Implementation, evaluation, and application of an electronic practice network for mental health surveillance in Canada[1]

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On behalf of the Canadian Psychological Association by

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Introduction

The Psychology Practice Network for mental health surveillance in Canada is an initiative to collect information about the demographic characteristics of Canadian psychologist practitioners, the health care services they provide, and the demographic and clinical characteristics of the clients they serve. This information will be used to inform the Public Health Agency of Canada (PHAC) and the discipline of psychology regarding the health care practices of psychologists in Canada. It is the hope of the Canadian Psychological Association (CPA) that the survey technology developed in this project will allow for ongoing data collection about psychological practice which in turn can augment what is known about the mental health needs of Canadians and the psychological services they receive.

An accurate understanding of the psychological health needs of Canadians, and the services provided to them, depends in part on the collection of information from Canada's health service providers. Psychologists are Canada's largest group of regulated and specialized mental health care providers. However, largely because their services are increasingly provided in the private sector, information about psychologists and their services are not publicly collected. This project will enhance what is known about the mental health services in Canada by specifically targeting the activities of psychologists. We will expand upon the data sources available for chronic disease surveillance and thereby improve the planning, coordination, and evaluation of health care delivery systems to better serve and protect the interests of Canadians.

The Psychology Practice Network (PPN) was initiated in 2007 as a pilot project. Previous reports have documented the development of the first two surveys, namely the

conceptualization of the questions, the survey system, and the real-time sampling methodology as used for Survey 2 and described in this report. The final report of the pilot project can be found at http://www.cpa.ca/practitioners/surveillanceandsurveys/. Following the successes of the pilot project, PHAC funded CPA for the large scale implementation, evaluation, and application of the PPN for mental health surveillance in Canada.

To accomplish the goals of the project, five phases were developed:

Phase 1: Administration of Survey 1—a survey of the demographic and practice characteristics of psychology practitioners.

Phase 2: Administration of Survey 2 (two waves)—practitioners completed a survey of the demographic and mental health characteristics of two randomly selected clients using real-time sampling methodology.

Phase 3: Focus groups with psychology practitioners across Canada to aid in the development of two additional targeted surveys (e.g., prominent issues arising in practice, services provided to specific groups of clients).

Phases 4 & 5: Develop (Phase 4) and implement (Phase 5) two additional targeted surveys. Based on the feedback provided in the pilot project and Survey 2, it was determined that Survey 3 would focus on psychology practitioners who provided services to children and youth. Focus group feedback also highlighted a need to capture psychological services provided to adult clients with chronic disease. Cardiovascular disease and diabetes were chosen as two examples of prominent chronic disorders among the Canadian population and were the focus of Survey 4.

This report highlights the findings from all phases of the project: Survey 1 (the demographic and practice characteristics of psychological practitioners), Survey 2 (the demographic and clinical characteristics of psychological practitioners' clients), focus group findings, Survey 3 (the demographic and clinical characteristics of children and youth clients), and Survey 4 (the demographic and clinical characteristics of clients with cardiovascular disease and diabetes who seek psychological services).

Phase 1: Survey 1

Survey Description and Development

Both Survey 1 and Survey 2 questions (see Appendix A and B for questionnaires, respectively) were developed in the pilot phase of the project. The report on the development and implementation of Surveys 1 and 2 were submitted to the Public Health Agency of Canada and posted on CPA's website in 2008[3]. As mentioned previously, the project is designed to provide information on the demographics (e.g., age, gender, degree, area of specialization in psychology) and the practice characteristics (e.g., practice setting, types of services provided, client age groups) of Canadian psychologists and psychological associates[4].

Recruitment and Survey Administration

The regulation of the practice of psychology in Canada is carried out by provincial and territorial regulatory bodies. Accordingly, each regulatory body maintains a roster of

[3] http://www.cpa.ca/cpasite/userfiles/Documents/Practice_Page/MHS_final_report.pdf

[4] In some Canadian jurisdictions, there are two registered titles in psychology: Psychologist at the Doctoral level and Psychological Associate at the Master's level. Both registered titles allow for the autonomous practice of psychology. Throughout this report, we use the term psychologist to refer to survey participants.

every psychologist (hereafter called registrants) registered for practice in its jurisdiction. Email requests were sent to each regulatory body at the end of summer 2009 in which we described the project and asked for their help in recruiting their registrants to participate in the surveys (see Appendix C for the recruitment email). The text of the emails also included the specific recruitment message that we wanted the regulatory body to send to its registrants on our behalf. Registrants who were interested in participating in the project were invited to contact the Project Manager (Ashley Ronson). By the end of the recruitment period (late August 2009 to early October 2009), nearly 1000 registered psychologists across Canada had emailed to indicate their interest in participating.

The sample size set for the project was approximately 500 psychology practitioners across Canada. The response from practitioners far exceeded that number and, because of funding constraints, we were not able to accommodate every person who expressed interest in the project. However, the considerable interest expressed by psychologists allowed us to sample a representative percentage of participants from each jurisdiction, who were then invited to complete the first survey (i.e., participants were pooled in their respective provinces and chosen randomly to participate). For example, Nova Scotia psychologists represent 3% of the total number of registered psychologists in Canada. Therefore, approximately 3% of the selected participants were psychologists registered in Nova Scotia who expressed an interest in project participation. There was variability in the rate of volunteering from different provinces which meant that, due to our commitment to sampling based on provincial registration data, the final sample size that we wanted to recruit for Survey 1 was increased to 540 participants.

Survey 1 was largely based on the survey instrument that was used in the pilot work. Because some modifications were made to the pilot instrument following feedback from that phase of work (highlighted in yellow on the survey in Appendix A), Survey 1 was again pilot-tested with 5 English-speaking and 5 French-speaking participants from the current sample (8 participants returned responses). No concerns regarding survey content or completion processes were encountered in this pilot testing. Once the survey was ready to be launched, invited participants were given a numeric user ID and password and a link to the survey via email. Participants completed Survey 1 online at their convenience within one month of being invited to participate. Reminder emails were sent to all participants who had not yet completed the survey a week before the survey was due to close. Survey completion deadlines were extended for a small number of participants who could not meet the original deadlines.

At the end of Survey 1, participants were asked to provide their practice schedules for a typical week. The survey software system selected a random time for the participant to complete Survey 2. This random time was one at which, based on the provided practice schedules, practitioners had seen a client. Participants completed Survey 2 approximately two months after completing Survey 1. In Survey 2, respondents were asked to base their responses on the client they had seen closest to the randomly selected time. A sub-sample of 150 psychologists was targeted to complete Survey 2 in this second phase of the project.

Survey 1 Results

A total of 538 registered psychologists and psychological associates participated in Survey 1. Each province or area was well represented according to the total number of

registrants in Canada (see Table 1 for all demographic information). The mean age of the participants was 43.6 years (*SD* = 10.2; range = 25-75 years). Approximately three-quarters of the participants were women (*N* = 399) and 26% of the participants were men (*N* = 139). More participants were registered with a Doctoral degree (59%) than with a Masters degree (41%). In terms of the area of psychology in which the participants received their highest degree, more participants had received a degree in clinical psychology (61%) than in counselling psychology (12%), clinical neuropsychology (8%), school psychology (8%), or other areas of psychology[5] (11%). Approximately one-third of participants had been practicing for less than five years (35%); 24.9% of psychologists had 6-10 years of experience, 14% had 11-15 years of experience, 11% had 16-20 years of experience, and 15% had 20 or more years of experience.

Participants indicated that they provided services to an average of 14 clients per week (*SD* = 9.5, Median = 15, range = 0-70)[6]. Eighty percent of psychologists had seen 20 clients or fewer per week and 97% of psychologists had seen 30 clients or fewer per week. It is possible that the small percentage of psychologists who see more than 30 clients per week also provide group services, but the distinction between individual and group clients was not accounted for in this survey. Participants were also asked about the general characteristics of their practice. Specifically, participants answered questions regarding the practice context (public vs. private), their practice hours, the range of ages of the clients to

[5] Twenty additional areas of psychology were listed in the "Other" category, including but not limited to Developmental psychology (1.9%), Educational psychology (1.7%), Experimental psychology (1.7%), and Social psychology (0.7%), etc. Several participants also listed having a degree with a combination of clinical and counselling psychology (0.9%) or clinical and school psychology (1.3%).

[6] These results are inclusive of practitioners in full-time, part-time, and less than part-time practice. They also include practitioners who are primarily offering (a) assessment services, (b) treatment services, and (c) consultation services.

whom they provided services, and the types of problems presented by their clients (see Table 2). Three-quarters of the participants were in full-time practice. Slightly over a third of participants were in mostly public practice with some private practice (36%), whereas approximately one quarter of participants was in either exclusively private practice (28%) or exclusively public practice (23%). The majority of psychologists reported providing services to young adults (81%) and adults (80%), but more than half of the participants provided services to adolescents (62%) and older adults (52%). Consistent with epidemiological data about the prevalence of mental health problems among Canadians (Health Canada, 2002), the majority of participants reported providing services for mood disorders (84%) and anxiety disorders (88%). Services in response to broadly defined intrapersonal issues (84%), interpersonal issues (77%), and adjustment to life stressors (71%) were also commonly provided.

Participants also indicated the nature of the service activities they provided, including the types of psychological services provided, the areas of consultation, the amount of time spent in a variety of professional activities, the clients' method of payment, and the practitioners' theoretical orientation (see Table 3). Response categories were not mutually exclusive; that is, participants had the option of selecting more than one response as it applied to their practice. The majority of participants reported that they provided individual therapy (85%), mood and behaviour assessment (74%), clinical and/or counselling consultation (65%), and intellectual functioning assessment (54%) among other services. Participants also indicated that most of their time consulting was spent with health organizations (48%) and educational institutions (36%). Not surprisingly, the bulk of

practitioners' time was spent in intervention (41%) and assessment (28%). Almost half of practitioners (48%) indicated that their clients paid for services via a publicly funded institution, whereas approximately a third of practitioners indicated that their clients paid for services directly (11% paid "out of pocket" and 23% were reimbursed by insurance). Participants were also asked to indicate the type of psychological intervention they employed (e.g., cognitive behavioural therapy, family systems therapy, etc.) and had the option of selecting all that applied. The majority of practitioners reported that they employed cognitive behavioural therapies, though other approaches were also represented.

Group differences

Analysis of variance (ANOVA), a statistical method of analysis used for numerical variables, and chi-square analysis, a statistical method of analysis used for categorical variables, were conducted to detect group differences between certain key variables. A significance value of $p<.01$ was used to minimize error rates associated with multiple comparisons. Numerous significant differences were found for the following variables: gender, degree, area of psychology, and type of practice (public vs. private practice). See Table 6 for ANOVA results and Table 7 for chi-square results.

***Gender differences*.** Male practitioners (mean age of 46.4) were significantly older than female practitioners (mean age of 42.7). Not surprisingly then, a greater proportion of male practitioners (52%) also had more than 10 years of experience in psychology. This is consistent with what we know about the changing demographics of psychologists as well as other health care professionals (e.g., medicine), wherein workforces are becoming increasingly female (Canadian Institute for Health Information [CIHI], 2008).

***Differences in attained degree*.** Differences between practitioners with Masters and Doctoral degrees were found for the following variables: average number of clients per week, professional time, methods of payment, area of psychology, province of residence, type of service provided, and presenting problems. Practitioners with Masters degrees (mean number of clients/week = 15.9) provided services to significantly more clients per week than did practitioners with Doctoral degrees (mean number of clients/week = 13.6). Participants were asked to indicate the percentage of their professional time that was spent in assessment, intervention, consultation, teaching, research, and other activities (see Table 4 for mean values and Table 6 for ANOVA results). Practitioners with Doctoral degrees spent significantly more time in assessment, teaching, and research than did those with Masters degrees. In contrast, practitioners with Masters degrees spent more time in intervention than did practitioners with Doctoral degrees. There were no significant differences between practitioners with Masters and Doctoral degrees in time spent in consultation and "other" professional activities.

Participants also reported on their clients' methods of payments (see Table 5 for mean values). They were asked what percentage of clients paid via the following methods: paid directly with no extended health insurance, paid directly with all or most reimbursed by health insurance, paid for by workers compensation, paid for by other insurer, paid for by employer assistance program, paid via publicly funded institution, or received pro-bono services. Significantly more clients of Masters practitioners than Doctoral practitioners paid directly, with most reimbursed by insurance, or paid through an employee assistance program. Significantly more clients of Doctoral practitioners than Masters practitioners

received services that were paid through a publicly funded institution or were pro-bono. There were no significant differences between Masters and Doctoral practitioners for clients who paid directly with no extended health insurance, who were covered via workers compensation, or who paid by other insurance.

Differences between Masters and Doctoral practitioners were also found in the practitioners' area of psychology; that is clinical psychology, counselling psychology, neuropsychology, school psychology, or other (see Table 7 for chi-square values). There were significantly more practitioners with Doctoral degrees practicing in clinical psychology (63%), neuropsychology (79%), and other (67%) compared to their counterparts in the same area of psychology with Masters degrees. However, significantly more practitioners with Masters degrees were practicing in counselling psychology (60%) and school psychology (74%) compared to their counterparts with Doctoral degrees.

