conclude that assessments including TFB have slightly better effects on relationship satisfaction and commitment compared to just written assessment. The effect is ascribed to the TFB process stimulating reflection on relationships. Limitations in this study include small sample size and the confounding presence of an additional session with the assessor as part of the intervention.

Tharinger and Pilgrim (2012) extended the research base for TA and TFB to family and child therapy populations with a quantitative, experimental study. In the study, both intervention ($n = 15$) and control groups ($n = 17$) completed a neuropsychological assessment battery. All parent participants received TFB in both conditions, however, in the intervention group an additional feedback session is provided for the child where a personalized feedback fable is presented. The outcome measures were questionnaires targeting parent and child experience of assessment and client satisfaction. The results show that the intervention group has significantly higher ratings on scales related to 'learned new things', 'child-assessor relationship', 'collaboration', 'parent understanding', and 'client satisfaction'. The authors thus state that there is preliminary evidence that providing children with developmentally appropriate feedback impacts their experience of TFB positively. The study is limited by the small sample size and the potential confound of additional time spent with the psychometrist.

Other Session Process Effects. Hanson et al. (1997) conducted a quantitative study with an experimental design examining the effect of two different test interpretation styles on perceptions of the assessment findings and of the assessor. The process measures in the study were the Session Evaluation Questionnaire (SEQ), Counselor Rating Form (CRF), and a thought listing exercise where the number of thoughts relevant to the assessment findings (elaboration) and the number of thoughts aligned with the assessment findings (favorability) are scored. Participants were randomly assigned to two groups: the delivered style group ($n = 11$), where participants are presented TFB as an interpretation based on information from the test manuals, and the interactive style group ($n = 15$), where participants are encouraged to engage in and collaborate in the feedback process. The analyses found that for the thought listing exercise there are no differences between the groups in elaboration and favorability scores. However, there are

significant differences on SEQ depth and CRF scores. From these findings, the authors conclude that testing interpretation styles affects the assessment process in a meaningful way. But the study does not show evidence that client change is influenced by their ability and motivation to process information. In a follow-up quantitative study, Hanson and Claiborn (2006) look at how test interpretation style and favorability of tests results affect clients' thoughts about the results and the assessment process. The study design is quasi-experimental, but group determination procedures are not clearly described. The outcome measures in this study are also the SEQ, CRF, the thought-listing exercise, and acceptance and helpfulness ratings for each assessment result. There were two manipulated factors in this study resulting in four different groups. One factor is delivered versus interactive interpretation styles as described in the Hanson et al. (1997) study and the other factor is positive-only feedback versus mixed (i.e. positive and potentially negative). There were a total of 46 undergraduate participants split into groups ranging from 10 to 13 participants. A 2 X 2 MANOVA analysis showed no significant interaction, or main effect of style, but there is a main effect of favorability driven by acceptance and helpfulness ratings. The positive-only feedback groups had greater acceptance, but the mixed feedback groups rated assessment as more helpful. The authors conclude that TFB style and favorability manipulations do not have a significant impact on changes in thinking for the client. Additionally, there is no evidence in this study that interactive TFB styles are associated with better perceptions of session process. Across both studies the findings relating collaborative TFB to in-session process are mixed. However, both of the studies described above are limited in sample size.

Holm-Denoma et al. (2008) also examined clients' perceptions and reactions to TFB, specifically their affective reactions to diagnostic feedback. A quantitative, pre-post, uncontrolled design is used with consecutive adult clients ($n = 53$), where a measure of emotions

(Visual Analog Scale; VAS) is administered at pre-post intake session, pre-post TFB session, and at the start of subsequent therapy. The intervention is a scripted diagnostic feedback session utilizing information from the Mini International Neuropsychiatric Interview (MINI). There is a significant main effect for positive and negative emotions. There are significant differences between pre-post intake sessions for both positive and negative emotions, but only significant differences between pre-post TFB sessions for positive emotions. This indicates that contrary to expectations, providing diagnostic feedback increases positive emotions and decreases negative ones. The authors state that it is unclear if this positive emotionality is helpful but theorize that clients are affirmed by the feeling of being understood, which may build hope for treatment. Study limitations include drop-out concerns, lack of a control group, and the possibility that the intake session is responsible for the observed findings.

Suicidality. Jobes, Wong, Conrad, Drozd, and Neal-Walden (2005) assessed the effectiveness of a new intervention system for suicidality, the Collaborative Assessment and Management of Suicidality (CAMS) intervention, and compared it to treatment-as-usual on suicide related outcomes, symptoms, hospitalizations, and costs. The CAMS system involves using an assessment tool, the Suicide Status Form, in a manner that emphasizes collaboration and engagement with the client, which further informs treatment planning. The quantitative study employed a retrospective case-controlled design using archival files. There are 25 intervention dyads that used CAMS, and 30 control dyads that did not. Survival function analyses show that while both groups resolved suicidal symptoms, the CAMS group did so in significantly fewer sessions. There are no significant group differences on other variables such as attempts, hospitalizations, symptoms measures, and costs. Based on these findings, the authors conclude that the CAMS system accomplishes symptom alleviation in fewer sessions but there is no

evidence that it is more effective than standard treatment. The acknowledged limitations of the study are a lack of random assignment, uneven group numbers, and treatment fidelity issues.

Addictions. Wild, Cunningham, and Roberts (2007) examine the effect of brief, personalized feedback about clients' hazardous drinking. This feedback intervention utilizes a brief alcohol screening tool, followed by norm-referenced feedback about the client's reported alcohol use. In this quantitative, experimental, randomized controlled trial, participants who had been previously identified as a hazardous drinker were randomly assigned to the feedback intervention group ($n = 678$) or delayed intervention control group ($n = 627$). The findings for the trial show no main effect of experimental condition for per-occasion alcohol consumption, and a trend effect of intervention condition for decreased total alcohol consumption in comparison to the control group. For participants screened as problem drinkers specifically, there are a significantly lower proportion of intervention condition participants that engage in binge drinking behaviours in comparison to controls. In general, the brief normative feedback exhibits no significant effect on alcohol consumption but there is some evidence it impacts binge drinking behaviours. Some limitations for the study include the self-report nature of the measures, a significant proportion of respondents being lost to follow-up (25%), and a lack of information on how respondents reacted to or utilized the feedback.

Neuropsychological Assessment. Fallows and Hilsabeck (2013) addressed the issue of poor follow through on neuropsychological recommendations with a comparative study of two methods for delivering feedback. This quantitative study used an experimental design that randomized participants into an oral feedback group ($n = 36$) and an oral and written feedback letter group ($n = 30$). Participants were evaluated on their recall of assessment information and recommendations after the feedback session and at one-month follow-up. The findings show no

differences between groups in their recall of cognitive problems, etiology, and prognosis both after feedback and at follow-up. There are no differences in recall of recommendations initially but the written group recalled more recommendations than the oral group at follow-up. The study finds few differences between conditions, and is possibly limited by the performance of participants diagnosed with dementia as well as a floor effect on recall. The lack of a no-feedback control also limits conclusions that can be drawn from this study about neuropsychological TFB in general.

Vocational Assessment. Luzzo and Day (1999) conducted a quantitative, experimental study with random assignment to evaluate the effects of administering the Strong Interest Inventory (SII) with self-efficacy enhancing feedback and interpretation to clients on career beliefs related outcomes. There were three study groups, SII completion and feedback ($n = 52$), just SII completion ($n = 22$), and no intervention control ($n = 25$); each group completes measures of career related self-efficacy and career beliefs pre- and post-assessment. ANCOVA and post-hoc analyses with pre-test baseline scores as covariates show that the feedback group has significantly higher self-efficacy scores than the SII completion only and control groups. The feedback group also has significantly greater beliefs related to personal responsibility and greater willingness to work hard at career decision making. The authors theorize that the feedback intervention builds client perceptions of their own career related self-efficacy. However, there are several key limitations in the study such as low sample size, unbalanced groups, therapist effects, and concerns with adherence.

Essig and Kelly (2013) also examined the impact of TFB approach with career assessment on the outcome of reducing career indecision. In this quantitative, experimental study without randomization there were two study groups – the IG condition group ($n = 12$) and the TA

condition group ($n = 11$). The researchers used one-way ANCOVA and ANOVA analyses and found that no differences between conditions on measures of career related self-efficacy, anxiety around career choices, or ratings of feedback helpfulness. However, the analysis did show that the TA condition participants report greater increases in their sense of vocational identity following feedback. The authors of the study theorize that the observed effect is caused by participant's experience of self-verification of existing knowledge and/or beliefs from the feedback. Limitations of this study include low sample size, high attrition rate, potential counsellor effects, and lack of long-term follow-up measurement.

Industrial/Organizational Psychology. Boudrias, Bernaud, and Plunier (2014) investigate the process of individualized psychological assessment and TFB from an industrial/organizational perspective using structural equation modeling. In their study, participants are job candidates that undergo psychological assessment with written and verbal TFB ($n = 178$). Participants then complete a survey that quantitatively measures their beliefs about feedback accuracy, cognitive integration of feedback, and motivation, which are concepts that are part of the author's theoretical model of assessment feedback integration. The author's proposed model specifies that message valence and face validity lead to feedback acceptance, which in turn facilitates motivational intention; source credibility and challenge interventions lead into awareness, awareness also leads into motivational intention, which continues to behavioural change and developmental activities. Data analysis supports each aspect of the structural model except feedback acceptance into motivational intention which was not significant. Based on this study, the authors propose that the effectiveness of TFB is related to increased awareness due to testing.

Perfectionism. Aldea, Rice, Gormley, and Rojas (2010) studied the interaction between perfectionistic traits, TFB process, and feedback integration. Their quantitative study employed an experimental design with randomization to a TA feedback condition ($n = 34$) or a no-feedback control condition ($n = 25$). All participants were pre-screened and identified as maladaptive perfectionists; the feedback provided to participants was based on the results of this pre-screening. Study outcomes include psychological symptoms, self-esteem, and emotional reactivity, which was collected post feedback and at two-week follow-up. A hierarchical linear modeling (HLM) approach to analysis was used, which found that the study condition is a significant negative predictor of distress scores and emotional reactivity at follow-up. Those in the feedback group also report significantly less symptoms and less emotional reactivity at follow-up. Treatment condition is not predictive of self-esteem scores. The authors conclude that the study supports TA as an intervention for perfectionism and theorizes that the TA approach to assessment leads to client self-verification of perfectionistic traits, increased personal relevance, and thus increased motivation and empowerment.

Case Study Evidence for Therapeutic Assessment

In addition to the primarily quantitative, efficacy based studies of TFB, the TFB and TA literature also includes a large number of detailed case studies outlining the process and implementation of the TA model across diverse settings, client issues, and individual client contexts. The relevance of these TA case studies to this literature review is connected to the unique importance ascribed to TFB in the TA model (Finn, 2007). This review identified 19 studies using case study to investigate TA and TFB. These case studies are often examples of single case experimental study designs, which are pre-post investigations of a single case. In this study design outcome measures are used or idiosyncratically developed in collaboration with the

client (e.g. the Behavior Assessment System for Children [BASC] for daily measurement of symptom change on a 1-9 Likert scale); and then data is collected on these indices for a baseline period, throughout the intervention, and during follow-up. Changes in symptom severity and the rate of symptom change are analyzed using simulation modeling analysis - an analytical approach specific to single case time series designs. These single case experimental design studies are used extensively by Justin D. Smith and his colleagues to investigate the TA process across a variety of contexts. Case studies using this design are presented with participants such as preadolescent boys with oppositional defiant disorder (Smith, Handler, & Nash, 2010), family therapy (Smith, Nicholas, Handler, & Nash, 2011), a family with an adolescent (Austin, Krumholz, & Tharinger, 2012), a woman diagnosed with metastatic cancer (Smith & George, 2012), and a lonely adult (Aschieri & Smith, 2012). Analyses across these studies show improvement over time on a variety of indices, including: expressed affection, anxiety, anger, all BASC scales, family cohesion, family communication, more positive emotions, less negative emotions, positive relationships with clinicians, as well as amalgamated composite scores of treatment indices. Slope change analyses show that the slope of change for symptomatic improvement shifts significantly at the onset of or during the TA process and this shift is maintained through follow-up.