There were differences between Masters and Doctoral practitioners in their province of residence as well (see Table 7). Practitioners in Quebec and in the eastern provinces (New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador) were more likely to have a Masters degree than a Doctorate, 69% and 63% respectively. In contrast, practitioners in the western provinces (British Columbia, Alberta, Saskatchewan, and Manitoba) and in Ontario were more likely to have a Doctorate than a Masters degree, 70% and 88% respectively. These results indicate that province of

residence is an important factor for the observed differences in the highest degree held by psychological practitioners in Canada[7].

The types of services practitioners reported providing were assessment for mood or behaviour, assessment of intellectual functioning, neuropsychological assessment, vocational assessment, individual therapy, family therapy, couple therapy, group therapy, organizational or program consultation, and clinical or counselling consultation. Practitioners with Masters and Doctoral degrees differed in the types of services they offered to their clients (see Table 7). Specifically, significantly more practitioners with Doctoral degrees than with Masters degrees provided assessments of mood and behaviour (66%), assessments of intellectual functioning (68%), neuropsychological assessments (73%), and organizational and program consultation (69%). There were no significant degree-related differences with respect to vocational assessments, individual therapy, group therapy, family therapy, couple therapy, and clinical and counseling consultations.

Lastly, there were differences between practitioners with Masters and Doctoral degrees regarding the types of presenting problems for which they provided psychological services (see Table 7 for chi-square values and Table 2 for a list of the presenting problems). Doctoral practitioners provided significantly more services than did Masters practitioners to clients with intrapersonal issues (56% vs. 44%), interpersonal issues (54% vs. 46%), cognitive functioning problems of adulthood (69% vs. 31%), psychosis (71% vs. 29%), and managing health, injury, and illness (66% vs. 34%).

[7] This link provides information on degree requirements for registration in each province: http://www.cpa.ca/psychologyincanada/psychologyintheprovincesandterritories/provincialandterritoriallicensingrequirements/

***Differences in area of psychology*.** There were differences in practitioners' age, average number of clients seen per week, and professional time depending on the psychologists' area of practice (see Table 6 for *F* values). Practitioners in neuropsychology (mean age of 39 years) were significantly younger than practitioners in counseling psychology (mean age of 45 years), school psychology (mean age of 46 years), and "other" areas of psychology (mean age of 49 years). Also, clinical psychologists (mean age of 42 years) were significantly younger than practitioners in the "other" category.

Practitioners with differing areas of practice also varied in the average number of clients seen per week (see Table 6). Neuropsychologists (approximately 6 clients) provided services to significantly fewer clients per week than did clinical psychologists (approximately 16 clients), counselling psychologists (approximately 16 clients), school psychologists (approximately 11 clients), and "other" psychologists (approximately 14 clients). School psychologists also provided services to significantly fewer clients per week than counselling psychologists and clinical psychologists. These results are consistent with the fact that the practice of neuropsychology is predominantly assessment-based and that neuropsychological assessments can take one or more days to complete.

Lastly, practitioners with different areas of practice differed in the amount of time they dedicated to certain professional activities (see Table 4 for mean values and Table 6 for *F* values). Neuropsychologists spent significantly more time in assessment and significantly less time in intervention than did clinical psychologists, counselling psychologists, and "other" psychologists. School psychologists also spent less time in intervention than did clinical psychologists and counselling psychologists, whereas clinical psychologists spent

more time in intervention than “other” psychologists. School psychologists spent more time in consultation than did clinical psychologists and neuropsychologists, whereas neuropsychologists spent significantly less time in consultation than did “other” psychologists. There were no significant differences among psychologists in different areas of practice in teaching or “other” professional activity.

***Differences between psychologists in public and private practice*.** Practitioners reported on the type of practices in which they were involved, specifically whether they were working in an exclusively public practice, primarily public with some private practice, equally public and private practice, primarily private with some public practice, or whether they were working in an exclusively private practice. Comparisons were made between practitioners in exclusively public and exclusively private practice, as well as between practitioners in all categories of practice type for the following variables: degree, average number of clients, area of psychology, province of residence, amount of professional time, methods of payment, type of service provided, consultation, and their clients’ presenting problems (see Table 6 for *F* values and Table 7 for chi-square values).

Significantly more Doctoral practitioners (67%) than Masters practitioners (33%) were in exclusively public practice. No significant differences were found when comparing only exclusively public and exclusively private practitioners regarding their average number of clients per week. When comparing all categories under type of practice, it was found that primarily public practitioners provided services to significantly fewer clients per week (approximately 12 clients) than did primarily private practitioners (approximately 16 clients) and exclusively private practitioners (approximately 17 clients). As indicated in the following

analyses, these differences are related to areas of practice and the types of services provided.

There were differences in the practitioners' practice settings that were related to their area of psychology. Significantly more clinical (63%) and counselling (54%) psychologists were in exclusively private practice than in exclusively public practice. In contrast, significantly more neuropsychologists (55%) and school psychologists (83%) were in exclusively public practice than exclusively private practice. Some differences between exclusively public and exclusively private practitioners were also found for their province of residence. Of all practitioners in Canada who were exclusively in public practice, more resided in the West (32%) and in Ontario (45%) than elsewhere in Canada. As well, of all the practitioners in Canada who were exclusively in private practice, more resided in Quebec (43%) and in Ontario (30%) than elsewhere in Canada.

Some differences were found in the amount of practitioners' professional time spent in various activities (see Table 4 for mean values and Table 6 for ANOVA results). When comparing only exclusively public and exclusively private practitioners, it was found that exclusively public practitioners spent significantly more time in teaching and research than did exclusively private practitioners. In contrast, exclusively private practitioners spent significantly more time in intervention than did exclusively public practitioners. When analyzing each category of professional activity separately across all types of practices, many differences were apparent in time spent in assessment, intervention, teaching, and research (refer to Table 4). Differences between practitioners in the equally public and

private practice category were obscured because of the small number of participants in that group.

Consistent with the nature of the settings in which services were provided, there were differences in the clients' methods of payments for exclusively public and exclusively private practitioners (see Table 8 for mean values and Table 6 for ANOVA results). Public practitioners provided services to clients whose fees were covered almost exclusively via a publicly funded institution, whereas private practitioners provided services to more clients who paid using all other listed methods. Many differences in methods of payment were evident across types of practice (refer to Table 8).

Exclusively public and exclusively private practitioners differed in the types of services they provided to clients. Significantly more exclusively public practitioners provided mood and behaviour assessments (51%), intellectual functioning assessments (64%), neuropsychological assessments (19.5%), organizational and program consultations (67%), and group therapy (64%) to their clients than did exclusively private practitioners. However, significantly more exclusively private practitioners provided individual therapy (64%), couple therapy (84%), and vocational assessments (80%) to their clients than did exclusively public practitioners. There were no differences in the provision of clinical and counselling consultation and family therapy.

Differences between exclusively public and exclusively private practitioners were also apparent in the types of consultation provided. More exclusively public practitioners consulted with health organizations (64%) and education institutions (69%), whereas more exclusively private practitioners consulted with the corporate sector (100%) and the legal

system (85%). There were no significant differences between practitioners for consultations with correctional institutions, community agencies, and “other” types of consulting.

Lastly, there were some differences between exclusively public and exclusively private practitioners regarding the types of presenting problems for which they provided psychological services. More exclusively private practitioners than exclusively public practitioners provided services to clients presenting with mood disorders (59%), anxiety disorders (61%), intrapersonal issues (61%), interpersonal issues (66%), vocational issues (75%), difficulties managing their health, injuries, and illness (67%), adjustment to life stressors (69%), somatoform disorders (71%), and sexual abuse and trauma (66%). More exclusively public practitioners than exclusively private practitioners provided services to clients presenting with psychological problems of childhood (57%), cognitive functioning problems of childhood (68%), psychosis (61%), and learning problems (62%). There were no significant differences between practitioners in services to clients presenting with personality disorders, cognitive functioning difficulties in adulthood, eating disorders, sexual disorders, sleep disorders, substance abuse disorders, and “other” problems.

Feedback about Survey 1

Participants were offered the opportunity to provide feedback about Survey 1. A review of the feedback suggested four main themes: positive comments on the survey, discussions about the implications of survey results, questions or concerns about the survey, and suggestions for improvements to the survey. Participants found the survey easy to use and to understand. The survey did not burden the participants for time and many were highly enthusiastic about participating in the project. However, some participants

noted difficulties in accurately responding to some of the questions. For example, not uncommon for surveys, participants occasionally found themselves being forced to choose between two response options when neither was necessarily accurate (e.g., full time vs. half time work hours).

We asked practitioners about their typical hours in a day; however, this was not necessarily consistent from day to day or week to week. Some practitioners offered the caveat that they may simply consult or assess a client's presenting problems (which can extend the range of options presented), but they do not necessarily *treat* the presenting problems. A portion of the participants felt that the survey was geared too much towards clinical or health psychologists that provide traditional therapy and may not account for the work of other kinds of psychology practitioners. Specifically, the work of those who focus on particular populations of individuals (e.g., children with autism) or engage in specialized practice activities (e.g., personal injury and disability assessments, family court assessments) are not well captured by the survey questions. Several wording suggestions were made for improvements to future administrations of the survey. Some practitioners engage in scholarly activities outside of their primary workplace that was not captured by the survey questions (e.g., documentation, training or supervision).

Based on this feedback, future surveys might provide more detailed definitions of private and public practice, consultation, and intervention. It might be worthwhile to ask psychologists about the limitations of their practice and how many clients they would prefer to see a week. The range of clients seen by participants was very large (0 to 70) suggesting that our sample was not a homogeneous group. It would be helpful to better understand

and define what we are asking of what kind of practitioner. Future surveys could also potentially attempt to capture the environment within which the practitioner works; with changes to health care practice in Canada (e.g., collaborative practice, specialized support to primary care), it would be useful to be able to profile where psychologists work and with whom. It might also be interesting to enquire about the number of people who contact practitioners for services but who either do not meet criteria for services, cannot afford the services, or otherwise decide not to pursue services. Finally, asking practitioners to report on changes in their practice patterns (e.g., changes in problems seen or services offered), how they evaluate their services and client outcomes, and what are the factors that do or could better support effective practice would be useful information in understanding psychological practice in Canada.

Phase 2: Survey 2

Survey Description and Development

As mentioned previously, the Survey 2 questions (see Appendix B) were also developed in the pilot phase of the project. Phase 2 of the project (i.e., the implementation of Survey 2) was intended to provide information on the demographics (e.g., age, gender, ethnicity, language, marital status, etc.) and the psychological health characteristics (e.g., risk factors, presenting problems, number of sessions attended, types of service provided, etc.) of the clients seen by Canadian psychology practitioners.

One question was added to Survey 2 that was not included in the pilot project (see the yellow-highlighted changes on Survey 2 in Appendix B). This question was added to ensure a more accurate description of who was included in the delivery of the psychological

service. The wording of six questions was adjusted for accuracy and clarity, particularly surrounding the age of the client. Survey 2 was not pilot-tested in Phase 2 of the project largely because the changes made to the pilot version were not deemed substantive and because of the relatively complex nature of real-time sampling.

Survey 2 Methodology

Selection of participants: Bootstrapping

The pilot project marked the successful development of the present web-based surveillance tool. Phase 2 of the current project established what sample size was required to represent the parent population. Bootstrapping was employed to determine how many of the 540 participants could reliably be used to represent the parent sample in completing two additional surveys. Bootstrapping involves estimating the precision of sample statistics (e.g., means, variances, percentiles) by drawing multiple random subsets of data from a larger data set.

From the complete data set of 540 participants, a random sample of 150 cases was selected for comparison to the larger data set on several variables. Frequencies, means, standard deviations, and confidence intervals were calculated on the following variables of interest: age, gender, degree, area of psychology, province, years of experience, and practice context (public versus private practice). Random subsamples of 125, 150, and 175 cases were drawn from the complete data set; this procedure was repeated for 30 iterations to ensure accuracy. The mean values of the sample statistics for each variable of interest across all 30 iterations were calculated and compared to the larger data set. For example, in the iterations, the mean age of the subset of data was calculated. The average

of these means was compared against the mean age of the larger data set. If no significant differences were detected, then the subsample could be considered an adequate approximation of the larger data set. Based on these bootstrapping analyses, a subsample size of 150 participants was chosen for Survey 2, which was consistent with the original project proposal budget for the survey.

Participants completed Survey 2 (about a randomly selected client) on two occasions; the majority of participants completed both administrations of the survey within two weeks, while others completed the surveys within a month because of the interruption of holidays. Having participants complete Survey 2 on two separate occasions allowed us to verify the consistency of the data yielded by the surveillance tool. Because participants were likely to be reporting on different clients in each wave of the survey, overall moderate levels of consistency were expected. Although we might expect wave 1 and wave 2 results to be similar in the aggregate (e.g., the types of presenting problems seen by the group of participants in each wave should be similar), the kind of service provided by the individual practitioner would reasonably differ because they would be responding about a different client in the two administrations of the survey.