These published case studies using TA demonstrate the flexibility of the approach in accommodating the individual context of each client. These cases provide examples of how the TA model can be shaped and modified to emphasize work with different populations and situations. For example, these studies showcase anecdotal instances of psychological assessment approaches incorporating a collaborative stance with children and families (Hamilton et al., 2009; Smith, Wolf, Handler, & Nash, 2009; Smith et al., 2011; Tharinger et al., 2008; Tharinger,

Finn, Wilkinson, & Schaber, 2007), with foster children and their parents (Purves, 2002), with adolescents and their families (Austin et al., 2012), with adolescents specifically diagnosed with oppositional defiant disorder (Smith et al., 2010), with outpatient clients diagnosed with eating disorders (Lopez, Roberts, Tchanturia, & Treasure, 2008; Michel, 2002), with culturally diverse clients (Guerrero, Lipkind, & Rosenberg, 2011; Rosenberg, Almeida, & MacDonald, 2011), with clients diagnosed with cancer (Smith & George, 2012), with patients diagnosed with serious mental illness (Tiegreen, Braxton, Elbogen, & Bradford, 2012), and with inpatient clients diagnosed with narcissistic personality disorder (Hinrichs, 2016). The flexibility of the TA approach arises from clinicians' and researchers' ability to modify the specific implementation of the model while maintaining the spirit and principle of the TA approach. For example, Tharinger et al.'s (2007) case study of TA with children and families includes the basic components of TA: the initial development of assessment questions with the parent, collaborative administration of psychological tests, an assessment intervention session, summary and discussion of the results with the parents, and a written feedback letter. However, in the interest of enhancing the spirit of collaboration in the assessment process, additional modifications to the process are implemented as well. Tharinger et al. (2007) describe two clinicians working with the clients: one with the child and one with the parents. Additionally, the parents are invited to observe the testing sessions and their feedback is elicited after each one. During this time emotional support is provided to the parents and the clinicians offer personality assessment as appropriate. Also, the typical number of sessions for TA is extended to accommodate testing with a child. Lastly, feedback is presented separately to the parent as well as the child in the form of a personalized fable (Tharinger et al., 2008).

TA can also serve different generalized functions in the practice of psychotherapy including as a stand-alone intervention for self-referrals (Finn, 2007), as a tool that facilitates an empathy magnification process (Finn, 2007), and as part of a consultation process (Finn, 2003). Wygant and Fleming (2008) present a case study that exemplifies the use of the MMPI-2 Restructured Clinical scales to enhance empathy. The case participant is a 25 year man recently released from a crisis ward and seeking therapy for depression and anxiety. His MMPI-2 clinical scale profile elevations fit no obvious code type but are indicative of general emotional turmoil, which is challenging to interpret. However, the restructured clinical scales suggest that the client is pessimistic, socially detached, experiencing a broad range of negative affect, is sensitive to criticism, and has a tendency to ruminate. This understanding enables the clinician to tailor the TFB process by emphasizing a more compassionate stance in consideration of the client's tendency to perceive others as critical, which is an example of empathy magnification. Finn (2003) utilizes a case study to illustrate the integration of a TA consultation with therapy. This consultation has two potentially beneficial purposes: first, to answer the therapist's diagnostic questions and the client's relationship questions; and second, to clarify therapy that is lacking a clear focus. In the case, both the client and consulting therapist are wondering about a diagnosis of attention deficit disorder (ADD). The therapist states she is less experienced with psychodiagnostics and expresses concern about making such a diagnosis for the client. The client reports long standing attention, concentration, and organization problems. Testing with the MMPI-2 and Rorschach Inkblot test suggests that the client experiences severe anxiety and cognitive disruption, a fear of being alone or doing terrible things, and copes by staying busy and social. The profile describes the client as sensitive, gregarious, with lots of superficial friendships, finds it hard to trust others, and has a history of caretakers that are unpredictable,

unreliable, and critical. The consultant assessor explores a working hypothesis that the client's cognitive abilities are impacted by emotional distress in an assessment intervention session. The consultant also collaborates with the therapist in the process of TFB, which includes normalizing and validating the therapist's struggles, summarizing answers to therapist's questions, and engaging in discussions on how to proceed in therapy. In the feedback session itself, the consultant summarizes findings with the client and explores his reactions to the feedback. This case provides anecdotal evidence that the TA approach can be successfully integrated with ongoing therapy.

Overall, the case study evidence for TA richly describes and demonstrates the utility and flexibility of the TA approach and provides concrete examples of a collaborative and client-centered approach to TFB across a variety of contexts that stimulates the creativity of clinicians.

Summary of Research

There are a total of 48 empirical studies reviewed in this section, the majority of which employed quantitative methodologies ($n = 30$), followed by qualitative methodologies ($n = 16$), and a small number of recently conducted mixed methods studies ($n = 2$). Of the 30 quantitative studies, half employ experimental designs ($n = 15$) and a notable proportion are single case experimental design case studies ($n = 7$); other designs for these quantitative studies include quasi-experimental, surveys, pre-post, and structural equation modelling based investigations. Samples sizes are quite variable across studies, ranging from $n = 8$ to $n = 1305$. Dependent variables, instruments, and data collection methods varied greatly: ranging from online surveys about training methods to measures of therapeutic process to measures of symptom change to even idiographic measures determined on a case-by-case basis. Of the 16 qualitative studies, nearly all of them are single subject case studies written to illustrate the application of TA ($n =$

14). The two exceptions are Ward's (2008) investigation of perceptions and attitudes toward psychological assessment and TFB using interview methods and Smith and Egan's (2015) study of a doctoral course on TA through the analysis of student comments. The two mixed methods studies are both sequential explanatory design studies with an initial quantitative survey phase followed by an explanatory qualitative interview phase.

Overall, this literature review demonstrates that there is a growing and multi-faceted evidence base for the effectiveness of TA and by extension the TFB focused practices that form a core component of TA. The existence of a thorough and defensible meta-analysis of psychological assessment as a therapeutic intervention (Poston & Hanson, 2010; Hanson & Poston, 2011) and the 15 experimental studies of the effectiveness of TA of varying degrees of rigour provide an empirical foundation for the theoretical claims of the TA approach. The qualitative research body demonstrates the flexibility inherent in the application of the TA approach to variety of clinical contexts, individual circumstances, and pertinent clinical issues.

The Present Study

The purpose of this case study thesis investigation is to deepen understanding and insight towards Canadian psychologists' perceptions of TFB. This will be accomplished by examining their attitudes and beliefs surrounding usage of TFB, factors that influence TFB practices, and TFB training. This study extends the work of Jacobson et al. (2015) with a secondary analysis of open-ended survey comments collected during the original study. Data included here were not analyzed in the original study, and while they are atypical for qualitative research, they are still potentially rich and informative. There are several potential benefits of conducting a secondary analysis with this dataset. This study can build on questions raised from the original study through a more focused analysis with more targeted and specific research questions thereby

strengthening empirically grounded findings that arose from the primary analysis. Approaching the dataset from a new analytical perspective that is distinct from the original data collection context broadens the exploration and examination of the central phenomenon. Lastly, this study offers the opportunity to maximize the utility of the original data collection and represents efficient use of the dataset (Ziebland & Hunt, 2014). The primary significance of this study is threefold: to obtain a nuanced and experiential understanding of how psychologists use TFB, to elucidate the nature of effective TFB practices, and to inform training programs on how to teach TFB.

Research Questions

- 1) What are Canadian Psychologists' perceptions of TFB? (Overarching RQ)
- 2) How do Canadian Psychologists' perceptions explain their use and practice of TFB?
- 3) How do factors such as area of practice, helpfulness of training, and type of training influence the practice of TFB?
- 4) How is training in TFB for Canadian psychologists primarily practical?

Accordingly, to answer these questions, the study uses an exploratory, qualitative methodology and case study design. The qualitative sphere is characterized by a constructivist philosophy, acknowledgement of research bias and researcher-as-instrument, inductive analysis of rich textual or image data, emphasis on individual participants' meaning, engagement in interpretive inquiry, and research findings that represent a holistic, composite picture of the central phenomenon (Creswell, 2009). Qualitative methodology and philosophy are well suited to investigating an experiential and subjective phenomenon, such as participants' attitudes and beliefs about TFB. The data that is used in this study is also in the form of textual information that reflects participant experience. Design-wise, the study uses a variant of case study, with

survey based data collection and CQR analyses. According to Creswell et al. (2007), case studies are useful for answering descriptive questions in that it enables researchers to obtain an in-depth understanding and insight about a specific topic or phenomenon through the focused investigation of unique cases – with each case serving as parts to a whole. Case study research involves exploration of a specific example or bounded system, or multiple systems in an in-depth manner, often using multiple sources of data. The specific type of case study employed here is the instrumental case study, which is a case study with the intent of better understanding a specific issue, problem, or concern. In an instrumental case study, cases are selected with this intent in mind (Stake, 1996). The final product is a broad interpretive understanding of a phenomenon often drawing on commonalities across cases.

Chapter 2: Method

Participants

A census sampling approach of the Canadian Psychology Association (CPA) membership directory was used, resulting in a list of 2,763 potential participants that were surveyed. A total of 433 responses were returned, and 34 surveys excluded from the analysis because they did not meet inclusion criteria for the study. The inclusion criteria for the survey were: respondents must be licensed/registered psychologists, currently administering psychological assessments as part of their practice, and CPA members in good standing. The participants were 399 licensed Canadian psychologists, for a response rate of 14.4%. A slight majority of respondents were female (64.9%) and many identify as European-Canadian/White (90%). The majority were affiliated with clinical psychology (54.1%), followed by school psychology (21.8%) and counselling psychology (15.2%). Most of the participants hold PhDs (76.9%), though some possess PsyDs (2.5%) or are Masters level clinicians (12.8%). Forty-three percent of respondents work in private practice. Participants typically use assessments to answer referral questions (79.4%) and/or for diagnostic purposes (69.2%), and use three or four different tests in each assessment. Out of the 399 respondents, 247 provided written narrative responses to the open-ended survey questions.

The core analytic research team for this study is comprised of four counselling psychology graduate students – two at the Masters level (Angie Allan and Hansen Zhou) and two at the Doctoral level (Diana Armstrong and Kristy Dykshoorn). The auditor for the analysis is also a counselling psychology graduate student at the Doctoral level (Terilyn Pott). Hansen Zhou is the author of this thesis; I am in the second year of the Masters degree in counselling psychology and I have received training on TA from a practicum course. I am also aligned with TA values

and subscribe to the TA approach in my psychological assessment practice. Angie Allan is a first year Masters student in counselling psychology; she has no prior experience with TA or psychological assessment in general. Diana Armstrong is a first year Doctoral student in counselling psychology; she has extensive experience with psychological assessment in an inpatient setting and has also completed a practicum course on TA. Kristy Dykshoorn is a third year Doctoral student in counselling psychology; she also has significant experience with assessment, primarily psycho-educational. Finally, Terilyn Pott is a second year Doctoral student in counselling psychology; she is a registered psychologist in Alberta and has also received practicum course training in TA.

To facilitate the clarity and trustworthiness of the consensus process for this study, prior to the first meeting, each member of the core analytic research team prepared a statement of biases and expectations related to the topic - TFB and psychological assessment in general. There are some themes shared across these statements. Three of four members of the team have past experience with providing TFB from the TA and/or more traditional information gathering approach. Three of four members also clearly describe values in alignment with Finn's TA model including collaboration with the client, being open and transparent with clients about findings, and using the assessment as an empathy magnifier (Finn, 2007). Additionally, three of four members express a positive view of TFB, stating that it could be beneficial to clients and guide their future treatment. Two members of the team have completed training specifically on the TA approach. Two members of the team mention how assessments can be harmful when done inappropriately (e.g. reducing people to labels), and two members of the team also specifically discuss the relationship between assessment and diagnostics. To summarize, the analytic team is experienced with providing TFB and has a generally positive view of the

activity, although one member has no prior experience. Most of the team members express TA consistent values, and two members have even received specific training on the TA model.

The core analytic team participated in a total of nine team consensus meetings for a total of 17 hours spent on consensus coding and discussion. Discussions were documented through meeting minutes by a designated person at each meeting. Additionally, each team member conducted individual coding in preparation for team consensus meetings. The number of hours each individual spent independently coding was not documented.

The typical methods to address and ensure researcher reflexivity such as memoing or maintaining an ongoing research process journal were not utilized in this study. Researcher reflexivity is defined as the recognition of the researcher's bias and subjective interpretation of the data and critical reflection on the researcher's interpretation and their role in generating knowledge (Braun & Clarke, 2013). My own efforts to maintain researcher reflexivity involved reflecting on my own biases at the start of the study in a reflective statement, and recording meeting minutes at each consensus meeting and reflecting on the discussion and team dynamics between meetings.

Measure

The survey from Jacobson et al. (2015) has 40-items that examine participants' utilization of assessments in practice, purposes underlying use of assessments, contexts of assessment use, instruments used, and the extent to which participants' engage in aspects of Finn's (2007) TA model. Additionally, the survey items inquire about general TFB practices, including format of TFB delivery, intentions around clarifying test results, utility of graduate and post-graduate training in learning to provide TFB, the primary format of training, and demographics. Lastly, there are two open-ended items inviting respondents to comment on the topic of TFB. One open-

ended question asks respondents: *"Are there any other uses of psychological assessments that apply to your practice? If so, please describe them below."* There were 129 participant comments in response to that question. The second open-ended question asks respondents: *"Is there anything else you believe is relevant to the practice and/or training of psychologists providing clients with test feedback that was not sufficiently covered in this questionnaire? If so, please describe it below."* There were 118 participant comments in response to that question. These 247 rich responses are the primary source of data for the present study. And, of note, they were not included in the Jacobson et al. (2015) analyses.