Real-time sampling

Real-time sampling was the methodology used for Survey 2. It would be impractical to ask participants to report on their entire caseloads or even on multiple clients. However, we wanted some means of getting practitioners to report on a random client rather than a self-selected client. The intention of real-time sampling was to support random, rather than self-selected, reporting. One of the goals of the present project was to determine whether

real-time sampling was a valid methodology for surveying psychologists in order to gain an understanding of their practice characteristics and of the clients to whom they provide service. Real-time sampling functioned as follows:

- The survey system used a list of participant ID numbers that were to participate in Survey 2.
- The system chose a randomly selected time to schedule the participant to complete Survey 2 (e.g., Tuesday at 3:25 pm) based on the schedules provided by the participants when they completed Survey 1.
- Participants were given 48 hours from the time they were sent the email invitation to complete Survey 2.
- In the first administration of Survey 2, participants were asked to provide their availability again; this allowed the survey system to randomly re-schedule the participants for a second administration of Survey 2. The second survey invitation was sent 14-20 days after the participants completed the first administration of Survey 2. Some participants were invited approximately 30-45 days following the first administration of Survey 2 because the invitation period coincided with the Christmas holidays (fewer participants were available or providing services to clients in this time frame).

To ensure maximum participation rate, participants were informed that they would only be paid if they completed both administrations of the survey. Response rate for Survey 2 was high with most invited participants being able to complete both administrations of the survey.

Analysis and Variables

The analysis for Survey 2 was a multi-step process. In addition to calculating means and frequencies of all variables for both administrations of the survey, the consistency of the real-time sampling methodology needed to be established. A benefit of real-time sampling is that it allows for a relatively unbiased collection of data on specific clients; by aggregating these data across respondents, we hope to obtain an accurate sense of the clients who receive psychological services in Canada. However, given that data on only a single client from each participant is collected, it is possible that the aggregation of data may not accurately represent the range of clients who receive services. Consistent with procedures used in event sampling data strategies, examining the consistency of data obtained across waves allows for some evaluation of the extent to which the data on our variables are likely to adequately depict the characteristics of interest.

Numerous variables were selected for assessing the consistency of the information received across both administrations of the survey. The client's age, the number of previous sessions of services received, and the number of additional sessions to complete services were the numerical variables selected for analysis. Six additional variables were recoded to simplify analysis. The total number of risk factors, the total number of presenting problems, the total number of chronic disorders, the total number of other health care professionals seen, the total number of referrals for other health services, and the total number of additional Diagnostic and Statistical Manual IV-TR (DSM-IV-TR; American Psychiatric Association, 2000) diagnoses were created and analyzed. Normality testing revealed that all variables were non-normal except for the client's age. Client's age was therefore analyzed

using a dependent *t*-test, whereas the other numerical variables were analyzed using the Wilcoxon signed-ranks test, a non-parametric test that is used to compare two related sample populations with numerical variables. The *p* value was set at 0.01 to adjust for multiple analyses.

The categorical variables selected for analysis were: gender, client's language, nationality, ethnicity, marital status, sexual orientation, living arrangements, education, employment status, language of service, receiving other health services for the same presenting problem(s), service setting, payment method, referral source, receiving medication, type of services received, presence of a chronic disorder, appraisal of overall health status, and DSM-IV-TR diagnosis. However, because many of the variables have multiple response categories, there was no known non-parametric dependent statistical procedure available to analyze them. Variables with dichotomous outcomes (i.e., ethnicity, citizenship, receiving other health service, type of service provided, and presence of chronic disorder) were analyzed using McNemar chi-square, a non-parametric test that is used to compare two related sample populations with dichotomous categorical variables. Again, the *p* value was set to 0.01.

Survey 2 Results

Correlations

The variables of interest were correlated with their counterpart in both administrations of the survey using Spearman's rho, the correlation coefficient used for non-parametric data, except for client's age which was analyzed with Pearson's *r*. For example, client's age in wave 1 was correlated with client's age in wave 2. See Table 9 for all

correlated variables. Many of the variables were significantly correlated, with some of the variables holding a strong correlation with each other (i.e., client's age, neurological assessment, and humanistic therapy). Approximately one third of the variables did not correlate with each other: chronic disorder total, referral to other treatment, total of additional DSM-IV-TR diagnoses, nationality, assessment of mood and behaviour, psychodynamic therapy, family systems therapy, and presence of chronic disorder. The nonsignificant correlations indicate that participants' responses for these variables during the first administration of the survey were not associated with their responses in the second administration of the survey.

Consistency testing

As mentioned previously, part of the goal of Phase 2 of the project was to determine the consistency of data provided by the real-time sampling methodology. To do so, responses from the first administration of Survey 2 (wave 1) were compared to the responses from the second administration of Survey 2 (wave 2). If a variable in wave 1 was not significantly different from its counterpart in wave 2, then it can be assumed that randomly selecting a client on whom participants can base their responses is an adequate method of capturing the full range of clients seen by Canadian psychological practitioners.

Client's age was not significantly different between wave 1 (Mean age = 31.9) and wave 2 (Mean age = 33.5) of the survey, $t(138) = -1.29$, *ns*. The number of sessions with a client, the number of additional sessions required, and the total numbers of presenting problems, chronic disorders, other health services received, and additional DSM-IV-TR diagnoses were also not significantly different from wave 1 to wave 2 of the survey (see

Table 10 for *Z* scores and Table 11 for means, medians, and standard deviations). The total number of risk factors and the total number of referrals to other treatments were both significantly different in wave 1 from their counterparts in wave 2 of the survey. Although clients were similar to each other in both administrations of the survey for most of the variables that were compared (as noted above), including the number of presenting problems, it appears as though the severity of the clients' problems may have been different in each wave of the survey.

All the dichotomous categorical variables that were analyzed using the McNemar change test were not significantly different from their counterparts in both administrations of the survey (see Table 12 for chi-square values and Table 13 for frequencies). Unfortunately, many categorical variables could not be analyzed because of the lack of an appropriate significance test: gender[8], client's language, language of service, marital status, sexual orientation, living arrangements, education level, employment status, occupation, presence of DSM-IV-TR diagnosis, primary DSM-IV-TR diagnosis, health status appraisal, service setting, payment method, referral source, receiving medication, and service recipient. Despite the lack of adequate statistical tests, we can conclude that there is moderate consistency in the characteristics of the client and the services provided when selecting two clients at random from each psychologist's practice. However, we remain cautious in generalizing about client characteristics on the basis of data drawn from a random client in these practices.

[8] For Survey 2, the category of gender was inclusive of transgendered males and females. Gender, therefore, had four response options.

Frequencies and percentiles

Both administrations of Survey 2 were successfully completed by 140 psychology practitioners. Participants reported on a randomly selected client each time and these results have been organized into three categories: client demographics, client service characteristics, and client psychosocial functioning.

***Client demographics*.** All categorical client demographics are presented in Table 13, with client's age shown in Table 11. Participants provided services to female clients (65% and 54%) to a greater extent than to male clients (34% and 46%) in both administrations of the survey. However, there were slightly more female clients in the first administration of the survey. The mean age of the clients was 32.3 years (age range 5-84 years old) in the first wave and 33.5 years (age range 5-79 years old) in the second wave. Nearly all the clients were White (85% in wave 1 and 87% in wave 2) and were born in Canada (94% in both waves). Of those who were born elsewhere and moved to Canada, the majority were landed immigrants. Approximately two-thirds of the clients spoke English at home and a third of the clients spoke French at home.

The majority of clients were reportedly heterosexual, with nearly one fifth of the participants reporting their client's sexual orientation as unknown (often due to the young age of the client). Less than 5% of clients were identified as gay/lesbian and bisexual for each category in both administrations of the survey. Almost one-half of the clients in both administrations of the survey were single or never married. One-fifth and one-quarter of clients, in wave 1 and wave 2 respectively, were married. Approximately 15% of clients in both administrations of the survey were living common law with their partners. Less than

10% of clients in both administrations were reported to be separated, divorced, or widowed. Nearly all of the clients were living in a private residence (e.g., house, apartment).

Level of education (for clients over 17 years of age) was slightly variable from the first administration to the second administration of the survey. In the first administration, more participants reported that their clients had achieved some high school or a high school diploma (both categories with approximately 17% of the clients) than the other levels of education. Fewer than 15% of clients in each category reportedly achieved a college certificate or diploma and an undergraduate degree. In the second administration of the survey, the largest portion of clients had only achieved Grade 8 or lower (approximately 24%). The numbers of clients with a high school diploma and with an undergraduate degree were consistent with the first administration of the survey (20% and 14% respectively). Approximately one-third of clients in both administrations of the survey were employed full-time. Although slightly fewer clients were reported as students in the second administration (18% in the first wave versus 11% in the second wave), the number of clients working part-time, who were unemployed, or were on disability remained consistent across administrations of the survey. Of those who were employed, more clients were employed in the sales and service sector in the first administration of the survey, whereas more clients were employed in the administrative sector in the second administration of the survey.

***Client service characteristics*.** Client service characteristics are presented in Table 11 for continuous variables and Table 14 for categorical variables. Participants indicated that the average number of sessions with the selected client was 14 sessions in the first administration of the survey and approximately 24 sessions in the second administration of

the survey. The median number of sessions was 5 and approximately 8 sessions for wave 1 and wave 2 respectively. In wave 1, 51% of participants indicated they were in their fifth session or less with their client and 76% of participants were in the 15th session or less with their client. In wave 2, 50% of participants indicated that they were in the seventh session or less with their client, and 81% of participants were in the 25th session or less with their client.

Participants also reported that they anticipated 11 more sessions with the selected client on average in the first administration of the survey and 14 additional sessions on average in the second administration. The median number of anticipated sessions was 6 sessions in wave 1 and 8 sessions in wave 2. There was a broad range of anticipated sessions as well; participants had reported expecting 0-75 additional sessions in the first wave and 0-240 additional sessions in the second wave. Several outliers also contributed to the large range of anticipated sessions with the client. In wave 1, 54% of participants expected six or fewer additional sessions with their client, and 86% of participants anticipated 20 additional sessions with their client or less. In wave 2, 54% of participants expected eight or fewer additional sessions with their client, and 88% of participants expected 20 or fewer additional sessions with their client.

Two-thirds of the sessions in both administrations of the survey occurred in English, whereas the remaining third of the sessions occurred in French. Approximately one-half of the sessions in both administrations of the survey took place in a major urban centre; one-quarter of sessions occurred in a smaller city or town; 15% of sessions occurred in a suburb of a major urban centre; and only 5-7% of sessions occurred in a rural setting. Participants

indicated that approximately 40% of sessions occurred in an individual setting in private practice, one third of sessions occurred in a public health care setting, 12% of sessions occurred in a group setting in private practice, and 7% of sessions occurred in a school setting. Less than 5% of sessions occurred in each of the following: correctional facility, community or street outreach, and university or college centre. Approximately three-quarters of participants indicated that they provided services to the client alone, whereas 5% of participants noted providing services to the client and their significant other. In the first administration of the survey, 14% of clients were seen with a family member. This dropped to 6% in the second administration of the survey. Less than 5% of clients were seen with another caregiver, service provider, or with another person.

Most clients had their services paid through a publicly funded institution (37%) for both administrations of the survey. However, clients who paid directly and those who had most reimbursed by insurance were a combined proportion of 37-41%. Less than 10% of clients in each administration paid for services through worker's compensation, other insurance, their employer, by pro-bono, or other method of payment.

Nearly one-half of practitioners in both administrations of the survey indicated that they provided cognitive behaviour therapy in their session with the client. One-third of practitioners provided assessments of mood, behaviour, and personality in the first administration, whereas only one-fifth of practitioners provided this service in the second administration. Humanistic therapy and other types of services were also provided by one fifth of practitioners respectively in both administrations of the survey. Ten to thirteen percent of clients received an intellectual function assessment, interpersonal therapy, or

psychodynamic therapy respectively. Less than 10% of clients received neurological assessments, vocational assessments, or family systems therapy in both administrations of the survey.

Approximately one-fifth of clients was either self-referred or was referred to psychological services by their physician. Another health care professional referred approximately 11-13% of clients to psychological services. Fewer than 10% of clients were referred by another client, the legal system, a family member, the school system, a psychologist, a psychiatrist, or the insurance system. Forty-six percent of clients in the first administration of the survey, and 58% of clients in the second administration, were receiving other health services related to their presenting problems. Of those receiving other health services, more clients were receiving services from a general physician (29% and 24% in wave 1 and wave 2, respectively) or from a psychiatrist (22% and 19% in wave 1 and wave 2, respectively). Two-thirds of practitioners in both administrations of the survey made no additional referrals for their clients to other services. Among practitioners who referred their clients to other services, 10-13% referred their clients to other mental health treatments and 8-11% referred their clients for a medication evaluation.

Slightly more than one-half of clients were not receiving any medication. One-third of the clients were using antidepressants. Less than 10% of clients were using each of the following medications: anxiolytics (6-7%), antipsychotics (9-11%), stimulants (1-6%), hypnotics (1-2%), and mood stabilizers (approximately 4%). Participants reported that clients were mostly receiving their medication from a psychiatrist (23%) or a general practitioner (17%).

***Client psychosocial functioning*.** Client psychosocial functioning data are presented in Table 11 for continuous variables and Table 15 for categorical variables. The most frequently reported risk factor seen in clients was parental mental disorder (reported in 50% of clients in the first administration of the survey and 34% of clients in the second administration). Marital problems were the next most frequently reported risk factors, with participants noting it in 30% of clients in the first administration and 21% of clients in the second administration of the survey. Physical and sexual abuse (17-21% of clients) and other risk factors (15-24% of clients) were also reported more frequently than the remaining risk factors. More clients in the second administration were reported to have no risk factors (33%) compared to clients in the first administration (14% with no risk factors). Participants reported that clients were presenting with an average of approximately 3 psychological problems in both administrations of the survey. The most commonly reported presenting problem was interpersonal issues (41% and 36% of clients) and intrapersonal issues (51% and 38% of clients). Mood disorders and anxiety disorders were the next most commonly reported problems, 31-44% and 34-37% respectively. Approximately one-third of clients were also presenting with issues regarding adjustment to life stressors, in both administrations of the survey. The following psychological problems were reported in fewer than 10% of clients: personality disorders, cognitive functioning problems of adulthood, cognitive functioning problems of childhood, psychosis, eating disorders, sleep disorders, somatoform disorders, sexual disorders, and substance use or abuse disorders. A minority of clients were reported to have a substance abuse problem not related to their presenting

problems; 16% of clients in the first administration and 9% of clients in the second administration.

Practitioners primarily indicated that their client's daily functioning was moderately (51% of clients in the first administration and 47% of clients in the second administration of the survey) or severely (45% of clients in the first administration and 44% of clients in the second administration of the survey) affected by their presenting problems. Practitioners also noted that, as a result of services received thus far, health status improved for one-half of the clients and improved greatly for another one-fifth of the clients. According to practitioners, approximately one-quarter of clients showed no changes, however. Interestingly, approximately 50% of clients were described as likely to report their health status as good or very good, possibly because clients are not including psychological health when they appraise their overall health status.

Nearly one-half of participants reported that their clients also had a chronic disorder. The most commonly reported chronic disorders were mental functions (14% of clients in the first administration and 13% of clients in the second) and neurological functions (12% in the first administration of the survey and 11% in the second administration). The other chronic disorders listed were reported in fewer than 10% of clients. Practitioners were asked to report on their client's daily functioning regarding the presence of a chronic disorder. Approximately one-quarter of clients' had daily functioning that was moderately affected by their chronic disorder, as indicated by the practitioner. Daily functioning was affected a little or not at all for approximately another 25% of the clients. Participants indicated that a DSM-IV-TR diagnosis was present for more than one-

half of the clients (62% of clients in the first administration and 51% of clients in the second administration of the survey). Participants were asked to list their client's DSM-IV-TR diagnoses; these were sorted into one of four categories for simplification: mood and anxiety disorders, psychotic disorders, childhood disorders, and other disorders. Mood and anxiety disorders were the most commonly reported primary DSM-IV-TR diagnoses, present in 28-36% of clients. Childhood disorders were reported in 6-9% of clients, whereas psychotic disorders were reported in less than 2% of clients. Approximately two-thirds of clients with additional DSM-IV-TR diagnoses were reported to have only one additional DSM-IV-TR diagnosis. One-quarter of clients with an additional DSM-IV-TR diagnosis were to have two additional diagnoses.

Comparing Results between Survey 1 and Survey 2

The results of Survey 1 provided general information on Canadian psychology practitioners and the services they provided to clients. The data obtained from Survey 2 complimented this information by allowing practitioners to provide a more detailed picture of specific clients and the services provided in a particular session. We were able to corroborate and expand upon the information obtained from Survey 1 with the data obtained in Survey 2. The surveys were comparable in five areas: client age group, presenting problems, practice setting, method of payment, and the types of services provided. The data from Survey 1 and Survey 2 were also combined to conduct additional chi-square analyses, comparing the presence of a DSM-IV-TR diagnosis across degree attained and practice setting (private vs. public practice).

The majority of practitioners who completed Survey 1 indicated that they provided services to young adults (81%) and adults (80%). Nearly two-thirds of practitioners indicated that they provided services to adolescents (63%) and approximately one-half of practitioners provided services to older adults (52%) and children (46%). These numbers were broadly representative of the practitioners' clients. When looking at the ages of the specific clients in Survey 2, there were some expected differences from what was reported in Survey 1. More than one-half of the clients were adults (56% in wave 1 and 61% in wave 2). Approximately one-fifth of clients were adolescents (19% in wave 1 and 17% in wave 2) and one in ten clients was a young adult (12% in wave 1 and 9% in wave 2). The fewest number of clients were children (9% of clients in both waves of the survey) and older adults (4% of clients in both surveys). In brief, this means that, although many psychologists provide services to a broad age range of clients, most of those actually receiving services are adults and adolescents.

Looking at the five most prevalent presenting problems, there were some similarities between the types of problems for which practitioners provided services and the percentage of clients who actually received those services. The most frequently reported presenting problem in Survey 2 was the general category of intrapersonal issues (51% in wave 1 and 38% in wave 2). Practitioners indicated that this was a prevalent problem in Survey 1 (84% of practitioners). Intrapersonal issues was nearly as common as anxiety disorders (treated by 88% of practitioners) and on par with mood disorders (treated by 84% of practitioners as well) as indicated in Survey 1. Mood disorders were reported with similar frequency in clients in Survey 2 as anxiety disorders, particularly in the first wave of Survey

2 (44% and 31% of clients had mood disorders compared to 37% and 34% of clients with anxiety disorders). Interpersonal issues (41% and 36% of clients in each administration of Survey 2) were also as frequently reported in clients in Survey 2 as mood and anxiety disorders, although this presenting problem was slightly less frequently noted in Survey 1 (treated by 78% of practitioners). The reporting of adjustment to life stressors was similar in both surveys; it was the fifth most common presenting problem in both cases. Approximately one-third of clients were receiving services for adjustment issues (33% in wave 1 and 31% in wave 2), while 71% of practitioners indicated they provided services for adjustment to life stressors in Survey 1.

In the first survey, participants were asked about their practice context in general. Twenty-eight percent of practitioners had identified their practice as exclusively private. In the second survey, participants were asked the type of practice setting in which the client was receiving psychological services (e.g., individual private setting, group private setting, public health care, etc.). In both waves of Survey 2, 41% of clients were seen in an individual private practice setting and 13% of clients were seen in a private practice group setting. The number of practitioners in public practice was also different from Survey 1 to Survey 2; 23% of practitioners were in exclusively public practice in Survey 1 and 31% of practitioners provided services to clients in exclusively public practice in both waves of Survey 2. The differences in numbers are likely because one-half of the practitioners in Survey 1 identified that their practice was a combination of private and public practice. But it appears that more of these practitioners with a combination of private and public practice responded to Survey 2 regarding a private practice session.

Practitioners indicated that clients paid for services primarily through a public institution or directly out of pocket (with most or none reimbursed by insurance). Responses were similar between Survey 1 and Survey 2. Thirty-four percent of practitioners in Survey 1 indicated that clients paid for services directly. In Survey 2, practitioners indicated that 31% (wave 1) and 41% (wave 2) of clients had paid for services directly. Nearly one-half of practitioners reported that services were paid via publicly funded institution in the first survey. The proportion of clients who received services paid via public institution decreased slightly to 38% in wave 1 of Survey 2 and 37% in wave 2 of Survey 2.

The majority of practitioners indicated in Survey 1 that they provided mood, behaviour, and personality assessment services (74%). This was also the most frequently provided assessment in Survey 2, with 32% of practitioners providing a mood, behaviour, and personality assessment in wave 1 and 19% providing the assessment in wave 2. Approximately one-half of practitioners reported that they provided intellectual assessments in Survey 1 (54%). Intellectual assessments were the second most frequently provided assessment in Survey 2 as well, with 14% of clients receiving an intellectual assessment in wave 1 and 13% of clients receiving the assessment in wave 2. Fewer practitioners reported providing neurological assessments (17%) and vocational assessments (14%) in Survey 1. Similarly in Survey 2, very few clients received a neurological assessment (7% in wave 1 and 6% in wave 2) or a vocational assessment (4% in both waves of the survey).

The majority of practitioners indicated in Survey 1 that they provided cognitive behavioural therapy (80%), often in combination with other types of therapy such as

humanistic or experiential therapy (31% of practitioners), interpersonal therapy (23%), psychodynamic therapy (26%), or family systems therapy (21%). In line with these findings, more clients received cognitive behavioural therapy in Survey 2 than the other types of therapy (47% of clients in both waves of the survey). Many clients were also receiving humanistic or experiential therapy, 24% of clients in wave 1 of Survey 2 and 20% of clients in wave 2. Fewer clients were receiving interpersonal therapy (11% of clients in wave 1 and 14% of clients in wave 2) and psychodynamic therapy (11% of clients in both waves of Survey 2). The fewest number of clients were receiving family systems therapy, 5% of clients in wave 1 and 6% of clients in wave 2.

Additional chi-square analyses were conducted when combining data from Survey 1 and Survey 2. The presence of a DSM-IV-TR diagnosis differed depending on the practitioner's attained degree (Masters or Doctorate) and practice setting (private or public practice). For wave 1 data of Survey 2, significantly more practitioners with Doctorate degrees (88%) than practitioners with Masters' degrees (51%) had diagnosed clients with a DSM-IV-TR disorder, χ^2 (1) = 19.03, $p < .001$, *Cramer's V* = .41. Significant differences were also found for the practitioners' practice setting in wave 1. Significantly more public practitioners (92%) than private practitioners (64%) had diagnosed clients with a DSM-IV-TR disorder, χ^2 (1) = 9.03, $p = .003$, *Cramer's V* = .32. Findings for wave 2 were similar for both variables. Significantly more practitioners with Doctorate degrees (72%) than practitioners with Masters degrees (42%) had diagnosed clients with a DSM-IV-TR disorder, χ^2 (1) = 10.75, $p < .001$, *Cramer's V* = .30. Lastly, significantly more public practitioners (75%) than private practitioners (43%) had diagnosed clients with a DSM-IV-TR disorder, χ^2 (1) = 9.29, $p = .002$,

Cramer's V = .32, in wave 2. As noted earlier, whereas Doctoral practitioners are more likely working in public institutions, Masters practitioners are more likely working in private practice—this is perhaps due to the fact that public institutions rely on the broader or deeper scope that is more typical of a doctoral-prepared practitioner, such as with specialized assessment of complex cases and disorders, and research expertise.

Phase 3: Focus Groups

Focus groups were held in the summer of 2010 with psychology practitioners in three major Canadian cities: Ottawa, Halifax, and Vancouver. The purpose of the focus groups was to gather information from psychologists with various practice backgrounds to help determine the content of two additional targeted surveys. We were also interested in knowing what types of issues or concerns Canadian psychologists might encounter in their practice.

Focus Group Participant Demographics

A total of 19 psychology practitioners participated in the three focus groups (see Table 16 for a complete list of demographics). Participants had a mean age of 51.89 years (*SD* = 11.1; range = 32-66 years old). The majority of participants were female (79%) and had doctorate degrees (95%). Approximately one-half of focus group participants had a degree in clinical psychology (52%), while fewer participants had degrees in counselling psychology (16%), clinical neuropsychology (11%), and "other" (21%). Participants who indicated "other" had degrees in either developmental, experimental, or social psychology. Nearly one-half of participants had been practicing psychology for greater than 20 years (47%), while 21% had been practicing psychology for 11-20 years, and 32% had been

practicing for less than 10 years. The majority of participants (79%) had some form of private practice; 42% were in exclusively private practice and 37% were in some combination of public and private practice. The remaining participants were in exclusively public practice (21%). More than one-half of participants were practicing full-time (63%), with 32% of psychologists working half-time or less.

The participating psychologists were spending more of their professional time in intervention (38%) and assessment (22%) on average than they were in other professional activities, such as consultation (12%), teaching (12%), research (5%), and "other" (11%; which includes occasional supervision). Participants also offered a variety of services to clients in general, including assessment of mood and behaviour (58% of practitioners), assessment of intellectual functioning (32%), neuropsychological assessment (21%), individual therapy (79%), family therapy (32%), couple therapy (32%), group therapy (21%), organizational or program consultation (11%), and clinical or counselling consultation (47%). A range of theoretical orientations was endorsed as well, with more participants using a cognitive behavioural approach (53%) than other approaches, such as interpersonal (37%), psychodynamic (26%), humanistic (26%), family systems (26%), and "other" (26%, which includes experiential, hypnotherapy, energy psychology, and solution-focussed therapy). Participants indicated that they additionally provided a variety of consultation services, primarily to health organizations (42%), education institutions (42%), and community agencies (32%). Fewer consultation services were provided to the corporate sector (11%), the legal system (21%), and "other" (16%, which included government organizations and parents). Twenty-six percent of practitioners did not provide consultation services.