Procedure

This study uses a modified form of the Consensual Qualitative Research (CQR) analytic procedures as described by Hill, Thompson, & Williams (1997), and Hill et al. (2005). CQR analytic procedures are intended to generate a linguistic description of a phenomenon through focused study of a small number of cases. As a qualitative approach, CQR has constructivist philosophical assumptions with some post-positivist elements. There is an emphasis on the socially constructed nature of both reality and meaning. The approach recognizes the effect of the researcher's expectations and biases on interpreting data. As such, the central component of CQR analysis employs a strategy of using a team consensus process to making judgements and data interpretation and in this way account for researchers' individual biases. The process of analysis in CQR is inductive and iterative, and centers on this team consensus based coding method.

In this study, a research team consisting of myself and three other Masters and Doctoral graduate students apply the procedures for CQR analysis to the dataset of open-ended survey comments. I chose the CQR analytic method for four reasons. The primary reason for employing

CQR is that the team-based consensus coding process improves the trustworthiness and defensibility of the data interpretation by accounting for individual team member's biases on the topic of interest. Secondly, CQR is a relatively new procedure, and thus pushing the boundaries of its application may contribute to the field from a data analysis and methods perspective. Thirdly, I am a novice at qualitative researcher, therefore having analytic team members with more research experience, as part of the consensus building process, facilitates my own reflexivity in interpreting data and forming conclusions. Fourth and finally, the structured, step-by-step nature of the CQR analytic procedure facilitates the research project by simplifying the analysis and providing justification for rigour in this study. Studies have set a precedent in applying the CQR analytic procedure to data sets with a large number of cases. For example, Stanghellini et al. (2014) investigated occurrences of abnormal bodily phenomena in patients with schizophrenia by analyzing data from $n = 550$ clinical interviews. In that study, the CQR method is used to accomplish a specific task: to identify and classify different categories of abnormal bodily phenomena from a large amount of data.

After the core analytic team was assembled, the comment data was obtained from the primary researcher that originally conducted the Jacobson et al. (2015) study in the form of open-ended survey comments. These comments were organized into spreadsheet and distributed to the entire analytic team. The analytic process itself consists of 3 main steps, described below.

Domain coding. The core analytic team utilized an initial "start list" of domains or initial topic areas identified based on literature review or the survey questions themselves. During this phase of the analysis, additional domains are also generated by individual team members and discussed during the consensus meetings. The four members of the research team independently coded at least 25% of the total number of comments into domains ($n = 75$ in this study).

Comments selected for the consensus coding were chosen based on greater length and perceived complexity. During consensus meetings the team discusses the domain designation for each reviewed comment until agreement was reached amongst all members. This resulted in the following domain list: “Attitudes and Beliefs”, “Effectiveness”, “Ethics”, “Feedback”, “Training”, and “Use and practice”. The author (HZ) then completed the domain coding for the remaining comments.

Core idea abstraction within domains. The core analytic team independently reviewed the raw comments within each domain and develops a clear, concise summary version of each selected comment. The team then discussed these abstractions in consensus meetings until a consensus version for each comment is reached. The author (HZ) then completed core idea abstraction for the remaining comments.

Cross-analysis. The core analytic team examined the consensus core idea abstractions within each domain to identify themes or patterns within the data. Each team member then independently conducted a thematic analysis on abstracted comments to generate categories. This theme creation involves looking for similarities across the comments for each domain. The team consensus process was then employed to refine the independently developed categories. Afterwards, the author (HZ) completed the cross-analysis for the remaining comments.

Auditing. The consensus domain coding, core abstraction, and cross analysis for the selected comments are reviewed by a researcher external to the core analytic team. The auditor (Terilyn Pott) provided feedback to the core analytic team on the accuracy of the coding, potential biases, and adherence to the CQR analytic procedure. This feedback was considered by the team in a consensus meeting and necessary changes to the coding were made. The finalized categories are described in a general written narrative that also outline the typical themes within

each domain with supporting evidence from the comments (see Chapter 3). The team also discussed the presentation of the results.

Chapter 3: Findings

The overarching RQ for this study is “What are Canadian Psychologists’ perceptions of TFB?” Within this primary RQ are three secondary guiding RQs: (1) “How do Canadian Psychologists’ perceptions explain their use and practice of TFB?” (2) “How do factors such as area of practice, helpfulness of training, and type of training influence the practice of TFB?” and (3) “How is training in TFB for Canadian psychologists primary practical?” Table 1 summarizes the domains, categories, and number of cases for each category. As mentioned before, the CQR analytic method identifies general content domains for the textual data, and within those domains the analytic team generates categorical descriptions through a consensus based cross-analysis process. The findings for RQ1 are encompassed by the domains of "Attitudes and Beliefs", "Ethics", and "Use and Practice". The "Use and Practice" domain contains descriptive information on the specific contexts where respondents' utilize assessment and TFB as well as descriptions of how these practices are encompassed within general clinical activities. Both the "Attitudes and Beliefs" and "Ethics" domains then build on this description of clinical practice by outlining respondents' concerns and issues with current practice. The results for RQ2 are captured by the domains of "Feedback" and "Training". The "Feedback" domain encompasses respondents' discussion of how their area of practice influences how they deliver TFB. The "Training" domain addresses inadequacies of training and how it can serve as a barrier for TFB provision. The answers for RQ3 are primarily summarized by the "Training" domain as well. In that domain, respondents discuss their experiences with training, what aspects are helpful, and identified gaps in current TFB training. Finally, the domain of "Effectiveness" summarizes important information about respondents' opinions of effective TFB practices, which do not fall under the purview of any of the three sub-questions but is within the over-arching RQ of "What

are Canadian Psychologists' perceptions of TFB?" As such, this domain is summarized separately.

Hill et al. (1997) establishes criteria for interpreting categories based on frequency; hence, the post-positivist angle. A category is considered *general* when it applies to all cases, as *typical* when it applies to more than half of the cases, and as *variant* if it applies to less than half. Categories that only apply to one or two cases are labelled *invariant* and are excluded from the findings based on that criterion. In this study, Hill et al.'s guidelines required modification because the cases are open-ended comments to a survey. As such, the individual cases rarely encompassed more than one category. I decided to modify Hill et al.'s criteria for categories to count the frequency *within* each domain (i.e. a *general* category applies to all cases within the domain, *typical* applies to over half, and *variant* applies to under half but greater than two) so that the findings could be presented and discussed more meaningfully. One additional consideration in the analysis is that information on the context of the participant comments (e.g. the demographics of the specific participant that made the comment, their work setting etc.) is absent due to anonymity procedures for participant confidentiality. As such the context of the comments is not a factor in the analysis and reporting of findings.

Table 2

Cross-analysis of survey data on psychologist perceptions of TFB

Domain and Category	Number of Cases
<i>Attitudes and Beliefs (11 cases)</i>	
Best clinical practice	5
Concerns around testing	6
<i>Effectiveness (28 cases)</i>	

Test Feedback Attitudes	52
Collaborative approach to feedback	3
Integrated interpretation of testing	4
Presentation of findings	7
Tailoring feedback to the client	8
Value of feedback	3
<hr/>	
<i>Ethics (11 cases)</i>	
Competency in assessment	4
Standards of practice in assessment	7
<hr/>	
<i>Feedback (23 cases)</i>	
Context dependent	4
Feedback to third party	8
Feedback to caregivers	8
<hr/>	
<i>Training (44 cases)</i>	
Academic training	3
Experiential training	17
Feedback skill development	11
Gaps in training	14
<hr/>	
<i>Use and practice (138 cases)</i>	
Clinical psychological assessment (e.g. Rorschach Inkblot test)	5
Facilitating clinical practice	57
Forensic/legal assessment (e.g. child welfare related testing)	18
Health psychological assessment (e.g. independent medical examinations)	11

Industrial/organizational assessment (e.g. assessments for hiring)	14
Neuropsychological assessment (e.g. psychophysiological testing)	7
Psycho-educational assessment (e.g. tests for learning disabilities)	23
Testing	3
Vocational assessment (e.g. the Strong Interest Inventory)	7

Note: Categories with 2 or fewer cases were labeled invariant and are not presented in this table.

Research Question 1: How do Canadian Psychologists' perceptions explain their use and practice of TFB?

Use and Practice

Psychologists report practicing assessment and TFB in a variety of areas. This is encompassed in eight variant categories. One variant is clinical psychological assessment, which includes personality testing and work on hospital psychiatric units. Another variant is forensic/legal assessment, which ranges from conducting assessments for personal injury claims to government benefits eligibility assessments to court-ordered assessments. Health psychological assessment, which covers assessments for independent medical examinations to assessments for surgical readiness to rehabilitation related assessment work.

Industrial/organizational assessment, which encompasses assessments conducted in a workplace setting, especially assessments used in hiring processes. Another variant is neuropsychological assessment, where assessments are used for cognitive rehabilitation planning, neuropsychological diagnosis, and capacity decisions. The psycho-educational assessment variant category describes how assessments are used to identifying students' educational needs and unique abilities for educational planning, for accessing resources for individuals with

intellectual disabilities, and for working within school settings. The vocational assessment variant category includes the use of assessment in career counseling and vocational interest exploration (e.g. using the Strong Interest Inventory). Finally, one small variant category has comments that list the specific tests that psychologists used, such as the various Wechsler scales and the Beck Depression Inventory-II.

Another variant category is psychologists describing the functional purposes of assessment and TFB, such as using assessment to inform treatment planning and generate clinical hypotheses. Other purposes for psychological assessment noted in this category are helping to form treatment recommendations, to monitor progress, to screen for disorders and symptoms, to diagnose disorders, to help clients and caregivers better understand the client's issues, to conduct risk assessments, and to facilitate multicultural work. The following comment captures some aspects of the multifaceted function ascribed by psychologists to assessment:

Assessment results can be used to demonstrate a reality to a client e.g. intellectual ability. It can also help answer questions clients have, such as "what should I do to further my vocational life?" Assessment results also provide information and raise awareness to the client about their problems. Finally assessment results can provide a professional opinion, e.g. reading reports to insurers etc.

Attitudes and Beliefs

Psychologists typically report concerns related to testing practices, expressing beliefs that psychologists are over-interpreting test results, over-relying on reporting percentile ranks, and over-emphasizing intelligence testing. There are strong statements conveying the gravity of this concern such as in this comment: "*The practice of assessment has become absurd, and needs to be seriously rethought.*"

A variant category related to psychologists' beliefs about what constitutes best clinical practice is also present, for example this comment that encompasses the nuanced process behind the practice of assessment: “[*Integrating test results*] can be seen as a puzzle where many aspects are pulled together and the psychologist can provide one particular way of integrating the information to make sense of the referral concerns.” This category has a wide range of content associated with good clinical practices, such as: writing assessment reports that are useful and understandable to clients, integrating test results with client history and presenting concerns, and explaining the implications of testing to clients.

Ethics

Psychologists' typical TFB related ethical concerns revolve around awareness and knowledge of the relevant professional standards for assessment, in particular, the regulatory requirement that TFB must be provided in an understandable manner. This concern is captured in the following comment:

Particular regulatory Colleges, in Canada and the United States, have positions on providing feedback as part of the assessment process. It's unclear how many practicing psychologists are aware of their College's positions on this practice and understand their obligation in adhering to this standard of practice.

There is also a variant category encompassing psychologists' concerns about practitioner competency with psychological assessment. These ethical issues range from incorrectly interpreting intelligence tests, to inadequate psychometric training, to the use of psychological assessments by untrained human resources staff in corporations, and using tests with populations that it has not been standardized on.

Research Question 2: How do factors such as area of practice, helpfulness of training, and type of training influence the practice of TFB?

Feedback

In the domain of Feedback there are three variant categories: feedback to third parties, feedback to caregivers, and context dependency. Feedback to third parties refers to situations where psychologists provide TFB to a third party instead of the testing client. For example: *"In forensic assessment, the test results go to lawyers and then through the lawyers to the client themselves."* Another example of this third party scenario is in the industrial/organizational setting, as one respondent noted: *"With industrial-organizational psychology, the client is usually the organization and it is the organization that receives the feedback."* Feedback to caregivers refers to a similar situation where the psychologists' testing client is a child and in such a case, TFB is given primarily to the caregivers. Lastly, the psychologists discuss how TFB often depends on the context where it is delivered, as this comment noted: *"The kind of feedback delivered is often contingent on the type of client - child, adolescent, adult etc."*

Training

Psychologists discuss TFB training under four variant categories. However, in addressing this RQ, only the variant category of current gaps in training will be discussed. Psychologists recognize several gaps in current TFB training practices. One psychologist states that: *"Testing feedback is an important area and doesn't get enough coverage in training programs. Some psychologists state they were self-taught."* Other areas in current TFB training deemed inadequate by psychologists include delivering verbal feedback, communicating bad news, developing a personal assessment approach, and conveying the implications of results to clients.

One comment also expresses concerns about academic instructors themselves lacking training and experience with assessment.

Research Question 3: How is training in TFB for Canadian psychologists primary practical?

Training

The remaining three variant categories within this domain are training through academic sources, experiential training, and the TFB skills that psychologists should have. Academic sources of TFB learning are identified as readings, class discussions, and conversations with professors. Many psychologists also mention experiential forms of TFB learning, such as practicum, internships, and employment, as impactful in their education. For example, one respondent states that: *“Psychologists learn a lot from their supervisors post-graduation and continue to work on their feedback techniques via self-study, conferences, and peer consultation.”*

Psychologists also outline TFB skills that should be a part of training, such as developing an effective feedback style, delivering bad news to clients, communicating results to clients in an understandable manner, and integrating test results with other sources of information to form a comprehensive assessment.