Focus group participants indicated providing psychological services to clients in various age groups. More than one-half of practitioners included adolescents aged 12-17 years (58%), young adults aged 18-25 years (68%), and adults aged 26-59 years (60%) in their services. Slightly fewer practitioners provided services to children under 12 years of age (47%) and adults over 60 years of age (42%). Participants also noted that they provided services for a range of presenting problems. The most prominent among these included mood disorders (68%), anxiety disorders (68%), intrapersonal issues (74%), interpersonal issues (63%), psychological and psychosocial problems of childhood (53%), adjustment to life stressors (63%), and sexual abuse and trauma (47%). Practitioners provided services for the following presenting problems to a lesser extent: personality disorders (32%), vocational issues (16%), learning problems (37%), cognitive functioning problems of adulthood (11%), cognitive functioning problems of childhood (32%), psychosis (5%), managing health, injury, and illness (37%), eating disorders (32%), sleep disorders (32%), somatoform disorders (21%), sexual disorders (16%), substance use and abuse (21%), and “other” problems (21%, which included attachment issues, dealing with adoption, separation/divorce, parenting issues, health related phobias, etc.). More of the practitioners’ clients paid for services via publicly funded institution (47%), directly with most reimbursed (42%), or directly with no reimbursement from insurance (24%). Very few of the practitioners’ clients paid for services via workers compensation (6%), other insurance (6%), employee assistance program (6%), or received pro-bono services (6%).

There were no significant differences between practitioners in the different cities (Ottawa, Halifax, and Vancouver) regarding age and average number of clients seen per week (M = 12.21, SD = 8.47; average for all focus group participants combined).

Ottawa Focus Group

The first focus group was held in Ottawa, Ontario with practitioners who provided psychological services to children and/or youth. Feedback from Survey 1 and Survey 2 indicated that these surveys were inadequate in assessing practice activity with child and youth clients. Therefore, we enlisted the help of nine local psychology practitioners to revise the content of Survey 2 questions to increase the relevancy of the questions to a child and youth client population (see Phase 4: Survey 3 for more information on the development of a survey on child and youth clients). The focus group participants also discussed the changing roles of psychologists today, the prominent presenting problems, and ideas for future sentinel surveys, outlined as follows:

Changing roles

- Consultation and collaboration (bottle necks, time),
- Attention to outcomes

Prominent presenting problems

- Family issues and divorce,
- Parenting issues,
- Technology-related (cyber-bullying),
- Achievement in boys,
- Increasing severity of problems,

- Increasing self-harm,
- Psychoses,
- Younger children presenting for services,
- Mental illness in parents

Sentinel survey ideas

- Divorce,
- Collaborative practice

Halifax Focus Group

The second focus group was held in Halifax, Nova Scotia with practitioners who provide psychological services in a public health care setting. Five psychology practitioners also provided feedback surrounding the changing roles of psychologists, the prominent presenting problems, and ideas for future sentinel surveys, outlined as follows:

Changing roles

- Less service delivery and more supervision of students and other providers,
- More triage,
- Conditions of work increasingly less appealing than private sector,
- Public practice workforce is early or late career,
- Prompter discharges and more outpatients,
- Higher demand for services,
- There is a need for telehealth, but barriers are present,
- Needed attention to the match between need for services and service supply

Prominent presenting problems

- Impact of lifestyle on health,
- Depression and anxiety,
- Management of more complex and severe illness with which people live,
- Aging populations

Sentinel survey ideas

- Complex and comorbid conditions,
- Knowledge transfer and education

Vancouver Focus Group

The last focus group was held in Vancouver, British Columbia with practitioners who provide psychological services in a private practice setting. The five psychology practitioners in this city provided feedback in similar areas as the previous two focus groups, notably surrounding the changing roles of psychologists, the prominent presenting problems, and ideas for future sentinel surveys.

Changing roles

- More demand for couple therapy, earlier in their relationships,
- Client identifying treatment needed rather than presenting problem,
- More anxiety than depression,
- Different kinds of addictions (e.g., internet),
- Environmental stresses (work, economy),
- Need for models that support collaborative practice

Prominent presenting problems

- Depression,
- Anxiety,
- Relationships,
- Specialized service or technique,
- Adolescents,
- Couples,
- Coping with other chronic health conditions

Sentinel survey ideas

- Psychological issues and functioning rather than mental illness

Focus Group Conclusions

With the help of the psychology practitioners who provided services to children and youth, we were able to develop a relevant and detailed survey on child and youth clients (Survey 3: details on the development and content are below). The feedback obtained from the other two focus groups led us to develop a survey on chronic health conditions, namely cardiovascular disease and diabetes, and comorbid psychological problems (Survey 4: details on the development and content are below).

Phase 4: Survey 3

Survey Description and Development

As mentioned previously, Survey 2 (a general survey about a randomly selected client) did not adequately capture the broad range of client experiences among psychology practitioners who provide services to children and youth under 18 years of age. Survey 3

was therefore developed in conjunction with psychology practitioners who provide psychological services to this client group. Consulting with a knowledgeable group of practitioners allowed us to develop client-focussed questions that were appropriate for the age group in question and reflective of their clinical demographics and psychosocial functioning.

Based on the feedback obtained from the Ottawa focus group, several wording changes were made to Survey 2 questions so that they were more applicable for child and youth clients. These changes are described as follows (all questions that have been modified from Survey 2 are highlighted in yellow in the Survey 3 Questionnaire, see Appendix D). Because parents, teachers, or others are often involved in the psychological services of a child or youth client, the term "identified client" was used in the questions wherever necessary, replacing "client". The response options for many questions were also altered to be more reflective of child and youth experiences. The questions that were changed include the client's living arrangements (i.e., single residence, multiple residences, foster care, and group home were added in place of private residence, residential care, and institutional setting), risk factors (i.e., 11 response options were added and one was modified), presenting problems (i.e., 11 response options were added and two were removed), DSM-IV-TR diagnoses (i.e., participants were given the option of indicating "I do not use the DSM-IV-TR"), referrals (i.e., four response options were added), and method of payment for services (i.e., three response options were added and two were removed).

Two questions were reworded to increase clarity and appropriateness for the clientele; these included work status (i.e., being mindful of the differing ages of

employment across Canada and asking broadly whether the client has paid work in any capacity) and presence of a chronic disorder (i.e., by adding the phrase “but that is *not* the presenting problem” to the end of the question to distinguish between primary and comorbid chronic issues). Another two questions were altered in structure to gather more accurate information. In Survey 2, participants were asked to select the types of services they provided to the randomly selected client from a given list of various assessments, treatments, and consultations. This was changed for Survey 3, where participants were asked to indicate generally whether they provided an assessment, treatment, or consultation to the selected client (or any combination thereof) during the randomly selected client session. Participants then had the opportunity to indicate what types of assessment, treatment, and/or consultation they provided to the client in an open-ended question. The other question that was altered from Survey 2 to Survey 3 was the total number of sessions previously provided to the client. Rather than ask participants to indicate in general how many sessions they have had with the client, they were asked to specify how many sessions were allotted for assessment, therapy, and consultation separately.

In addition to modifying some of the existing questions from Survey 2, it was necessary to add new questions to Survey 3. Questions were added to Survey 3 regarding the identified client’s family structure, school attendance (including current grade and whether the identified client was ever held back), type of school, special classes or programs, consultations with members of the school system, consultations with other parties involved with the identified client, the effects of chronic disorders on the family (if

present), the family's participation in community services or support, the city setting of the identified client's residence (e.g., rural, suburb, urban), and the top three factors that challenged the psychologist participant in providing the best possible service for the selected client. Refer to the green highlighted questions in Appendix D for the complete versions of the new questions.

Recruitment and Administration

Participants were recruited to participate in Survey 3 via the master list of participants that was obtained in the initial recruitment process of Survey 1; the list contained contact information for nearly 1000 psychologist practitioners across Canada. The majority of participants on the list were sent a general recruitment message aimed at practitioners who provide psychological services to children and youth (see Appendix E). Because of the large number of Ontario practitioners who showed interest in the original project, approximately one half of Ontario practitioners were sent the recruitment information. Over 200 participants responded with an interest in participating in Survey 3. The majority of practitioners indicated that they primarily provided services to children and youth, although for some participants the child and youth client population was a small portion of their practice.

All practitioners who expressed an interest in participating in Survey 3 were sent an email invitation detailing more information about the project in general (see Appendix F) and inviting them to complete an Eligibility Survey. The Eligibility Survey (see Appendix G) had two primary purposes: to gather basic demographic information on the participants who completed Survey 3 (e.g., psychologist practitioner's age, degree attainment, gender,

area of psychology, province, public or private practice, etc.) and to allow us to select a random time for each participant to complete the actual survey (i.e., real-time sampling methodology).

It was originally intended that Survey 3 utilize real-time sampling in much the same way as that used in Survey 2, but the database that housed the surveys and the coding for real-time sampling encountered technological problems at the time of survey administration. Survey invitations were therefore sent manually instead of automatically because the scheduling tool (i.e., the code that reads a participants' client availability and selects a random day and time within that availability for the participant to complete the survey) was not functioning properly. Considering the project needed to meet deadlines to be completed on schedule, there was not enough time to fix the scheduling tool when Survey 3 was due to launch. To circumvent these issues, the Project Manager inputted the participant usernames and availability into a spreadsheet. The abridged version of Fisher and Yates' (1974) Random Numbers Table was used to randomly assign a day and time for each participant to complete the survey. More details on this process are included in the Survey Procedures Manual. Each participant was sent his or her survey invitation at a randomly scheduled time (throughout the work day, inclusive of Monday to Friday), albeit not as precise a random time as it would have been with real-time sampling methodology. Participants who missed their invitation deadline (i.e., the survey needed to be completed within 48 hours) were re-invited to complete the survey the following week.

Survey 3 Results

Survey 3 was successfully completed by 137 psychology practitioners. Participants reported on a randomly selected child or youth client and these results are outlined as follows: practitioner demographics, client demographics, client service characteristics, client psychosocial functioning, differences between groups of practitioners, within-client differences, and the primary challenges Canadian psychologists faced in service provision with the randomly selected client. Frequencies and percentages were calculated for all of the categorical variables; means and standard deviations were calculated for the corresponding numerical variables in the survey. Group differences were analyzed with one-way ANOVAs or chi-square tests depending on the variable in question.

Practitioner demographics

Participants were 42.69 years old on average (*SD* = 9.56) and ranged in age from 27 to 72 years old. Similar to results from the previous surveys, the majority of participants were female (80%). The province of residence for participants was consistent with the previous surveys as well. Thirty-one percent of psychologists indicated living in Quebec, the highest represented province. Fewer participants represented Alberta (12%), British Columbia (13%), Ontario (15%), and Nova Scotia (15%). Less than 5% of participants indicated living in each of the following provinces: New Brunswick, Prince Edward Island, Saskatchewan, Manitoba, and Newfoundland and Labrador.

Interestingly, the number of participants holding Masters degrees (51%) marginally surpassed the number of participants holding Doctorate degrees (49%), quite unlike the previous surveys. More of these practitioners were holding degrees in clinical psychology

(51%). School psychology (22%) was the next most frequently held degree. Fewer participants were holding counselling psychology degrees (9%), clinical neuropsychology degrees (7%), developmental psychology degrees (3%), and "other" degrees (9%; which often included degree combinations among clinical, developmental, educational, and forensic). The majority of participants (88%) indicated that they primarily provided psychological services to children and youth and this more frequently occurred in a public practice setting (68%). All practitioner demographics can be found in Table 17.

Client demographics

Of the 137 child and youth clients that were reported on in the survey, 51% were female, 48% were male and 1% were identified as transgendered. Clients were, on average, 11.85 years old (*SD* = 3.82) and ranged in age from 1 year to 18 years old. The sexual orientation of the client was marked as "unknown" for more than one-half of the clients (57%). Among practitioners who were aware of their client's sexual orientation, 39% had indicated their client was heterosexual, 3% indicated their client was bisexual, and 1.5% indicated their client was gay or lesbian. The most common family structure for the child and youth clients included in this study was two parents, married or common law (50%). The next most common family structure was having a single parent (18%). The remaining 30% of child and youth clients had a family structure that resembled one of the following: a blended family (9.5%), foster care (6%), joint custody (5%), extended family caregiver (2%), or "other" (8%; which included a group home, widowed parent, the ward of court, or a combination of structures). The child and youth clients included in this survey were

primarily living in a single residence (78%). Fewer clients were living in multiple residences (12%), foster care (7%), or a group home (3%).

More of the clients spoke English (65%) at home, but approximately one-quarter spoke French (26%) at home. Nine percent of clients spoke a different language altogether at home, which included Punjabi (1.5%), Spanish (1.5%), and bilingualism (1.5%) among others. The majority of clients were White (82%). Within the 18% of clients who had other ethnic backgrounds, the primary ethnic identities were Aboriginal (4%), Latin American (3%), South Asian (3%), Arab (2%), or multi-ethnic (3%). The majority of clients were Canadian-born (93%), but among those who moved to Canada after birth, 5% were immigrants. Clients who had immigrated had been living in Canada for approximately 6 years on average (*SD* = 4.44).