Effectiveness

Five variants encompass psychologists' descriptions of what practices constitute effective TFB practice. Firstly, adopting a collaborative approach that involves clients in the TFB process, as exemplified by this comment: *“A lot of additional information can be gathered while discussing test results. It can be described as ‘putting our heads together to figure out what is going on.’”* Psychologists also place emphasis on the test interpretation process, specifically the integration of information test results with other sources like client history and presenting

problem. Psychologists' responses also indicate the presentation of results is important, this includes discussion of both the how of presenting results effectively (i.e. visually) and the why of whether results should be shared at all. For example, one comment stipulated that "*an issue in assessment is whether to provide feedback to clients who have performed poorly on measures of effort/performance.*"

The most frequent category in this domain is the concept that TFB needs to be tailored to the client to be effective. This is exemplified in the following comment:

It's an art to take something that consists of a lot of theory and technical information and to turn it into something that an untrained person will understand and then use as a springboard for next steps. Psychologists need to find more down to earth phrases, and descriptors that make sense to most people when explaining results.

Finally, psychologists also appreciate the value of providing TFB to clients. One comment describes the value of: "*[Providing] feedback with compassion [in that it] serves as a starting point for change/treatment.*"

Narrative Summary of Findings

In the CQR method, a narrative description of the typical process of the phenomena supported with a prototypical case example concludes the presentation of the findings (Hill et al., 1997). Given the nature of cases in this study, a general narrative summary of Canadian psychologists' perceptions of TFB is presented rather than a specific case.

Canadian psychologists use assessment and TFB in a variety of practice areas such as forensic, neuropsychological, and psycho-educational settings, as well as for a variety of purposes such as facilitating treatment planning, diagnostics, and enhancing client understanding. Psychologists consider TFB to be a key aspect of clinical practice, noting that

integrating test results, tailoring feedback to the client, and communicating findings in an understandable manner are important for effective clinical practice. However, psychologists also express concerns about the current state of clinical practice. According to respondents, the practice of assessment and TFB is plagued by misinterpretation of test results, misrepresentation of implications, and a lack of awareness about the standards of practice. Finally, psychologists emphasize that the practice setting and context is highly influential on clinical practices. For example, in a forensic setting, the client and the individual person being tested are often not one and the same and as a result direct TFB and debriefing is viewed as inappropriate. Psychologists' generally regard their training for TFB provision, particularly verbal TFB as inadequate. Oftentimes, respondents state they learned TFB skills experientially, either during practical training under supervision or through a process of self learning.

Chapter 4: Discussion

The purpose of this secondary analysis thesis study is to obtain a deeper understanding of Canadian psychologists' perceptions regarding TFB. This is accomplished through a rigorous analysis of open-ended survey comments via CQR analytic procedures (Jacobson et al., 2015). The results of this analysis answers the RQ: "What are Canadian psychologists' perceptions of TFB?" and more specifically provides explanatory information on three sub-RQs: "How do Canadian Psychologists' perceptions explain their use and practice of TFB?", "How do factors such as area of practice, helpfulness of training, and type of training influence the practice of TFB?", and "How is training in TFB for Canadian psychologists primarily practical?"

In the original Jacobson et al. (2015) study, the vast majority of Canadian respondents (greater than 90%) indicated that they frequently provide TFB, make deliberate efforts to ensure clients understand feedback, highlight implications, and provide opportunities for clients to ask questions. The results from this investigation corroborate the original findings by showing that psychologists conduct TFB and psychological assessment in a variety of settings ranging from health psychology to forensic to psycho-educational settings. Psychologists also describe beliefs that TFB practices such as integrating and interpreting test results and communicating assessments results in an understandable manner is vital. Additionally, psychologists are concerned that many in their profession are not aware of provincial and national standards of practice in assessment requiring the provision of feedback following psychological testing. For example, in the Canadian Code of Ethics for Psychologists one standard stipulates that psychologists should "Provide suitable information about the results of assessments, evaluations, or research findings to the persons involved... This information would be communicated in understandable language" (Standard III.15; CPA, 2014). Finally, psychologists also connect the

utility of psychological assessment and TFB to other aspects of clinical practice such as treatment planning, progress monitoring, and client engagement. Together, these results support the notion that psychologists view TFB as a required and valuable aspect of practice, which in turn contributes to the prolific reported usage of TFB in clinical practice (Jacobson et al., 2015). This viewpoint is not surprising considering that psychological assessment is highly effective, highly useful, and gives unique information relevant to clinicians (Kubiszyn et al., 2000; Meyer et al., 2001). Other surveys of psychologists find similar perceptions related to the utility of feedback (Curry & Hanson, 2010; Smith et al., 2007). However, the beliefs surrounding TFB as a practice standard or as a necessity for ethical practice were not captured in prior research. Future mixed methods research investigating the issue of standards of practice related to TFB and psychologists' knowledge and understanding of TFB as an ethical issue may be fruitful.

A major finding in Jacobson et al.'s study (2015) is that various contextual factors such as the practice setting and type of client greatly influence psychologists' TFB practices. For example, psychological assessment in a forensic setting is negatively correlated with providing TFB because of a lack of precedent for clinicians giving feedback directly to test-taking individuals in that setting. One of the major issues in forensic TFB is that the assessment client and the test-taker are often different. In the present study, this issue with providing TFB to third parties is also found. Psychologists note that when practicing in a forensic setting, the assessment process often excludes direct feedback to the testing individual. Additionally, in the industrial/organization setting – it is the hiring organization that is considered the assessment client and as such receives the direct feedback, rather than the testing individual. Psychologists note a similar arrangement with TFB provision for child clients, with findings more often being delivered to caregivers rather than the child, depending on age. In contrast, psychologists that

report working with children/adolescents in the original Jacobson et al. (2015) study are significantly more likely to provide test feedback. One interpretation of these disparate findings is that psychologists include giving TFB to the caregivers rather than the child as “legitimate” TFB but view providing TFB to an institution rather than an individual as a distinctly different activity. Future qualitative investigations of the parallels between TFB in forensic and industrial/organizational settings may shed more light on the characteristics and significance of these contextual factors. Furthermore, program evaluation based investigations on how assessment and TFB contribute to organizational objectives would be another avenue for examining the effectiveness of TFB.

Other notable factors that affect TFB provision in the Jacobson et al. (2015) study are perceptions that post-graduate and practicum training are helpful, which correlate positively with TFB use. From the current analysis, although experiential training is a prominent category, there is no direct connection made between training and TFB provision. Instead, psychologists’ reflect on what they consider to be effective TFB, including concepts like tailoring feedback to the client and integrating test results with other information. Additionally, there is a category for psychologists’ perceived value of TFB for treatment purposes. This finding is in line with the qualitative component of the Jacobson et al.’s (2015) mixed methods study, which analyzed a series of semi-structured interviews. In that phase of the study, the authors found that psychologists perceive TFB as beneficial because it enhances client understanding, helps clinicians consider client needs, and facilitates the integration of results into the client’s real-life situation.

Training in TFB is also a major explanatory area for this follow-up study. In the original Jacobson et al. (2015) investigation, psychologists report that the most common form of training

in TFB is practicum/clinical experience during graduate and post-graduate education. In the qualitative phase of that study, TFB providers state most of their feedback skill development is through self-teaching and trial-and-error. The categories within the “Training” domain in the present study reflect similar strategies. Experiential training, such as learning through practica, self-study, supervision, and general clinical exposure and experience, is a prevalent theme. Psychologists emphasize the perceived inadequacies with current TFB training, and along this line of thinking, what should be taught to address these gaps. These gaps in training, particularly at the graduate level, are related to subjects such as providing verbal feedback, breaking “bad news”, integrating test results, and explaining the implications of test results. These results, when combined with those from the original Jacobson et al. study, suggest that although the majority of psychologists perceive their academic training as helpful, there are many specific aspects of TFB where training is perceived as inadequate at the graduate level by psychologists (Curry & Hanson, 2010; May & Scott, 1991). As such, self-study and trial-and-error approaches to developing feedback skills become necessary. This is a concern because such unsystematic approaches to learning are not aligned with the effectiveness, evidence-based sensibilities of scientist-practitioner psychologists. Another example in the literature of how gaps in TFB training lead to practical approaches to skill development comes from a study exploring the concept and practice of breaking bad news amongst psychologists (Merker, Hanson, & Poston, 2010). In the study, the authors found that feelings of anxiety are a significant barrier to the practice of TFB, and account for over 30% of the variance in psychologists’ propensity to break bad news to assessment clients. Psychologists who are reluctant to give bad news state in interviews that they learn TFB primarily through clinical experience, and desire more formal training on the subject. Further investigation into psychologists’ perceived gaps in TFB training

and possible solutions could be informative for both graduate and post-graduate programs and institutions.

An emerging theme from this study shows that Canadian psychologists' also have a varying landscape of beliefs surrounding what constitutes effective TFB practices. The categories under the "Effectiveness" domain suggest that psychologists have an implicit understanding and appreciation for TFB practice based on C/TA principles, which are characterized by collaboration, empathy, using the client's own language, and assessment inspired interventions (Finn & Tonsager, 1997; Fischer, 2000). For example, psychologists feel that tailoring feedback to the individual client in a manner that is understandable is critical to effective TFB. Psychologists find that "putting their heads together" with the client is also a key element of effective practice and utilize TFB to facilitate treatment planning. The research evidence on the effectiveness of specific TFB practices is quite sparse. In two comprehensive textbooks on psychological assessment in counseling, the sections on TFB are short and limited. Groth-Marnat (2009) recommends that clinicians provide direct, accurate, and understandable TFB under the following guidelines: outline the rationale for assessment and address client misconceptions, select the most essential information to convey based on clinical judgment, integrate information into client's context of life through collaboration, and tailor language to the client. Groth-Marnat drew on the research of Ackerman et al. (2000), Finn (2007), and Finn and Tonsager (1997) to formulate these recommendations, as such there is heavy alignment with the TA approach. Hays (2013) echoes similar recommendations, and emphasizes that communicating results is a balance of art and science. The author's suggestions related to giving TFB are: understanding the test manuals and explaining the meaning of standard scores/percentile ranks, presenting results as probabilistic rather than certain, encouraging clients

to make their own interpretations, facilitating client expression of their reactions to results, and tailoring the pace and style of the TFB to the client. Hays (2013) does not provide any research citations for these recommendations. In a recent chapter by Aschieri, Fantini, and Smith (2016), the authors summarized the evidence for C/TA and highlighted essential skills and techniques for facilitating successful, impactful psychological assessment. These skills are not unique to the TA approach but can be applicable across a variety of assessment related situations and contexts. They include, active listening to facilitate building an empathic relationship, accurate mirroring to facilitate the therapeutic process, using the concept of scaffolding to emphasize the collaborative nature of the assessment and to imbue a feeling of authorship to the process, and circular questioning to form connections amongst client's experiences. Other critical techniques identified by Aschieri et al. are modulating shame reactions through normalization and/or immediacy, psycho-education about the nature and prevalence of disorders, and mentalization about the meaning of emotional experiences in the assessment. In general, although these recommendations are comprehensive, there is limited direct research evidence in support of specific practices, which implies that clinical experience is the primary source of these suggestions.

Post-test or post-assessment feedback is prevalent in other fields, in particular the area of education, and here I briefly outline evidence for effective feedback practices from that area. Nicol and Macfarlane-Dick (2006) present the concept of feedback from the perspective of formative assessment in the discipline of teaching and education. Their model situates feedback in the context of facilitating students' self-regulated learning process, which results in seven principles of providing effective feedback supported by the author's review of formative assessment research. These principles of good feedback practices include: (1) clarifying criteria

for good performance, (2) facilitating the development of self-assessment in learning, (3) delivering high quality information to students about their learning, (4) encouraging teacher and peer dialogue around learning, (5) encouraging positive beliefs and self-esteem to motivate learning, (6) providing opportunity to bridge current and desired performance, and (7) providing information to teachers to shape future teaching. Evans (2013) also conducted a review of effective assessment feedback practices in the area of higher education and teaching. The study synthesized the research evidence into six principles: (1) feedback is an ongoing and integral part of assessment, (2) assessment feedback guidance is made explicit, (3) greater emphasis is placed on forward looking perspectives on feedback, (4) students are engaged with and in the process, (5) the technicalities of feedback are attended to in order to support learning, and (6) training in assessment feedback is an integral part of assessment design. These review studies demonstrate that methods exist to investigate the nature of effective feedback practices and that research can be used as a source to derive overarching principles for practice. Given the dearth of evidence in this area in the context of psychological assessment, it would seem that there is potential in future exploratory and explanatory research in this area.

Limitations

The nature of this study as a secondary analysis of open-ended survey comments presents clear limitations. Firstly, the study employed an atypical dataset consisting of a large N of cases, with each case individually lacking in depth. The typical dataset for case studies is rich, in-depth textual data focused on a single case or small number of cases (Creswell et al., 2007). As such one could argue that there is a mismatch between the chosen analytic method and the dataset that detracts from the strength of the study's findings. Secondly, the original survey data collection addressed a different set of RQs. However, the intent of this study is to serve as an exploratory

follow-up to that original study. Additionally, the RQs selected are closely related and relevant to the context of the original data collection. Thirdly, there is the argument that because qualitative research has a specific “context” underlying the analysis (i.e. the biases of the researcher, their insights, the research setting, the experience of collecting the data, etc.), it is not appropriate to conduct secondary qualitative analyses (Ziebland & Hunt, 2014). However, because the contexts for data analysis are relatively similar and the CQR method is chosen to enhance the trustworthiness of the analysis, the advantages to conducting this secondary analysis in terms of heuristic value and cost-effectiveness outweigh the methodological risks. Fourthly, as part of the research ethics procedures for confidentiality, the demographic information connected to participant comments was removed from the dataset prior to the start of the study. Fifth, there were a number of non-responders to the open-ended survey questions, and as such their viewpoints were not represented in the analysis. There is the possibility that unique perspectives on TFB were not captured in this study as a result. Therefore, the context associated with each comment was not considered in the analysis or the presentation of the findings. Lastly, this study retains all the limitations of the original data collection, such as a relatively low response rate (14.4%), potential self-selection bias from those that responded, demand characteristics, and the ethnic/cultural characteristics of the sample. Limitations with the original survey instrument such as not collecting age data and not translating it into French are also inherited (Jacobson et al., 2015).

There are also several limitations based on the criteria for methodological rigor for CQR. The CQR approach is designed for use with rich, contextualized single case data, often in the form of interviews (Hill et al., 2005). However, in this study the method is applied to localized segments of information in the form of survey comments. Although this usage is outside of the

original intention of the CQR approach, there are advantageous aspects of attempting to apply this approach to a new type of problem. Employing the CQR method enhances the general trustworthiness of the qualitative analysis by integrating a structured and transparent analytic procedure that bolsters the validity and interpretability of the analysis. This usage is within the spirit of the CQR approach, which aims to provide a qualitative approach that is clear, comprehensible, and implementable (Hill et al., 2005). Additionally, other researchers have also explored extensions of the CQR method to other forms of data, such as coded medical interviews (Stanghellini et al, 2014). Although the consensus process is used throughout each phase of the study, only 25% of the comments are coded as a team. The author (HZ) completed the coding of the other 75% of statements post-consensus, which raises the possibility of researcher bias for that segment of coding. Another CQR procedural criterion is the use of an auditor in between each phase of the analysis (i.e. after domain coding, core idea abstraction, and cross-analysis). In this study, the author (HZ) chose to reserve auditing solely to the post cross-analysis phase because of time and resource restrictions. Lastly, the labeling criteria for reporting the results of the CQR analysis are modified as a necessity based on the nature of the case data (see Chapter 3 for the full justification of this decision).

Implications for Clinical Practice and Training

The results of this study may have implications with for the practice of TFB and training in psychological assessment in Canada. Based on the results, the following suggestions are submitted for consideration:

- (1) Training in psychological assessment could provide more opportunities for psychologists to obtain practical, hands-on experiential training. During practica and internships,

psychologists-in-training should seek supervision experiences that place emphasis on both the written report-based and verbal in-person based forms of TFB.

(2) Training programs might consider providing specific formal training not only in the interpretation of test results but also the process of communicating those results in a tailored and understandable manner to clients. Programs might use the training tactics of graduate courses on C/TA, such as adopting a collaborative stance with the students to serve as a model for their practical work with clients (Hanson, 2013; Finn, 2007).

(3) Psychologists should be aware that TFB provision can be strongly influenced by the exigencies and traditions of their practice setting. Across multiple studies, psychologists in forensic settings noted that situations with third party clients serve as a significant barrier to debriefing with test-takers (Curry & Hanson, 2010; Jacobson et al., 2015). In this study, psychologists working in industrial/organizational settings also describe similar barriers to providing TFB, where the test taking individual and the client are different.

(4) Psychologists might consider tailoring TFB for their clients as an important competency in clinical practice. This aspect of effective practice can encompass writing reports using appropriate language, using the client's language during debriefing, and even integrating TFB with the client's personal assessment questions (Finn, 2007).

(5) Psychologists might also educate themselves on the standards of assessment practice and other relevant assessment competency related guidelines within their jurisdiction of practice. Many standards and ethical codes contain stipulations emphasizing that clients should understand their assessment findings and that TFB should be provided.

Directions for Future Research

Many fruitful areas of research on the topic of psychological assessment TFB remain. A key pre-requisite to such research is clear operational definitions for feedback outcomes. Researchers have used a variety of process and outcome measures to represent effectiveness, including symptom change post-assessment, self-ratings of various personality and emotional factors (e.g. hope), therapeutic alliance ratings, client satisfaction, client attendance, and even idiographic outcome measurements developed collaboratively with the research participant/client (Ackerman et al., 2004; Finn & Tonsager, 1992; Hanson et al., 1997; Hanson & Claiborn, 2006; Hilsenroth et al., 2004; Newman & Greenway, 1997; Smith et al., 2009; 2010). A consistent definition and conceptualization of “effective” TFB would facilitate future quantitative and mixed methods evaluations of TFB techniques, approaches, and philosophies. Consistent use of assessment outcome measures across studies, such as the Assessment Questionnaire – Revised (AQ-2; Finn, Schroeder, & Tonsager, 1995; Finn & Tonsager, 1997), would facilitate comparisons of outcomes for effectiveness. In this study, psychologists frequently refer to elements of practice that they consider being “effective” or “right,” but it is unclear what criteria psychologists are using to make this evaluation. Future qualitative or mixed methods exploratory research on psychologists’ expected or desired outcomes from providing TFB to clients and the development of conceptual definitions and measurements for those outcomes would facilitate more specific research.

Once appropriate measurement definitions and tools are available, researchers could begin to quantitatively examine RQs like “What aspects and variables of TFB provision contribute to effective feedback?” using experimental and other controlled study designs. Canadian psychologists relate tailored feedback and client collaboration as critical elements of TFB provision in this study, which could serve as a starting point for testing potentially impactful

factors. Additionally, it is unclear how individual psychologists' attitudes, beliefs, and perceptions influence specific practice elements of TFB and effectiveness (i.e. "If a psychologist believes in collaborative TFB, does it translate into differences in clinical practice?").

Quantitative studies examining attitudes, beliefs, and perceptions as a moderating factor between practice elements and assessment outcomes can address this type of RQ.

A specific issue that arose both in this study and in past studies examining psychologists' perceptions about TFB is issues with third party clients (Curry & Hanson, 2010; Jacobson et al., 2015). New RQs focusing on this assessment issue from an ethical or experiential perspective would be enlightening (i.e. "What is psychologists' experience with providing TFB to third parties?", "What ethical assumptions are being made by psychologists in third party TFB situations?"). A qualitative methodology employing a grounded theory approach to develop an overarching understanding of how psychologists navigate third party client TFB situations or a phenomenological approach investigating psychologists' experience with these situations would be interesting and appropriate.

Lastly, future research explicitly targeting the development of effective training programs for both verbal and written TFB is needed. Researchers have argued for the importance of teaching psychological assessment in graduate training based on the declining status of assessment practice in the field, and concerns about competent and ethical assessment practice (Haverkamp, 2013). Haverkamp (2013) notes several barriers to student engagement when teaching graduate courses in psychological assessment such as student perceptions that psychological assessment is antithetical to treating clients as individuals, collaborative processes, and subjective worldviews. To address these concerns, Haverkamp draws on personal experience and a theory of student engagement (self-determination theory), which posits that choice,

validation of feelings, and opportunities for self-direction enhance students' motivation for learning (Ryan & Deci, 2000). Haverkamp then recommends providing relational support through exercises like guided imagery and self-reflection, autonomy support by providing student choices in course assignments and facilitating student development of individualized goals, competency support by incorporating classroom exercises that practice specific skills like interpreting tests, and addressing student' concerns with assessment by incorporating a unit on collaborative assessment and/or TA in introductory courses to psychological assessment.

Research that investigates the impact of different forms of experiential and academic training in TFB on student learning outcomes, like student satisfaction or supervisory alliance, as well as clinical outcomes, like client symptom change would be useful. Alternatively, exploring students' learning experiences in greater detail through qualitative inquiry could help researchers examine RQs such as "What aspects of experiential training in TFB contribute to psychologists' learning?" and "How did students experience gaps in their TFB training during graduate school?" Addressing these RQs could shed light on what is lacking in current training programs in assessment with regards to TFB and enable a more focused and efficient curriculum for psychologists-in-training.

Conclusion

In this study, a secondary analysis of open-ended qualitative survey comments from Jacobson et al's (2015) study is conducted using a case study design and CQR analytic procedures. The findings show that psychologists practice with TFB because they consider it an ethical imperative, a necessity for effective practice, and have previous experience with the value of providing TFB. Psychologists discuss the notable situation of providing TFB to various types of third parties, which suggests that the practice setting and context is highly influential.

Psychologists also reflect on the usefulness of experiential training in learning TFB but also emphasize perceived gaps in graduate training on giving feedback. Lastly, psychologists also connect practice elements based off of TA principles with effective TFB provision, such as tailoring feedback to clients and collaborating to make sense of results.

In many respects, this study raises many more questions than it answers, which reflects the space for further investigation in this research area. Future research measuring and testing TFB effectiveness, exploring the nature of psychologists' experiences with third party situations, and developing effective TFB training programs are needed. TFB is a subject that has so far been relatively neglected in the assessment literature. However, it is also an integral aspect of "piecing together the puzzle" that is effective, evidence based psychological assessment. The integration of psychological assessment into the core competencies of psychotherapy practice, clinical training, and applied psychology in general is becoming more widespread and explicit (Anchin, Fernández-Alvarez, Botella, & Iwakabe, 2016). As such, the delivery of competent psychological assessment could become a universal skill set for future clinical practitioners.

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Appendix A

Assessment Feedback Practice and Training Questionnaire

This questionnaire examines the training and practice of Canadian psychologists providing test feedback to their clients based on the results of psychological assessments. It should take approximately 10 minutes for you to complete. Your participation is greatly appreciated.

1. Do you currently use psychological assessment instruments in your practice?

Examples include: MMPI-2, WAIS-IV, BDI-II, State-Trait Anxiety Inventory, Strong Interest Inventory, etc.

- Yes
 No

2. How often do you use psychological assessments in your practice?

- Rarely (with a small percentage of clients)
 Sometimes
 Frequently
 Almost always (with a large percentage of clients)

3. How often do you use assessments to answer specific referral questions?

- Never
 Rarely (with a small percentage of clients)
 Sometimes
 Frequently
 Almost always (with a large percentage of clients)

4. How often do you use assessments to make or confirm a diagnosis?

- Never
 Rarely (with a small percentage of clients)
 Sometimes
 Frequently
 Almost always (with a large percentage of clients)

5. How often do you use assessments to measure treatment outcomes or monitor client change?

- Never
 Rarely (with a small percentage of clients)
 Sometimes
 Frequently
 Almost always (with a large percentage of clients)

6. How often do you use assessments to assist or encourage clients to engage in self-exploration?

- Never
 Rarely (with a small percentage of clients)

- Sometimes
- Frequently
- Almost always (with a large percentage of clients)

7. How often do you use assessments for court mandated reasons (e.g., to determine competence, for child custody hearings, forensic evaluations, etc.)?

- Never
- Rarely (with a small percentage of clients)
- Sometimes
- Frequently
- Almost always (with a large percentage of clients)

8. How often do you use assessments as a tool for building rapport?

- Never
- Rarely (with a small percentage of clients)
- Sometimes
- Frequently
- Almost always (with a large percentage of clients)

9. How often do you use assessments as a therapeutic intervention?

- Never
- Rarely (with a small percentage of clients)
- Sometimes
- Frequently
- Almost always (with a large percentage of clients)

10. How often do you use assessments for research purposes?

- Never
- Rarely (with a small percentage of clients)
- Sometimes
- Frequently
- Almost always (with a large percentage of clients)

11. How often do you use assessments for training purposes?

- Never
- Rarely (with a small percentage of clients)
- Sometimes
- Frequently
- Almost always (with a large percentage of clients)

12. Are there any other uses of psychological assessments that apply to your practice? If so, please describe them below.

13. In which of the following contexts do you use assessments? Please check all that apply.

- In an interdisciplinary treatment team
 - With clients who experience severe mental illness
 - With adults
 - With college/university students
 - With adolescents
 - With children
 - Other (please specify below)
-
-

14. Which of the following types of assessment instruments do you typically use? Please check all that apply.

- Intellectual (e.g., WAIS, WISC, Stanford Binet, KABC)
 - Behavioural (e.g., BASC, Conners)
 - Objective Personality (e.g., MMPI, MCMI, 16-PF)
 - Projective Personality (e.g., Rorschach, Thematic Apperception Test)
 - Career Inventory (e.g., Strong Interest Inventory, Self-Directed Search)
 - Symptom-based measures (e.g., BDI, State-Trait Anxiety Inventory)
 - Neuropsychological (e.g., COGNISTAT, RBANS)
 - Other (please specify below)
-
-

15. How often do you obtain assessment-specific consent beyond initial consent to participate in treatment (e.g., counselling) before administering assessments?