The majority of the participating clients were attending school (87%), but 11% were not attending school. Two percent of practitioners were unsure whether their client was attending school or not. Among the clients who were attending school, the majority were attending a publicly funded school (77%). Approximately 10% of clients were attending a privately funded school and 13% of clients were not old enough to attend school at the time of the survey. More than one-half of child and youth clients were enrolled in special programs at school, which included programs for slow learners[9] (44.5%), learning disorders (28%), behaviour issues (19%), developmental disabilities (4%), gifted students (3%), mental health issues (2%), and "other" (6%; which include various programs for communication/language among others). On average, clients were in the 6th grade (*SD* =

[9] The term "slow learner" was recommended for use by members of the focus group panel, as it conveys the broad range of academic problems that may or may not meet diagnostic criteria.

3.47), but this ranged from junior kindergarten/kindergarten to grade 13. Fourteen percent of clients had been held back a grade, but 3% of practitioners were unsure whether their client had been held back a grade. Seventy-one percent of clients did not work in any capacity. Approximately 7% of clients had a part-time job and 3% of practitioners indicated they were unsure whether their client worked or not. All child and youth client demographics are listed in Table 18.

Client service characteristics

Similarly to Survey 2, practitioners who responded to Survey 3 were asked to specify the types of services they provided to the child or youth client or any other services that the client may be receiving in conjunction with psychological services. The data for the client service characteristics are outlined in Table 19. The majority of client sessions occurred in English (72%), while some occurred in French (28%), and one session was offered in Punjabi. Practitioners indicated providing a range of services in the randomly selected client session. They were most frequently providing treatment (56%) and assessment (55.5%) to their clients. Consultations occurred the least frequently (28.5%). Participants were asked to describe, in an open-ended format, the types of assessment, treatment, and/or consultation that they provided to the client; see Figure 1 for a summary of the services provided.

The participating practitioners listed five different types of assessments that they provided to their child or youth client during the randomly selected session: intake, psycho-educational, neuropsychological, mental health, and other types of assessments. A minority of practitioners were conducting intake assessments with their client, which was typically a

clinical interview with the client and their family. More frequently, psychology practitioners indicated providing psycho-educational assessments to determine whether the client had learning difficulties or to review the client's cognitive ability, academic achievement, or social and emotional factors that may have been interfering with school functioning. One participant noted that they provided a psycho-educational assessment to determine whether the client was eligible for continued funding. Practitioners indicated using a variety of psychometric tests to measure intelligence, memory, vocabulary, visual-motor skills, behaviour, and auditory processing. These tests included the WISC-IV and the WAIS-IV (for intelligence testing), the VMI (for hand-eye coordination), the WIAT-II (for academic skills), the Conners test (for parent/teacher observation of ADHD symptoms), the PPVT and EVT (for vocabulary), the TAPS (for auditory processing), the BASC-2 (for behaviour assessment), and the TVPS-3 (for visual perception). Many practitioners were providing neuropsychological assessments— to assess executive functioning, cognitive functioning, behavioural functioning, and/or affective functioning—and mental health assessments—to assess diagnoses and treatment recommendations. The participants indicated using mental health assessments specifically to target depression, anxiety, anger, eating disorders, suicidal behaviours, or spectrum disorders. A minority of practitioners also noted using assessments for standardized testing, observation, or to determine parenting capacity, school readiness, and psychosocial issues.

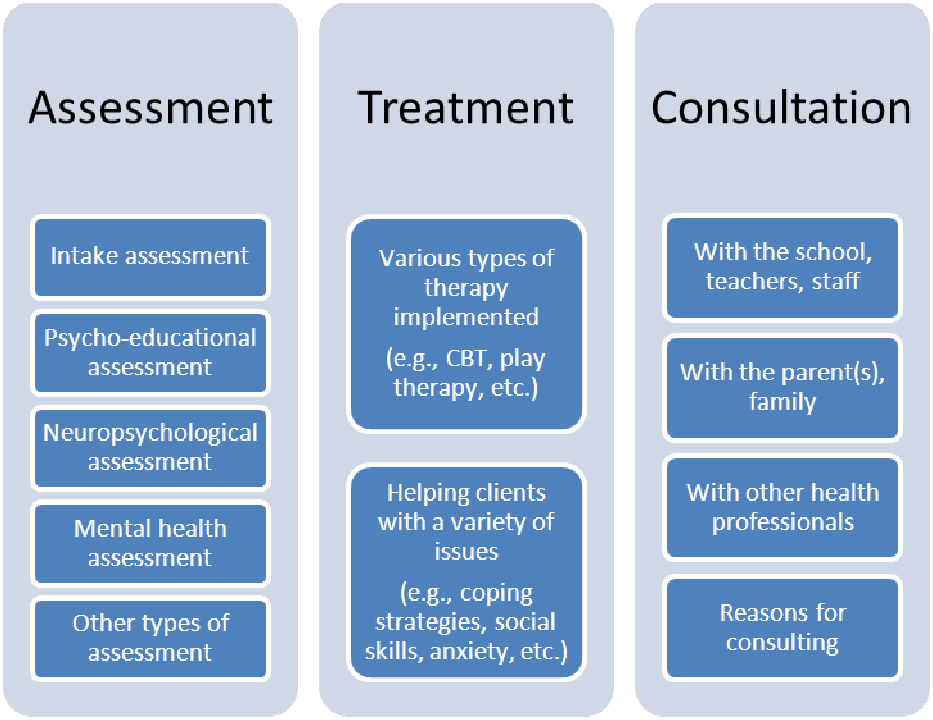

Figure 1. Survey 3: Services provided to child and youth clients

Treatment approaches for child and youth clients were highly variable. The most frequently reported approach was cognitive behavioural therapy (CBT). A minority of participants provided only CBT to their clients. Many more participants used CBT in conjunction with other types of therapy, which included family systems, dialectical behaviour therapy, mindfulness, insight-oriented, humanist/existential, interactive, play therapy, solutions-oriented, narrative, and hypnotherapy among others. Treatment often occurred in an individual setting, but some clients were receiving group therapy. Practitioners indicated that they provided treatment for a variety of problems, including but not limited to coping strategies, fostering resiliency, improving communication, self-esteem

support, pain management, support for the parents or family, anger management, parent training, and addressing emotional and behaviour problems.

As mentioned previously, fewer practitioners provided consultations during the randomly selected client session. Among those that did provide consultation, practitioners indicated consulting primarily with the parent(s) or family and the school staff. Some practitioners also indicated that they consulted with other professionals, including other partners in care, the family psychiatrist, or program personnel. The reasons for consulting revolved around academic and/or social programming, diagnostic and/or symptom presentation, managing behaviour problems in the classroom, school attendance, reviewing assessment results and recommendations, or to develop a cooperative approach regarding treatment.

Psychology practitioners responded to additional questions about consultations in this survey. Within the school system, practitioners were consulting primarily with teachers (47%) for this particular client. The next most frequently consulted people within the school system were the principal or vice-principal (28%), another psychologist (22%), or the Education Assistant (15%). Percentages equal greater than 100% because participants could choose more than one option. The least frequently consulted people within the school system were the guidance counsellors (4%) and the school counsellor (2%). Approximately 39% of practitioners did not consult anyone from the school system for the randomly selected client.

The parent(s) of the child or youth client was frequently seen over the course of psychological services (80% of practitioners indicated the parents were involved in

treatment). The psychology practitioner also noted that other family members (14%), the family physician (10%), “others” (11%; including friends, another psychologist, psychiatrist, or occupational therapist), or community support staff (8%) were involved in treatment of the client as well. Fewer practitioners noted that social workers (5%) or specialist physicians (4%) were also involved in treatment of the client. During the randomly selected client session for which the participants were reporting on, more than one-half of the practitioners had seen the identified client alone (58%) during that session. For 35% of practitioners, the parents were included in the session. In less than 10% of sessions, family members (4%), other caregivers (4%), other service providers (5%), or “others” (9.5%; including group therapy clients, school staff, or an interpreter among others) were involved in the session.

Participants were also asked to report on the client’s medication use and its relation to the presenting problem. Slightly less than one-third of the clients were taking medications (30%); 1.5% of practitioners were unsure whether their client was taking any medication. Among the child and youth clients who were taking medications, the most common medications were stimulants (15%), antidepressants (12%), and antipsychotics (11%). Fewer clients were taking anxiolytics (2%), mood stabilizers (1.5%), or “others” (2%). Among the psychology practitioners who indicated that their client was taking medication, 58.5% noted that it was primarily prescribed by a psychiatrist. Approximately one-fifth of clients taking medications had it prescribed by their family physician (22%) or a paediatrician (19.5%). Nearly one-quarter of practitioners noted that their randomly selected client was taking medication that was related to their presenting problem (23%),

but only 10% of practitioners noted that their client was taking medication that was unrelated to the presenting problem.

Approximately one-quarter of practitioners indicated that their client was also receiving another health service for the same presenting problem (26%). Clients received other health services from a wide range of professionals, including psychiatrists (39% of clients receiving other health services), general practitioners (25%), social workers (19%), social service agencies (14%), other psychologists (17%), occupational therapists (11%), counsellors (8%), or "others" (25%; such as nurse practitioners, physiotherapists, or probation officers among others). Nearly one-quarter of practitioners also indicated that their clients were receiving community-driven services, most notably a community resource or health centre (56% of clients accessing community-driven services). But some clients were also accessing parent training (28%), support groups (12.5%), social skills groups or classes (12.5%), tutoring (9%), or "other" kinds of programs (34%; including child protection services and health care among others).

Psychologist participants indicated that the client was referred to them from a variety of sources. More of the clients were referred by their parents (35%) or the school system (33%). Fewer clients were referred by social services (13%), their family physician (12%), another psychologist (9.5%), or another health care professional (9.5%). The fewest number of clients were self-referred (6%) or were referred by one of the following: psychiatrist (7%), legal system (5%), another client (5%), a family member (2%), a professional referral service (1.5%), or a community service (1%). More than one-half of practitioners also indicated making recommendations for clients to be referred to other

services, including educational services (16%), parent training (14%), medication evaluation (12%), other mental health treatment (10%), psychological assessment (9.5%), or other health services (14%). A minority of clients received referrals for child and family services (6%), a general practitioner or specialist physician (5%), support or self-help (4%), social services (3%), substance abuse treatment (2%), housing (1.5%), activities of daily living (1%), or "others" (9.5%; including assessments, other health professionals, or vocational services among others).

Participants indicated that their clients lived in a diversity of city settings. One-third of the randomly selected clients were living in a major urban centre (34%), and one-quarter of clients each lived in a suburb of a major urban centre (25.5%) or a smaller city or town (26%). The fewest number of clients lived in a rural setting (14%). Similar results were reported for the participants' practice setting. Nearly one-half of psychology practices were located in a major urban centre (47%) and approximately one fifth of practices were each located in a suburb of a major urban centre (22%) or a smaller city or town (19%). Again, the fewest number of practices were located in a rural setting (12%). More than one-half of psychological services were held in a public setting—35% of services occurred in a public health care organization and 21% occurred in a school—compared to 40% of psychological services that were held in a private setting—31% of sessions occurred in individual practice and 9% of sessions occurred in group practice. A minority of psychological services were held in other settings (4%), including detention centres, community programs, or child welfare agencies. Participants indicated that psychological services were primarily publicly funded (48%), although some services were paid in full by a public agency (21%) or the

services were paid for directly by the client's caregivers and were reimbursed in full (13%). Fewer participants noted that services were paid directly with no reimbursement (4%), directly with some reimbursement (9%), pro-bono (1%), or "other" method of payment (6%; including insurance or employee assistance among others).

Client psychosocial functioning

Participants reported on their client's psychosocial functioning, which meant that practitioners described their client's risk factors, presenting problems, DSM-IV-TR diagnoses, daily functioning, status of change with the problem, presence and type of chronic disease, health status appraisal, and substance use (see Table 20). The most commonly reported risk factors among the randomly selected clients were academic performance problems (52%), parental mental disorder (48%), marital problems in the family (47%), and aggression or anger (38%). The following risk factors were reported in approximately one-fifth of clients: unusual fears (23%), attachment difficulties (22%), school avoidance (20%), and exposure to traumatic events (20%). Slightly fewer clients were reported to be at risk for mental health issues because of physical and/or sexual abuse (18%), bullying (17%), removal from the family (15%), bereavement (12%), and a mental health diagnosis (10%). The most infrequently reported risk factors, present in less than 10% of clients, were mobility (i.e., frequent moves; 9.5%), other health problems (9.5%), physical disability (7%), brain injury (3%), pre-term birth (3%), and congenital health problems (2%). Twenty percent of practitioners indicated their client presented with "other" risk factors, including involvement of child protection services, other types of abuse, developmental problems, and parenting issues among others). Five percent of psychology

practitioners indicated their client did not have any risk factors and four percent were unsure of their client's risk factors. Interestingly, only 12% of clients presented with one risk factor. As shown in Table 20, more than one-half of clients (58%) had between 2 and 5 risk factors and nearly one-quarter of clients (23%) had 6 or more risk factors. On average, participants indicated that clients had approximately 4 risk factors (*SD* = 2.71).