- Never
- Rarely (with a small percentage of clients)
- Sometimes
- Frequently
- Almost always (with a large percentage of clients)

16. How often do you prepare clients for the assessment (e.g., by explaining the purpose, process and likely outcomes)?

- Never
- Rarely (with a small percentage of clients)
- Sometimes
- Frequently
- Almost always (with a large percentage of clients)

17. How often do you encourage clients to generate their own personally relevant questions that could be addressed through the assessment process?

- Never
- Rarely (with a small percentage of clients)
- Sometimes
- Frequently

Almost always (with a large percentage of clients)

18. How often do you provide test feedback to clients based on assessment results? That is, how often do you provide an interpretation of test results directly to the client in order to make the results as understandable, meaningful and useful as possible for them (typically this would take place in an assessment debriefing or case consultation)?

Never

Rarely (with a small percentage of clients)

Sometimes

Frequently

Almost always (with a large percentage of clients)

19. How often do you provide verbal test feedback (as described in the previous item) directly to the client?

Never

Rarely (with a small percentage of clients)

Sometimes

Frequently

Almost always (with a large percentage of clients)

20. How often do you provide written test feedback in the form of a summary report of the assessment results directly to the client?

Never

Rarely (with a small percentage of clients)

Sometimes

Frequently

Almost always (with a large percentage of clients)

21. Excluding protected materials (e.g., standardized intelligence test protocols), how often do you provide clients with raw assessment data beyond a percentile rank and descriptor? Examples include raw scores, composite scores, T-scores, etc.

Never

Rarely (with a small percentage of clients)

Sometimes

Frequently

Almost always (with a large percentage of clients)

22. How often do you make a deliberate effort to ensure that clients have understood the assessment results as well as the test feedback you provided (i.e., by asking them directly)?

Never

Rarely (with a small percentage of clients)

Sometimes

Frequently

Almost always (with a large percentage of clients)

23. How often do you make a deliberate effort to highlight any relevant implications of the assessment results when providing test feedback to clients?

- Never
- Rarely (with a small percentage of clients)
- Sometimes
- Frequently
- Almost always (with a large percentage of clients)

24. How often do you provide clients with an opportunity to ask any questions they may have about the assessment results and to clarify their understanding of the test feedback provided to them?

- Never
- Rarely (with a small percentage of clients)
- Sometimes
- Frequently
- Almost always (with a large percentage of clients)

25. To what extent do you agree with the following statement: My graduate training in psychology (including coursework and practicums) did an excellent job equipping and preparing me to provide test feedback to clients, ensuring that assessment results are as meaningful and useful to them as possible.

- Strongly Disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

26. In your estimation, what percentage of your graduate training in psychological assessment focused explicitly on how to provide clients with test feedback?

27. Of the training you received in providing clients with test feedback during your graduate degree, what was the primary mode of instruction/learning?

- Not applicable (no instruction was provided)
- Lecture
- Assigned reading
- Open discussion with professor or supervisor
- Modeled by professor or supervisor
- Role-playing
- Practicum / Clinical experience
- Other (please specify below)

28. To what extent do you agree with the following statement: My post-graduate training experience did an excellent job equipping and preparing me to provide test feedback to clients, ensuring that assessment results are as meaningful and useful to them as possible.

- Strongly Disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

29. In your estimation, what percentage of your post-graduate training in psychological assessment focused explicitly on how to provide clients with test feedback?

30. Of the training you received in providing clients with test feedback during your graduate degree, what was the primary mode of instruction/learning?

- Not applicable (no instruction was provided)
- Lecture
- Assigned reading
- Open discussion with professor or supervisor
- Modeled by professor or supervisor
- Role-playing
- Practicum / Clinical experience
- Other (please specify below)

31. Is there is anything else you believe is relevant to the practice and/or training of psychologists providing clients with test feedback that was not sufficiently covered in this questionnaire? If so, please describe it below. You can also utilize the space provided to elaborate on any of your previous responses if you desire.

32. Please Indicate the highest degree you have attained.

- Ph.D.
- Psy.D.
- Ed.D.
- M.Ed.
- M.A. / M.S.
- Other (please specify below)

33. When did you earn this degree (in what year)?

34. What is your sex?

- Male
- Female

35. What ethnic/cultural background do you identify most strongly with?

- European Canadian / White
 - Aboriginal / First Nations / Canadian Indigenous
 - Inuit
 - Metis
 - Asian / Asian Canadian
 - Hispanic / Latino / Latina
 - African Canadian / Black
 - Other (please specify below)
-

36. Which of the following best describes your primary practice setting?

- Armed Forces
 - Child / Adolescent Psychiatric or Pediatric
 - Community Mental Health Center
 - Consortium
 - General Hospital
 - Medical School
 - Outpatient Clinic
 - Prison / Correctional Facility
 - Primary Care Network
 - Private Practice
 - Psychiatric Unit / Hospital
 - School / School District
 - University / College Psychology Department
 - University / College Counselling Center
 - Other (please specify below)
-

37. Which of the following best describes your theoretical orientation (please limit your response to 2 selections)?

- Behavioural
- Biological (i.e., Neurological, Chemical)
- Cognitive Behavioural
- Eclectic
- Existential
- Feminist
- Humanistic
- Interpersonal

- Process-Experiential
 - Psychoanalytic / Psychodynamic
 - Systems
 - Other (please specify below)
-

38. Which section(s) of CPA are you affiliated with or involved in? Or, which domains pertain most closely to your area of expertise and/or practice (please select all that apply)?

- Aboriginal Psychology
 - Addiction Psychology
 - Adult Development and Aging
 - Brain and Cognitive Sciences
 - Clinical Psychology
 - Clinical Neuropsychology
 - Community Psychology
 - Counselling Psychology
 - Criminal Justice Psychology
 - Developmental Psychology
 - Environmental Psychology
 - Extremism and Terrorism
 - Family Psychology
 - Health Psychology
 - History and Philosophy of Psychology
 - Industrial / Organizational Psychology
 - International and Cross-Cultural Psychology
 - Psychoanalytic and Psychodynamic Psychology
 - Psychologists in Education
 - Psychologists in Hospitals and Health Centers
 - Psychology in the Military
 - Psychologists and Retirement
 - Psychopharmacology
 - Psychophysiology Special Interest Group
 - Quantitative Methods
 - Religion
 - Rural and Northern Psychology
 - Sexual Orientation and Gender Identity
 - Social and Personality Psychology
 - Sport and Exercise Psychology
 - Students of Psychology
 - Teaching of Psychology
 - Traumatic Stress Section
 - Section for Women and Psychology
 - Other (please specify below)
-

39. Would you be willing to participate in a brief follow-up interview (approximately 20 minutes)?

The purpose of these interviews is to explore the experiences of psychologists in providing clients with test feedback. Interviews will be conducted by telephone or online video conferencing (e.g., Skype). Please note that you are not consenting to participate by responding "yes", only that you are open to discussing the possibility with the researchers.

Yes. I am willing to be contacted (**please provide an email address or telephone number below, along with an area code and optimal time of day to call**).

No thanks.

40. If you would like to receive a copy of the results of this survey, please check the appropriate box below.

Yes. Please provide me with a copy of the results of this survey via the following email or P.O. box address.

No thanks.

Appendix B

Initial Email Invitation

Dear Colleague,

This is an invitation for you to complete a brief survey regarding the assessment practices of psychologists in Canada. The results will be used in a study I am conducting for my master's thesis project at the University of Alberta. Assessment is a vital aspect of professional practice that arguably distinguishes psychologists from other mental health professionals. While a number of studies have sought to determine the various uses of tests by psychologists (i.e., what tests are commonly used in practice, and for what purposes), this study is unique as it examines how the results of tests are used, and how results are presented to clients. Your assistance in completing this survey is greatly appreciated. Thank you very much for your input, and for your time.

While more detailed information is available by clicking on the survey link (below), you should be aware of some important points:

- 1) This study received ethics approval in December of 2013 from the University of Alberta's Research Ethics Board.
- 2) Your contact information was obtained through the Canadian Psychological Association membership directory.
- 3) It should take approximately 10 minutes for you to complete the survey.

Sincerely, Ryan Jacobson, B.A.
University of Alberta
Dept. of Educational Psychology
6-102 Education North
Edmonton, AB.
T6G 2G5 (780) 935-6153
rjacobso@ualberta.ca

Follow this link to the Survey:

[Take the Survey](#)

Or copy and paste the URL below into your internet browser:

https://qtrial.qualtrics.com/WRQualtricsSurveyEngine/?Q_SS=50kRZje0gbwy6Lr_4ZVPs CZYEu12Opf&_=1

Follow the link to opt out of future emails:

[Click here to unsubscribe](#)

Appendix C

Follow-Up Email Invitation

Dear Colleague,

This is a reminder about an invitation you received recently to complete a brief survey regarding the assessment practices of psychologists in Canada. The results will be used in a study I am conducting for my masters' thesis project at the University of Alberta. Assessment is a vital aspect of professional practice that arguably distinguishes psychologists from other mental health professionals. While a number of studies have sought to determine the various uses of tests by psychologists (i.e., what tests are commonly used in practice, and for what purposes), this study is unique as it examines how the results of tests are used, and how results are presented to clients.

While more detailed information is available by clicking on the survey link (below), you should be aware of some important points:

- 1) This study received ethics approval in December of 2013 from the University of Alberta's Research Ethics Board.
- 2) Your contact information was obtained through the Canadian Psychological Association membership directory.
- 3) It should take approximately 10 minutes for you to complete the survey.
- 4) If you've already taken the survey or responded to this invitation, please disregard this message.

Your assistance is greatly appreciated. Thank you very much for your input, and for your time.

Sincerely, Ryan Jacobson, B.A.
University of Alberta
Dept. of Educational Psychology
6-102 Education North
Edmonton, AB.
T6G 2G5
rjacobso@ualberta.ca
(780) 935-6153

Follow this link to the Survey:

[Take the Survey](#)

Or copy and paste the URL below into your internet browser:

https://acsurvey.qualtrics.com/WRQualtricsSurveyEngine/?Q_SS=3WznTNDd4gKX5aJ_4ZVPsCZYEu12Opf&_1

Appendix D

Quantitative Phase Information Letter and Consent Form

INFORMATION LETTER and CONSENT FORM

The Practice and Training of Providing Test Feedback among Canadian Psychologists.

Research Investigator:
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Supervisor:
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Background This study examines the training and practice of Canadian psychologists in providing test feedback to clients based on the results of psychological assessments. We selected your name from the Canadian Psychological Association membership directory, and will be using the results of this study in a thesis project, in partial fulfillment of the requirements of Mr. Jacobson's masters' degree. We may also potentially publish the results in an academic journal, or present them at a research conference. It is important that you are aware that we are both members of the Canadian Psychological Association (CPA). However, in no way do we represent the interests of the CPA, or its members. The CPA has not commissioned this research and has no vested interest in this study or special relationship with us.

Purpose The purpose of this research is to explore test feedback practices among Canadian psychologists. More specifically, we seek to describe the frequency with which test feedback is provided to clients, identify the format(s) in which feedback is provided, identify specific training psychologists receive in providing test feedback, and determine their motivation for providing or not providing test feedback to clients. There is currently no published research pertaining to test feedback practices among Canadian psychologists. Given the empirically supported capacity of assessment feedback to improve treatment processes and outcomes, this study addresses a considerable gap in our knowledge base, and represents an important line of inquiry with potentially significant implications for clinical practice and training nationally.

Study Procedures

We will be conducting this research over the course of the next 2 to 4 months. If you choose to participate in this study, we invite you to complete a questionnaire that will take approximately ten minutes. The questions focus on your use of assessment instruments as well as the practice, training and motivation associated with providing test feedback to clients. The survey also asks a number of demographic questions so we can provide a description of the sample of participants in this study. These questions pertain to your level of education, when you completed your degree, the setting of your primary practice, your theoretical orientation, sections of the CPA you are affiliated with, as well as your sex and ethnic/cultural identity.

Benefits Aside from providing the opportunity for you to reflect on your practice, we do not

foresee any direct benefit for you as a participant in this study, and there is no payment or other compensation for your involvement. If you do choose to participate, you may benefit by increasing your knowledge of assessment practice and training, and you will be making a valuable contribution to helping us better understand current assessment practices in Canada.

Risks We do not anticipate you encountering any risks as a result of participating in this study. While there may be risks associated with participation, they are presently unknown to us. We will advise you as soon as we become aware of any potential risk or learn of anything that might affect your willingness to be involved.

Voluntary Participation You are free to choose not to participate in this study, and you will experience no negative consequences whatsoever as a result. You are also free to discontinue your participation at any time (by exiting/closing the survey window) without fear of negative repercussions, and you can modify your participation by skipping any questions you would prefer not to answer. If you choose to discontinue participation at a later point in time, you can request that your data be removed from the study and we will gladly remove/destroy your data (this request can be facilitated any time up until the point at which the data is rendered anonymous).

Confidentiality & Anonymity

All your questionnaire responses will be kept strictly confidential. We will maintain all data and study materials securely, and will be the only individuals who will be able to access your data at any point. An identification number will be used on the questionnaire in place of your name, and the link between your name and the identification number will be destroyed once data collection is complete. When your data is entered into an electronic database, no identifying information will be included, so that data will thereafter be anonymous. With the exception of optional open-ended responses (which will remain strictly anonymous), only aggregate (group) data from this survey will be examined and reported in the final research report. In the event that you are contacted for a follow-up interview, we will thoroughly explain the uses of your data prior to conducting the interview. As previously mentioned, we may published these results at some point in an academic journal or present them at a research conference. We may also seek to use the results of this study in future research. However, the Research Ethics Board of the University of Alberta will first approve any future use of your data.

Further Information The University of Alberta's Research Ethics Board has approved this study by virtue of its adherence to ethical guidelines in conducting research. We encourage you to contact the board at reoffice@ualberta.ca or at (780) 429-2615 if you have any questions regarding your rights as a participant in this study, or research ethics in general. If you have any further questions pertaining to your involvement in this study, or would like to obtain a copy of the results, feel free to contact us, Dr. William Hanson or Ryan Jacobson, using the contact information provided. Thank you very much once again for your time.

Sincerely,

Ryan Jacobson & William Hanson

I hereby give my consent to participate in the research described above by indicating "yes" below. I understand that, by consenting, I am agreeing to complete the following survey. I have read and understood the consent form and desire of my own free will to participate.

- Yes
- No

Appendix E

Research Ethics Board Application



Date: Wednesday, February 3, 2016 12:48:43 PM

ID: Pro00059600

View: 1.1 Study Identification

Status: Approved



1.1 Study Identification

All questions marked by a *red asterisk* * are required fields. However, because the mandatory fields have been kept to a minimum, answering only the required fields may not be sufficient for the REB to review your application.

Please answer all relevant questions that will reasonably help to describe your study or proposed research.

* **Short Study Title** (restricted to 250 characters):

1.0 Canadian Psychologists' Attitudes, Beliefs, and Perceptions about Test Feedback: A Qualitative Secondary Analysis of Survey Findings

* **Complete Study Title** (can be exactly the same as short title):

2.0 Canadian Psychologists' Attitudes, Beliefs, and Perceptions about Test Feedback: A Qualitative Secondary Analysis of Survey Findings

* **Select the appropriate Research Ethics Board** (Detailed descriptions are available by clicking the *HELP* link in the upper right hand corner of your screen):

REB 2

* **Is the proposed research:**

4.0 Unfunded

4.0 **Is the proposed research :**

* **Name of Principal Investigator** (at the University of Alberta, Covenant Health, or Alberta Health Services):

[Hansen Zhou](#)

6.0 **Investigator's Supervisor** (required for applications from undergraduate students, graduate students, post-doctoral fellows and medical residents to Boards 1, 2, 3. HREB does not accept applications from student PIs)

[William Hanson](#)

* **Type of research/study:**

7.0 Graduate Student - Thesis, Dissertation, Capping Project

8.0 **Study Coordinators or Research Assistants:** People listed here can edit this application and will receive all HERO notifications for the study:

Name

Employer

There are no items to display

Study Coordinators or Research Assistants: People listed here can edit this application and will receive all HERO notifications for the study:

8.0 Name Employer

There are no items to display

Co-Investigators: People listed here can edit this application but do not receive HERO notifications unless they are added to the study email list:

9.0 Name Employer Employer.ID

There are no items to display

Co-Investigators: People listed here can edit this application but do not receive HERO notifications unless they are added to the study email list:

9.0 Name Employer Employer.ID

There are no items to display

Study Team (*Co-investigators, supervising team, other study team members*): People listed here cannot edit this application and do not receive HERO notifications:

10.0 Last Name First Name Organization Role/Area of Responsibility Phone Email

There are no items to display

Study Team (*Co-investigators, supervising team, other study team members*): People listed here cannot edit this application and do not receive HERO notifications:

10.0 Last Name First Name Organization Role/Area of Responsibility Phone Email

There are no items to display

ID: Pro00059600 View: 1.5 Conflict of Interest

Status: Approved

1.5 Conflict of Interest

*** Are any of the investigators or their immediate family receiving any personal remuneration (including investigator payments and recruitment incentives but excluding trainee remuneration or graduate student stipends) from the funding of this study that is not accounted for in the study budget?**

1.0 Yes No

If YES, explain:

*** Do any of investigators or their immediate family have any proprietary interests in the product under study or the outcome of the research including patents, trademarks, copyrights, and licensing agreements?**

2.0 Yes No

*** Is there any compensation for this study that is affected by the study outcome?**

3.0 Yes No

*** Do any of the investigators or their immediate family have equity interest in the sponsoring company? (This does not include Mutual Funds)**

4.0 Yes No

5.0 * Do any of the investigators or their immediate family receive payments of other sorts, from this sponsor (i.e. grants, compensation in the form of equipment or supplies, retainers for ongoing consultation and honoraria)?

Yes No

6.0 * Are any of the investigators or their immediate family, members of the sponsor's Board of Directors, Scientific Advisory Panel or comparable body?

Yes No

7.0 * Do you have any other relationship, financial or non-financial, that, if not disclosed, could be construed as a conflict of interest?

Yes No

If YES, explain:

Important

If you answered YES to any of the questions above, you may be contacted by the REB for more information or asked to submit a Conflict of Interest Declaration.

ID: Pro00059600 **View:** 1.6 Research Locations and Other Approval

Status: Approved

1.6 Research Locations and Other Approval

1.0 * List the locations of the proposed research, including recruitment activities. Provide name of institution or organization, town, or province as applicable

University of Alberta, Edmonton, Alberta

2.0 * Indicate if the study will use or access facilities, programmes, resources, staff, students, specimens, patients or their records, at any of the sites affiliated with the following (*select all that apply*):

2.0 Not applicable

List all facilities or institutions as applicable:

Multi-Institution Review

* 3.1 Has this study already received approval from another REB?

Yes No

3.0 3.2 Indicate if the proposed research has already received ethics approval from other Research Ethics Board or institution. Choose all that apply: (*The University of Alberta has entered into formal reciprocity agreements with the REBs listed below. Because of this agreement, if you have already received approval from one of the REBs specified below. Please UPLOAD the other REBs APPLICATION, APPROVAL and APPROVED CONSENT FORMS to Section 7.1 (11.0). In doing this your study will be eligible for a delegated review instead of requiring full board review.*)

There are no items to display

3.3 If OTHER, list the REB or Institution:

Name

There are no items to display


Does this study involve pandemic or similar emergency health research?

Yes No

4.0

If YES, are you the lead investigator for this pandemic study?

Yes No

If this application is closely linked to research previously approved by one of the University of Alberta REBs or has already received ethics approval from an external ethics review board(s), provide the HERO study number, REB name or other identifying information. Attach any external REB application and approval letter in Section 7.1.11  Other Documents.

5.0 No. 40995

Project Name: "The Practice and Training of Providing Test Feedback among Canadian Psychologists"

Approved by: University of Alberta Research Ethics Board (REB 2)

Approved on: December 16, 2013

ID: Pro00059600 **View:** 2.1 Study Objectives and Design

Status: Approved

2.1 Study Objectives and Design

1.0 **Date that you expect to start working with human participants:**

2.0 **Date that you expect to finish working with human participants, in other words, you will no longer be in contact with the research participants, including data verification and reporting back to the group or community:**

*** Provide a lay summary of your proposed research suitable for the general public (*restricted to 300 words*). If the PI is not affiliated with the University of Alberta, Alberta Health Services or Covenant Health, please include institutional affiliation.**

3.0 The proposed study is a secondary qualitative analysis of comments from a survey of Canadian Psychologists' test feedback practices. The purpose of this study is to explore Canadian psychologists' attitudes, beliefs, and perceptions about test feedback, and to build on the findings of the original survey study. The analysis will use a consensual qualitative research (CQR) approach. In CQR a team of researchers works to figure out the meaning of textual data through a process of coming to consensus to minimize personal bias. The ultimate product of CQR is a rich, detailed description of the meaning of the data. The intended outcome for this study is that a deeper understanding of psychologists' attitudes, beliefs, and perceptions about test feedback will inform recommendations on the training, policy, and practice of psychological testing and assessment.

4.0 *** Provide a description of your research proposal including study objectives, background, scope, methods, procedures, etc) (*restricted to 1000 words*). Footnotes and references are not required and best not included here. Research methods questions in Section 5 will prompt**

additional questions and information.

Psychological assessment and testing has an tremendous evidence base supporting both its validity and utility. Research also suggests that clinicians obtain a biased understanding of their clients leading to suboptimal treatment when relying solely on a single method of assessment (e.g. clinical interviewing) compared to multi-method assessment approaches that often include formal psychological testing. Despite the potential benefits, the practice of psychological assessment has declined in recent history due to systemic factors such as limitations in test selection and time to administer, and reduced re-numeration (Kubiszyn et al., 2000; Meyer et al., 2001). Clearly, knowledge translation of the evidence base for the significance and utility of formal psychological testing is a key issue for the field, particularly as it relates to psychologists' assessment training.

One important aspect of assessment is the psychologists' skill and ability to provide test feedback. Test feedback (TFB) is defined as the process of presenting both the raw results and the clinicians' interpretation to the client in an understandable manner (Jacobson, Hanson, & Zhou, In Press). A recent meta-analysis of psychological assessment and collaborative/personalized TFB as a therapeutic intervention found strong, positive, and clinically meaningful effects (Poston & Hanson, 2010). This led the authors to suggest that standards, policies, education, and training on psychological assessment should be revised ubiquitously to adhere to the principles of therapeutic assessment. Two recent studies have examined the progress towards this suggestion in the United States and Canada (Curry & Hanson, 2010; Jacobson, Hanson, & Zhou, In Press). Those studies show that the vast majority of psychologists provide some sort of TFB, but a smaller proportion of psychologists engaged in the specific principles of the therapeutic assessment model. The studies also showed that training in TFB is generally inadequate with most psychologists learning the skill on their own through trial and error.

The purpose of this study is to follow-up and extend the work of Jacobson, Hanson, and Zhou (In Press) through a secondary qualitative analysis of open-ended comments obtained from their original national survey of Canadian psychologists. As the original study prioritized qualitative interview methods as part of a explanatory sequential mixed methods approach, the open-ended comment dataset was not formally analyzed. This study is intended to do just that, as an explanatory follow-up to the original study. The central phenomenon is respondents' perceptions of TFB and TFB training. Exploring this central phenomenon is intended to explain the findings of Jacobson, Hanson, and Zhou (In Press) related to the use and practice of TFB, factors that influence TFB practices, and the inadequacy of TFB training for Canadian psychologists.

The overarching research question for this study is: "What are Canadian psychologists' perceptions of TFB?" Three additional qualitative questions encompass the explanatory follow-up purposes of this study: "How do Canadian psychologists' perceptions of TFB explain their use and practice of TFB?", "Why do factors such as area of practice, helpfulness of training, and type of training influence practice of TFB?", and "Why is training in TFB for Canadian psychologists inadequate? How would TFB training for psychologists be improved?"

To elaborate on the specific methods and analytic procedures of this study: the textual comment data will be obtained from the first author of the original study and a consensual qualitative research (CQR) approach will be used in the analysis. The CQR approach emphasizes the use of multiple

researchers engaging in a process of reaching consensus on the meaning of data, and a systematic method of checking the representativeness of the findings (Hill et al., 2005). The assumption behind CQR is that obtaining multiple perspectives in the analysis will increase the likelihood that the conclusions drawn will reflect the real meaning of the data and be free from researcher bias. The consensus team for this study will have 3 members, including the principle investigator and two other graduate students. There will one additional member of the research team, who will be at a distance from the analysis initially, to serve as the auditor during the CQR process. Once the research team is assembled, the steps of CQR analysis consist of: (1) divide the textual data into general topic areas (domains), (2) within the domains of each individual case construct brief descriptive summaries (core ideas), (3) conduct cross-analysis by creating categories that capture the consistency across core ideas between cases. Within each step is also an iterative process where individual team members work on the analysis, the team then meets and arrives at a consensus, and the auditor checks over the analysis upon completion. The output of the CQR approach is a rich, narrative, descriptive summary of the central phenomenon (Hill, Thompson, & Williams, 1997).

The expected outcomes for the study are intended to address the research questions outlined above. The findings will provide a detailed description of Canadian psychologists' attitudes, beliefs, and perceptions about TFB. The description will then be used to explain findings about Canadian psychologists' TFB practices and address the reasons that TFB training is inadequate. Finally, the description will also inform recommendations for future research, policy, and clinical practice related to psychological assessment.