Participants indicated that their clients presented with a variety of psychological issues. On average, clients were presenting with 3.5 psychological problems (*SD* = 2.33). Similar to the frequency of occurrence of the client's risk factors, 27% of clients had 5 or more presenting problems, one-half of clients presented with two to four psychological problems. Approximately one-quarter of clients presented with one psychological problem. The most commonly reported presenting problems among child and youth clients were behaviour problems (46%), intrapersonal issues (39%), learning problems (39%), anxiety (36%), attentional problems (29%), and mood problems (27%). Fewer— but still an important number of— clients were reported to be presenting with problems associated with adjustment to life stressors (21%), self-harm behaviours (17%), attachment problems (12%), and parental separation (11%). Fewer than 10% of clients were reported to have autism (9.5%), sleep problems (9.5%), cognitive problems (9%), sexual abuse and/or trauma (7%), eating disorders (7%), physical abuse (6%), psychosis (4%), psychosexual problems (3%), substance use (2%), and management issues with health, injury, and illness (2%). Some clients received psychological services for a gifted assessment (2%), school readiness assessment (4%), or an adoption consultation (1.5%). Eleven percent of practitioners indicated that their client presented with "other" psychological problems, which included

reassessments, being bullied, parent's terminal illness, and difficult relationship with parents among others. The majority of clients were reported to not have any problems with substance use (92%).

Forty-seven percent of the child and youth clients had been diagnosed with a DSM-IV-TR disorder. Aside from the 26% of clients who did not have a DSM-IV-TR disorder, 22% of practitioners had not yet completed the evaluation and 1.5% did not know if their client had a DSM-IV-TR diagnosis. Three percent of practitioners indicated that they did not use the DSM-IV-TR classification system for diagnosing a client's psychological issues; however, one participant noted using the provincial coding system for special education designation. Among clients who were diagnosed with a DSM-IV-TR disorder, the most common disorders were mood and anxiety disorders (36%) and attention deficit hyperactivity disorder (32%). Practitioners indicated that some clients were also diagnosed with a developmental disorder (11%; including autism), conduct disorder (5%), learning disorder (5%), psychotic disorder (1%), or another type of disorder (17%; which included diagnoses of dissociative disorders, eating disorders, adjustment disorders, and other childhood disorders). Nearly all of the practitioners indicated that the child and youth clients were moderately or severely affected by their presenting problem (94%). Despite the severity of the psychological problems, 62% of practitioners noted that their client had greatly improved or improved since beginning treatment. Twenty-two percent of practitioners indicated that their client had shown no change since beginning psychological treatment.

Psychology practitioners reported that 14% of randomly selected child and youth clients had a chronic disease, which was quite lower than the frequency of chronic disease

in clients from Survey 2 (approximately 50% of clients). Among clients reported to have a chronic disease, the most common involved mental functions (26%), gross and fine motor functions (21%), gastrointestinal functions (21%), and "other" functions (26%; which included problems with being overweight, sleep, allergies, and back pain). Fewer clients were reported to have problems associated with neurological functions (10.5%), speech functions (10.5%), endocrinological functions (10.5%), respiratory functions (10.5%), and immunological functions (10.5%). Practitioners indicated that slightly more than one-third of child and youth clients were affected a little by their chronic disorder (37%), whereas 42% of clients were reported to be affected moderately by their chronic disorder. Twenty-one percent of clients were severely affected by the presence of their chronic disorder. Despite the presence of chronic disorders and psychological problems, practitioners indicated that 43% of clients (or their caregivers) had self-reported their health status as very good or excellent and 30% of clients had self-reported their health status as good. A minority of clients self-reported their health status as fair or poor (18%).

Group comparisons among practitioners

Similar to the analyses conducted for Survey 2, it was of interest to determine whether there were any differences in psychological services and client characteristics between types of practitioners (e.g., Masters and Doctorate practitioners and public and private practicing psychologists). We were interested in knowing whether these groups of practitioners differed on the following variables: client's age, client's gender, school grade, number of client sessions, total number of risk factors, total number of presenting problems, each risk factor, each presenting problem, the adjusted DSM-IV-TR diagnosis (i.e.,

only practitioners who evaluated their client were included), presence of a chronic disorder, and medication. The *p* value was set at 0.01 to adjust for multiple analyses.

ANOVAs were run on the continuous variables. There were no significant differences between Masters and Doctorate practitioners for client's age, school grade, number of client sessions (e.g., therapy, assessment, consultation, and additional sessions), total number of risk factors, and total number of presenting problems. Similarly, there were no significant differences between public and private practicing psychologists for the same variables. Chi-square tests were run on the categorical variables in question, notably client's gender, the risk factors, the presenting problems, the adjusted DSM-IV-TR diagnosis, the presence of a chronic disorder, and medication. Interestingly, the two groups of practitioners were each significantly different for the adjusted DSM-IV-TR diagnosis variable ("yes" or "no" response to whether the client had a DSM-IV-TR diagnosis). More Doctorate psychology practitioners had diagnosed their client with a DSM-IV-TR disorder (60%) than had Masters psychology practitioners (40%), $\chi^2 = 6.59$, $p = .01$ *Cramer's V* = .26. With an even more pronounced difference, more public practitioners had diagnosed their client with a DSM-IV-TR disorder (74%) than had private practitioners (26%), $\chi^2 = 7.16$, $p = .007$, *Cramer's V* = .27. There was also a significant difference between public and private practitioners for clients who presented with academic performance problems as a risk factor. More public practitioners (79%) had a client presenting with an academic performance problem than had private practitioners (21%), $\chi^2 = 8.17$, $p = .004$, *Cramer's V* = .24. There were no significant differences between types of practitioners for the client's

gender, risk factors (aside from academic performance problems), presenting problems, presence of a chronic disorder, and whether the client was taking medication.

Within client differences. Additionally, it was of interest to determine whether there were any differences in psychological characteristics between different groups of clients, particularly for gender, family structure, and attending a special program. The comparison variables were total number of risk factors, total number of presenting problems, each listed risk factor, each listed presenting problem, the adjusted DSM-IV-TR diagnosis, and medication. ANOVAs were run for group differences regarding the total number of risk factors and the total number of presenting problems. There were no significant differences between the client groups for total number of presenting problems. Likewise, there was not a significant difference between males and females for total number of risk factors. However, there were significant differences for total number of risk factors between clients with different family structures ($F(2,133) = 20.97$, $p < .001$) and clients attending a special program ($F(1,135) = 14.59$, $p < .001$). Tests of homogeneity of variance for these analyses raised concerns (i.e., Levene's test was significant) and therefore the results should be interpreted with caution. For variables with more than two groups (e.g., family structure), the Games-Howell post-hoc test was used to determine any differences between multiple groups. Children and youth from two parent homes (e.g., two married parents or two parents living common law; $M = 2.67$, $SD = 1.90$) had significantly fewer total risk factors than did children and youth from single parent homes ($M = 5.0$, $SD = 2.84$) and "other" family structures (e.g., living in joint custody, blended family, etc.; $M = 5.48$, $SD = 2.79$). Also, children and youth who attended a special program had significantly more risk factors

(*M* = 4.76, *SD* = 2.93) than did children and youth who did not attend a special program (*M* = 3.08, *SD* = 2.13).

Chi-square tests were again run on the categorical variables in question, notably for the risk factors, the presenting problems, the adjusted DSM-IV-TR diagnosis, and medication. When considering differences between male and female clients, there were no significant differences regarding DSM-IV-TR diagnosis, the majority of the risk factors, many of the presenting problems, attending a special program, and taking medication. However, there were significant differences between male and female clients for two of the risk factors and four of the presenting problems. Interestingly, more female clients (64%) presented with parental mental disorder as a risk factor than did male clients (36%), χ^2 = 7.67, *p* = .006, *Cramer's V* = .24, but more male clients (62%) presented with academic performance problems as a risk factor than did female clients (38%), χ^2 = 10.75, *p* = .001, *Cramer's V* = .28. There were significant differences between male and female clients presenting with anxiety disorders, behaviour problems, attention problems, and learning problems. Significantly more female clients (71%) presented with anxiety problems than did male clients (29%), χ^2 = 12.22, *p* <.001, *Cramer's V* = .30. There were significantly more male clients than female clients presenting with behaviour problems (62%; χ^2 = 8.41, *p* = .004, *Cramer's V* = .25), attention problems (70%; χ^2 = 10.46, *p* = .001, *Cramer's V* = .28), and learning problems (76%; χ^2 = 26.91, *p* < .001, *Cramer's V* = .45). As Cramer's V is an indication of how much a certain factor is accounting for the variance within another variable, gender appears to be an important component in accounting for anxiety problems and learning problems in particular.

The same categorical variables were compared for child and youth clients who attended a special program and child and youth clients who did not attend a special program. There were significant differences between the two groups of clients for DSM-IV-TR diagnosis, three risk factors, and one presenting problem. There were no significant differences for the remaining risk factors, the majority of the presenting problems, and taking medication. Significantly more child and youth clients who attended a special program (60%) than clients who did not attend a special program (40%) were diagnosed with a DSM-IV-TR disorder, $\chi^2 = 9.63$, $p = .002$, *Cramer's V* = .31. Similarly, compared to the other clients, significantly more clients who attended a special program presented with the following risk factors: aggression problems (71%; $\chi^2 = 11.63$, $p = .001$, *Cramer's V* = .29), academic performance problems (72%; $\chi^2 = 21.96$, $p < .001$, *Cramer's V* = .40), and school avoidance (79%; $\chi^2 = 9.55$, $p = .002$, *Cramer's V* = .26). Lastly, child and youth clients who attended a special program were significantly more likely to present with learning problems (72%) than those who did not attend a special program (28%), $\chi^2 = 13.83$, $p < .001$, *Cramer's V* = .32.

Challenges in client service provision

The final question in Survey 3 asked psychology practitioners to briefly describe the three factors that were most challenging in providing or ensuring the best possible service for the randomly selected client. Although some issues were unique to particular clients, many issues were recurring challenges for a large number of practitioners. The challenges were organized into seven themes, presented in descending order of frequency: family challenges (32% of all responses); lack of resources, funding, and services (26%); client

challenges (15.5%); lack of communication and collaboration with partners in care (10%); challenges in social services (5%); access issues (3%); and professional interferences (7%). Although it appears as though the responses for professional interferences were more numerous, they were deemed to have less importance in terms of the challenges to providing services to the client when compared to challenges in social services and access issues. See Figure 2 for representation of the themes. Participants described multiple types of challenges within each theme, outlined in Figure 3. The challenges described herein represent the experiences of the majority of psychology practitioners who participated in the survey; 14 participants indicated that there were no challenges in service provision or did not answer the question.

Practitioners mentioned five different family challenges that interfered with client service provision. Participants cited a lack of family involvement in client care as a challenge; parents or caregivers were too busy, they lacked motivation to provide follow-up care for their child, or they simply showed resistance in wanting to help their child overcome their mental health issues. Practitioners noted that parents and caregivers were also not being supportive of their child—blaming the child for the mental health problems—and wanted a quick and easy solution to the child's problem with as little involvement on the parents' part as possible. Practitioners mentioned that some parents would not recognize their role in the mental health treatment of their child. Another challenge was the client's negative family environment. Participants noted that family conflict, strained relationships between parent and child, neglect, parental marital instability, and lack of a stable residence impacted psychological services with the child or youth client. Practitioners

indicated that the parents' mental health issues (e.g., anxiety, depression, alcoholism) also impacted the psychological services provided to the client. A minority of practitioners noted that some parents were more concerned for theirs and their child's reputation than for the well-being of their child. In addition to these challenges, the parents' lack of skills or resources, or their behaviour (e.g., criminality, personality traits) exacerbated the client's mental health problems.

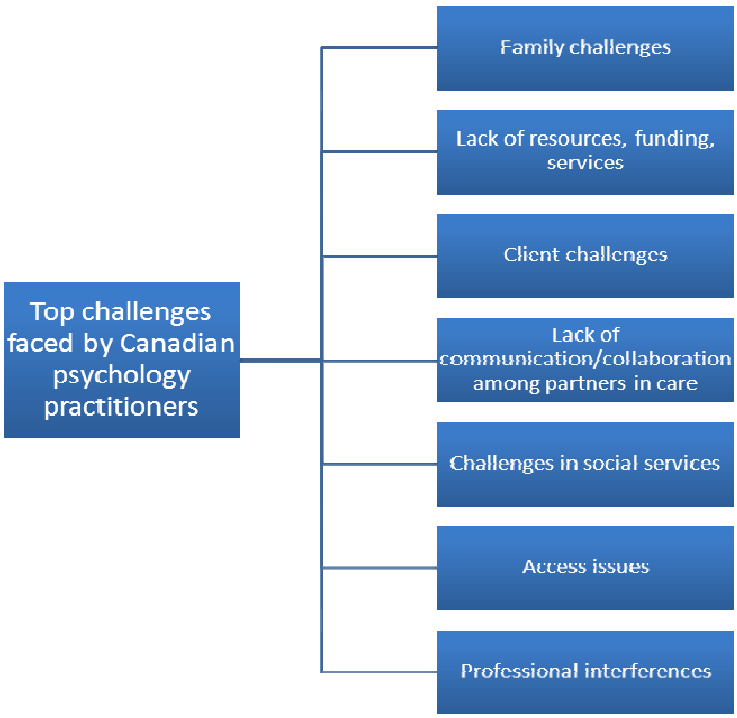

Figure 2. Survey 3: Canadian psychology practitioners' primary challenges in client service provision.