5.0 **Describe procedures, treatment, or activities that are above or in addition to standard practices in this study area** (eg. *extra medical or health-related procedures, curriculum enhancements, extra follow-up, etc*):

6.0 **If the proposed research is above minimal risk and is not funded via a competitive peer review grant or industry-sponsored clinical trial, the REB will require evidence of scientific review. Provide information about the review process and its results if appropriate.**

7.0 **For clinical research only, describe any sub-studies associated with this application.**

ID: Pro00059600

View: 3.1 Risk Assessment

Status: Approved

3.1 Risk Assessment

*** Provide your assessment of the risks that may be associated with this research:**

1.0 Minimal Risk - research in which the probability and magnitude of possible harms implied by participation is no greater than those encountered by participants in those aspects of their everyday life that relate to the research (TCPS2)

*** Select all that might apply:**

Description of Potential Physical Risks and Discomforts

2.0 [No](#) Participants might feel physical fatigue, e.g. sleep deprivation

[No](#) Participants might feel physical stress, e.g. cardiovascular stress tests

[No](#) Participants might sustain injury, infection, and intervention side-effects or complications

No The physical risks will be greater than those encountered by the participants in everyday life

Potential Psychological, Emotional, Social and Other Risks and Discomforts

No Participants might feel psychologically or emotionally stressed, demeaned, embarrassed, worried, anxious, scared or distressed, e.g. description of painful or traumatic events

No Participants might feel psychological or mental fatigue, e.g. intense concentration required

No Participants might experience cultural or social risk, e.g. loss of privacy or status or damage to reputation

No Participants might be exposed to economic or legal risk, for instance non-anonymized workplace surveys

No The risks will be greater than those encountered by the participants in everyday life

*** Provide details of the risks and discomforts associated with the research, for instance, health cognitive or emotional factors, socio-economic status or physiological or health conditions:**

3.0 The proposed study is a secondary analysis of a data set that has potentially identifying information. The primary risk is to the original participants' privacy and confidentiality as a new investigator and research team works with the data.

*** Describe how you will manage and minimize risks and discomforts, as well as mitigate harm:**

4.0 Data will be transferred to the new investigator in person. The data will be stored securely by the new investigator on an encrypted USB key and the database will be password protected.

*** If your study has the potential to identify individuals that are upset, distressed, or disturbed, or individuals warranting medical attention, describe the arrangements made to try to assist these individuals. Explain if no arrangements have been made:**

5.0 Not applicable

ID: Pro00059600

View: 3.2 Benefits Analysis

Status: Approved

3.2 Benefits Analysis

*** Describe any potential benefits of the proposed research to the participants. If there are no benefits, state this explicitly:**

1.0 As this is a secondary analysis of survey data already collected there will be no direct benefits to the original participants.

*** Describe the scientific and/or scholarly benefits of the proposed research:**

2.0 The scientific/scholarly benefit of the proposed study is an improved understanding of how psychologists' perceive the practice of providing test feedback. Follow-up analysis may also help explain the results from Jacobson, Hanson, and Zhou (In Press) such as identified inadequacies in test feedback training and the various factors that influence respondents' provision of test feedback.

2.0 Respondents' recommendations for how to address issues related to test feedback would also be informative. Through this increased understanding, informed recommendations could then be made to training institutions and individual psychologists about education in test feedback, the need for test feedback, the practice of test feedback, and future research directions on the theoretical basis of test feedback in Canada.

Benefits/Risks Analysis: Describe the relationship of benefits to risk of participation in the research:

3.0 The proposed study has significant scholarly benefit as described above. An increased understanding of how psychologists' perceive the practice of test feedback can inform policy related to testing, theories of testing, and training of psychological assessment in Canada. This purely scholarly benefit

is justifiable because the risk to participants is minimal as the study is a secondary analysis of data that has already been collected.

ID: Pro00059600

View: 4.1 Participant Information

Status: Approved

4.1 Participant Information

1.0 * Who are you studying? Describe the population that will be included in this study.

Canadian Psychologists

*** Describe the inclusion criteria for participants (e.g. age range, health status, gender, etc.). Justify the inclusion criteria (e.g. safety, uniformity, research methodology, statistical requirement, etc)**

This study will be a secondary analysis of existing data, as such there are no specific inclusion criteria as new participants are not being recruited. The nature of the data will be open-ended comments from a survey of Canadian psychologists. In the original data collection, all Canadian psychologists that were surveyed were (1) licensed psychologists, (2) currently administering psychological assessments, (3) members of the Canadian Psychological Association in good standing. The inclusion criteria were broad because a census sampling approach was used to ensure representativeness.

3.0 Describe and justify the exclusion criteria for participants:

*** Will you be interacting with human subjects, will there be direct contact with human participants, for this study?**

Yes No

4.0 Note: No means no direct contact with participants, chart reviews, secondary data, interaction, etc.

If NO, is this project a chart review or is a chart review part of this research project?

Yes No

Participants

How many participants do you hope to recruit (including controls, if applicable)

399

Of these how many are controls, if applicable (Possible answer: Half, Random, Unknown, or an estimate in numbers, etc).

If this is a multi-site study, for instance a clinical trial, how many participants (including controls, if applicable) are expected to be enrolled by all investigators at all sites in the entire study?

6.0 Justification for sample size:

This study is a secondary analysis of existing data, as such no sampling will be done.

7.0 Does the research specifically target aboriginal groups or communities?

Yes No

ID: Pro00059600

View: 5.1 Research Methods and Procedures

Status: Approved

5.1 Research Methods and Procedures

Some research methods prompt specific ethic issues. The methods listed below have additional questions associated with them in this application. If your research does not involve any of the methods listed below, ensure that your proposed research is adequately described in Section 2.0: Study Objectives and Design or attach documents in Section 7.0 if necessary.

*** This study will involve the following** (*select all that apply*)

The list only includes categories that trigger additional page(s) for an online application. For any other methods or procedures, please indicate and describe in your research proposal in the Study Summary, or provide in an attachment:

None of the above

*** Is this study a Clinical trial? (Any investigation involving participants that evaluates the effects of one or more health-related interventions on health outcomes?)**

Yes No

If you are using any tests in this study diagnostically, indicate the member(s) of the study team who will administer the measures/instruments:

3.0 Test Name Test Administrator Organization Administrator's Qualification

There are no items to display

If any test results could be interpreted diagnostically, how will these be reported back to the participants?

ID: Pro00059600

View: 6.1 Data Collection

Status: Approved

6.1 Data Collection

*** Will the researcher or study team be able to identify any of the participants at any stage of the study?**

Yes No

Will participants be recruited or their data be collected from Alberta Health Services or Covenant Health or data custodian as defined in the Alberta Health Information Act?

2.0 Yes No

Important: Research involving health information must be reviewed by the Health Research Ethics Board.

3.0 Primary/raw data collected will be (*check all that apply*):

All personal identifying information removed (anonymized)

If this study involves secondary use of data, list all original sources:

4.0 Jacobson, R. M. (2014). National survey of Canadian psychologists' test feedback training and practices: A mixed methods study. Masters Thesis.

5.0 In research where total anonymity and confidentiality is sought but cannot be guaranteed (eg. where participants talk in a group) how will confidentiality be achieved?

ID: Pro00059600

View: 6.2 Data Identifiers

Status: Approved

6.2 Data Identifiers

* **Personal Identifiers:** will you be collecting - at any time during the study, including recruitment - any of the following (*check all that apply*):

- 1.0 Telephone Number
Email Address

If OTHER, please describe:

Will you be collecting - at any time of the study, including recruitment of participants - any of the following (*check all that apply*):

- 2.0 There are no items to display

If OTHER, please describe:

* **If you are collecting any of the above, provide a comprehensive rationale to explain why it is necessary to collect this information:**

- 3.0 In this study no new identifying information will be collected as we will be conducting secondary analyses of previously collected data. However, in the original study, telephone numbers and email addresses were collected for the purposes of contacting participants for follow-up interviews. The previously collected data will be provided to us with identifiers removed.

If identifying information will be removed at some point, when and how will this be done?

- 4.0 Identifying information will be removed by the author of the source data study prior to providing us with the raw data. This removal will be accomplished by withholding the identifying information linked to response when the secondary data is provided to us.

* **Specify what identifiable information will be **RETAINED** once data collection is complete, and explain why retention is necessary. Include the retention of master lists that link participant identifiers with de-identified data:**

- 5.0 This study will collect no new data, and the secondary data provided to us will have identifiers removed before being given to us. Thus, no identifiable information will be retained by this study team.

- 6.0 **If applicable, describe your plans to link the data in this study with data associated with other studies (e.g within a data repository) or with data belonging to another organization:**

ID: Pro00059600

View: 6.3 Data Confidentiality and Privacy

Status: Approved

6.3 Data Confidentiality and Privacy

- 1.0 * **How will confidentiality of the data be maintained? Describe how the identity of participants will be protected both during and after research.**

Secondary data will be provided with the identifying information (phone numbers and email addresses) withheld. Thus, the data will be completely anonymous for the purposes of the secondary analysis and there are no risks to confidentiality. The identity of participants from the original study will be protected by withholding the identifying information (phone number and email address) from the secondary data provided.

How will the principal investigator ensure that all study personnel are aware of their responsibilities concerning participants' privacy and the confidentiality of their information?

External Data Access

*** 3.1 Will identifiable data be transferred or made available to persons or agencies outside the research team?**

Yes No

3.2 If YES, describe in detail what identifiable information will be released, to whom, why they need access, and under what conditions? What safeguards will be used to protect the identity of subjects and the privacy of their data.

3.3 Provide details if identifiable data will be leaving the institution, province, or country (eg. member of research team is located in another institution or country, etc.)

ID: Pro00059600 **View:** 6.4 Data Storage, Retention, and Disposal

Status: Approved

6.4 Data Storage, Retention, and Disposal

*** Describe how research data will be stored, e.g. digital files, hard copies, audio recordings, other. Specify the physical location and how it will be secured to protect confidentiality and privacy. (For example, study documents must be kept in a locked filing cabinet and computer files**

1.0 are encrypted, etc. Write N/A if not applicable to your research)

Research data will consist of digital files that will be encrypted and password protected. Hard copies of data will be created as part of the analytic process but on completion all hard copies will be collected from all members of the research team and shredded.

*** University policy requires that you keep your data for a minimum of 5 years following completion of the study but there is no limit on data retention. Specify any plans for future use of the data. If the data will become part of a data repository or if this study involves the**

2.0 creation of a research database or registry for future research use, please provide details. (Write N/A if not applicable to your research)

There are no plans for future use of the data at this time. The analyzed data will be kept securely for 5 years (until 2021).

If you plan to destroy your data, describe when and how this will be done? Indicate your plans for the destruction of the identifiers at the earliest opportunity consistent with the conduct of

3.0 the research and/or clinical needs:

Analyzed data will be kept for 5 years after which time it will be deleted. No identifiers will be provided that need to be destroyed.

ID: Pro00059600

View: 7.1 Documentation

Status: Approved

7.1 Documentation

Add documents in this section according to the headers. Use Item 11.0 "Other Documents" for any material not specifically mentioned below.

[Sample templates are available in the REMO Home Page in the Forms and Templates, or by clicking HERE.](#)

Recruitment Materials:

1.0	Document Name	Version	Date	Description
	There are no items to display			

Letter of Initial Contact:

2.0	Document Name	Version	Date	Description
	There are no items to display			

Informed Consent / Information Document(s):

3.1 What is the reading level of the Informed Consent Form(s):

3.0

3.2 Informed Consent Form(s)/Information Document(s):

	Document Name	Version	Date	Description
	There are no items to display			

Assent Forms:

4.0	Document Name	Version	Date	Description
	There are no items to display			

Questionnaires, Cover Letters, Surveys, Tests, Interview Scripts, etc.:

5.0	Document Name	Version	Date	Description
	There are no items to display			

Protocol:

6.0	Document Name	Version	Date	Description
	There are no items to display			

Investigator Brochures/Product Monographs (Clinical Applications only):

7.0	Document Name	Version	Date	Description
	There are no items to display			

Health Canada No Objection Letter (NOL):

8.0	Document Name	Version	Date	Description
	There are no items to display			

Confidentiality Agreement:

9.0	Document Name	Version	Date	Description
	There are no items to display			

Conflict of Interest:

10.0 Document Name	Version	Date	Description
There are no items to display			

Other Documents:

For example, Study Budget, Course Outline, or other documents not mentioned above

11.0 Document Name	Version	Date	Description
Jacobson Hanson Zhou 2015 Survey.docx History	0.01	2015-12-13 2:15 PM	

ID: Pro00059600 View: SF - Final Page

Status: Approved

Appendix F

Research Ethics Board Approval

Notification of Approval

Date: February 3, 2016
Study ID: Pro00059600
Principal Investigator: [Hansen Zhou](#)
Study Supervisor: [William Hanson](#)
Study Title: Canadian Psychologists' Attitudes, Beliefs, and Perceptions about Test Feedback: A Qualitative Secondary Analysis of Survey Findings
Approval Expiry Date: Thursday, February 2, 2017

Thank you for submitting the above study to the Research Ethics Board 2. Your application has been reviewed and approved on behalf of the committee.

A renewal report must be submitted next year prior to the expiry of this approval if your study still requires ethics approval. If you do not renew on or before the renewal expiry date, you will have to re-submit an ethics application.

Approval by the Research Ethics Board does not encompass authorization to access the staff, students, facilities or resources of local institutions for the purposes of the research.

Sincerely,
Stanley Varnhagen, PhD
Chair, Research Ethics Board 2

Note: This correspondence includes an electronic signature (validation and approval via an online system).