Many practitioners indicated that a lack of resources, funding, and services was a major challenge in providing the best possible service for the client in question. Funding to pay for services was not only a concern for parents and caregivers who could not afford psychological services, but there was also a lack of public funding to pay for necessary

services (e.g., to increase services available and reduce heavy caseloads, services in schools, and services for complex cases) and extended health care. The lack of funding contributed to a greater lack of services available. Participants noted that there were no supporting services available in the community, there was a lack of treatment and specialized services available, as well as a lack of support services in schools (e.g., no ESL support, no space for testing). In some cases, practitioners noted that clients were receiving inappropriate treatment or experiencing delays in receiving the appropriate treatment approach because of the lack of funding and services available. Practitioners were also noticing the effects within their practice; a minority of participants indicated experiencing a lack of resources available to them and their clients (e.g., to supplement therapy, to foster skills development, or having professional resources available in hospitals).

The child or youth client also presented with challenges of their own for psychology practitioners wanting to provide the best possible service. The client's demographic factors offered challenges to the practitioners, such as the young age of the client (i.e., the difficulty and implications of diagnosing a mental health problem in young clients), cultural factors, and language issues. The severity of the child or youth's mental health problem was also a concern for practitioners. Frequently, practitioners indicated that clients presented with concurrent and multiple problems or were presenting with very severe and complex problems. It was thus challenging for practitioners to know what to address first and how, given other system constraints. Some participants noted that clients were sometimes reluctant to help themselves and to engage in the treatment process. Practitioners noted that a lack of adherence to treatment and services, a lack of motivation to improve their

mental health, and a lack of awareness of the problem were not uncommon. Some clients also avoided school, and therefore did not attend in-school psychological services, or were hesitant or reluctant to discuss their problems with the psychology practitioner.

Family challenges	• Exacerbation of client's problems • Lack of family involvement in client care • Parental mental and physical health problems • Negative family environment • Family image concerns
Client challenges	• Client demographic factors • Severity of mental health problem • Client is uncooperative
Lack of resources, funding, services	• Lack of private funding • Lack of public funding • Lack of resources • Lack of services available • Lack of support and services in schools
Lack of communication/collaboration with partners in care	• Lack of collaboration with social services • Among other professionals involved in the case • Lack of information • lack of collaboration from the school • Difficulty harmonizing various treatment approaches • Lack of access to collaborative partners
Challenges in social services	• Lack of support for families • Inability to provide follow-up care • Lack of knowledge • Lack of adequate services
Access issues	• Geographic barriers • Program restrictions • Long wait lists and high demand • Scheduling conflicts
Professional interferences	• Unstable client care • No professional supervision • Providing fair client evaluation

Figure 3. Survey 3: Canadian psychology practitioners' top seven challenges with their respective sub-themes.

In addition to the previous challenges, psychology practitioners noted that it was difficult to provide the best possible service to child and youth clients because there was a lack of communication and collaboration with other partners in care. This was a particular issue with other health professionals, the school, and other social services involved in the case. Participants indicated that there was a lack of time to coordinate the schedules between professionals to collaborate on client care and to coordinate efforts with multiple care providers to create a support plan for the client. Within the schools, some practitioners found it challenging to collaborate with the teachers and the school psychologist. Some practitioners also noted that there was poor communication between the school and the parents. Collaborating with child protection services and other social services was a challenge, particularly when attempting to provide family interventions. Practitioners noted that it became difficult to harmonize treatment approaches of various therapists or other health professionals involved in the client care. In some cases the client was receiving duplicate services from a private practitioner. It was also a challenge for some practitioners to have access to collaborative partners because they did not have a direct connection with psychiatry or other mental health services to provide cooperative care or there were limitations with the provincial privacy acts to be able to collaborate with care partners. Lastly, some practitioners found that there was a lack of information available to them to collaborate, notably surrounding the availability of evidence-based teaching methods, access to court/legal documents, and a lack of information on the prior interventions that the client received.

Some practitioners also noted challenges from social services during treatment of the client. Some social services were not effective in providing support for families. Practitioners noted that there was a lack of treatment available to support the home environment, inadequate respite to avoid burnout, delays in receiving in-home support, and limited access to community parent support. Some social services were also ineffective in providing follow-up care for the child or youth client. Whether there was a lack of affordable community services to provide follow-up care, an inability of the social service to provide parents with follow-up care management, or service professionals involved in the case that are not following up with the client, the well-being of child and youth clients was negatively affected. Additionally, participants reported that there was a lack of knowledge in social services, particularly within group home staff and surrounding the understanding of risk and being able to provide instruction in academic and social settings. Practitioners noted that an important challenge within social services was a lack of adequate services. There was a lack of community awareness and organization to create specialized group services. For some clients, no treatment was provided within the service and they were not helped with their issues (e.g., family of origin was neglectful). One participant indicated that the social service agency involved in the client's care was adding pressure to resolve the issues in a manner that was not in the best interest of the client.

Access to services was another challenge hindering service provision to child and youth clients. For a minority of participants, geographic barriers impacted the delivery of psychological service; some clients lived very far from the psychology services available, whereas other clients simply lived outside of the catchment area of the treatment program.

Other program restrictions included a limited number of sessions and time allowed for the treatment process. Many practitioners also highlighted long wait lists and high demand for their psychological services; child and youth clients were not receiving services when they needed it.

Finally, a minority of participants indicated that certain professional issues interfered with optimal service delivery. One practitioner indicated that they did not have professional supervision. A minority of practitioners also reported that it was challenging to provide optimal psychological services for the randomly selected client because the child or youth was subjected to unstable client care, such as experiencing multiple transfers of providers, being transferred back and forth between hospital programs that offered different services, and frequent changes in service providers.

Phase 5: Survey 4

Survey Description and Development

The development of Survey 4 was also based on the feedback obtained from the focus groups (Halifax and Vancouver). Although many suggestions came out of the focus groups in question, it was decided that Survey 4 would focus on clients with concomitant chronic disorders and its effect on mental health. Again, Survey 2 questions were used as a base for which to adapt questions for a different client population. Many questions were reworded or restructured, and some new questions were added to Survey 4.

Before the survey questions were developed or reworked, information was gathered on prominent chronic disorders affecting Canadians and their effects on mental health. Academic journal articles, government and public institution PDF documents, and previous

Statistics Canada Canadian Community Health Surveys were consulted. Following this, the Project Manager brainstormed a large amount of questions pertaining generally to how a chronic disorder impacts an individual. Questions focused around these issues:

- Relationships, work, daily functioning, family, stress
- Comorbid disorders
- Medications
- Brief history of the CD
- Links to the mental health problems
- Treatment, consultation

A meeting was then held between the Project Manager, CPA's Chief Executive Officer Dr. Karen Cohen, and Dr. John Hunsley to discuss and further refine the brainstormed questions. During the meeting, several options were discussed for the direction and scope of the survey. Considering the large amount of chronic conditions in existence, it would have been futile to develop a survey that could include numerous chronic conditions and their various effects on mental health. To narrow the scope of the survey, it was decided that the fourth survey would focus on two chronic conditions only: cardiovascular disease (CVD) and diabetes. These conditions were selected because of the greater prevalence among Canadian health problems.

The majority of the client demographic and client service characteristics questions from Survey 2 and Survey 3 were re-used and adapted for Survey 4. Other questions specifically pertaining to each chronic condition were created especially for Survey 4, with a particular focus on the impacts and links to mental health problems, and practice trends in

dealing with a client's chronic condition (see Appendix H for Survey 4 questions). Three draft revisions to the survey questions were made to ensure adequacy and appropriateness of the questions and response options. Participants were invited to complete the survey based on one client who had either CVD or diabetes. Therefore, the online survey was organized into two smaller surveys, one with questions pertaining to CVD diagnosis and a similar survey with questions pertaining to a diabetes diagnosis.

Recruitment and Administration

Similar to the procedure done with the other surveys, recruitment messages were sent to all interested participants from the master list. Only a very small number of psychology practitioners renewed their interest for the last survey; therefore, we had to explore other recruitment options. The recruitment message was then sent to associates of CPA, such as the accreditation directors, Practice directorate members, CCPPP members, and three sections of CPA (health, clinical, and counselling). Despite the additional efforts, recruitment remained challenging. The Survey 4 recruitment message (see Appendix I) was written to broadly target any psychology practitioners who had clients diagnosed with CVD or diabetes, regardless of whether their services were specialized to that client population or not. Many of the practitioners who responded with interest only had a few clients that met the survey criteria and received services infrequently. Because of these challenges, it was not practical to use real-time sampling methodology (i.e., the methodology used for Survey 2). Therefore, participants were asked to report on the most recent client that met the criteria, seen within the past few weeks, rather than report on the randomly selected client seen the hour they received the email. Participants were given three opportunities to

complete the survey; they were invited on a randomly selected day once a week for three weeks.

Survey 4 Results

Ninety-two psychology practitioners completed Survey 4. Participants reported on a randomly selected adult client that had been diagnosed with either cardiovascular disease (CVD) or diabetes. These results are outlined as follows: practitioner demographics, client demographics, client chronic disease characteristics, client service characteristics, client psychosocial functioning, differences between groups of practitioners, and the primary challenges Canadian psychology practitioners faced in service provision with the selected client. Frequencies and percentages were calculated for all of the categorical variables; means and standard deviations were calculated for the corresponding numerical variables in the survey. Group differences were analyzed with one-way ANOVAs or chi-square tests depending on the variable in question.

Practitioner demographics

Participants were 45.97 years old on average (*SD* = 10.5) and ranged in age from 26 to 69 years old. Similar to results from the previous surveys, the majority of participants were female (75%). The province of residence for participants was consistent with the previous surveys as well. Thirty-three percent of psychologists indicated living in Quebec, the highest represented province again. Fewer participants represented the Western provinces (Alberta, British Columbia, Saskatchewan, and Manitoba; 25%). Ontario was well represented by practitioners with 26% of participants from that province. Only 14% of

participants represented the Eastern provinces: New Brunswick, Prince Edward Island, Nova Scotia, and Newfoundland and Labrador.

Practitioners holding Doctorate degrees (54%) were slightly more numerous than practitioners holding Masters degrees (43%), unlike the previous survey but similar to Survey 1 and Survey 2. More of these practitioners were holding degrees in clinical psychology (68%). Counselling psychology (15%) was the next most frequently held degree. Fewer participants were holding clinical neuropsychology degrees (5%), school psychology degrees (4%), and "other" degrees (5%; neuroscience, Educational psychology, a general psychology degree, or a degree with a combination of clinical and neuropsychology or rehabilitation psychology and clinical neuropsychology). Thirty-five percent of practitioners maintained a primarily private practice and 65% of practitioners worked primarily in public practice.

Practitioners indicated that only 36% (*SD* = 32.8, range = 1 to 100%) of their client population on average consisted of clients with either CVD or diabetes. Overall, 86% of practitioners reported providing psychological services to clients with CVD and 89% of practitioners reported providing psychological services to clients with diabetes. All practitioner demographics can be found in Table 21.

Client demographics

Of the 92 clients diagnosed with CVD or diabetes that were reported on in the survey, 45% were female and 55% were male. Clients were, on average, 48.2 years old (*SD* = 15.49) and ranged in age from 18 year to 91 years old. The clients' sexual orientation was primarily heterosexual (90%). Practitioners indicated that 3% of clients were gay or lesbian,

1% of clients were bisexual, and 5% of practitioners did not know the sexual orientation of their client. One-half of the clients reported on in the survey were married or living common law and 30% of clients were single. Fewer than 10% of clients were widowed (8%), separated (4%), divorced (7%), or the marital status was unknown (1%). Clients included in this survey were primarily living in a private residence (89%). Few clients were living in residential care (3%), a correctional setting (1%), or were homeless (1%). Five percent of clients had "other" living arrangements.

The majority of clients were White (87%). Within the 13% of clients who had other ethnic backgrounds, the primary ethnic identities were Aboriginal (3%), Black (3%), South Asian (2%), Japanese (1%), Korean (1%), or multi-ethnic (2%). More participants reported that their clients had at least completed some university or received a university or graduate school degree (38% of the clients) than the other levels of education. Twenty percent of clients reportedly achieved a college certificate or diploma or a trades certificate or diploma and 19% of clients had achieved a high school diploma. Twenty-four percent of adult clients had achieved less than a high diploma. An equal number of clients were employed full-time (30%) or were not employed (30%). Sixteen percent of clients were employed part-time and 20% of clients were on a disability pension. The employment status of 2% of clients was unknown to the practitioner. All client demographics are represented in Table 22.

Client chronic disease characteristics

More of the practitioners' clients had been diagnosed with diabetes (48%) than with CVD (36%). A small portion of clients were diagnosed with both conditions (16%). Among

clients who had been diagnosed with diabetes, 75% had Type 2 diabetes and 25% had Type 1 diabetes. Ninety percent of clients that had been diagnosed with CVD had acquired the condition throughout their life. Only 5% of clients diagnosed with CVD had the condition since birth. A small portion of clients had been diagnosed with their chronic condition within the last year (12%). More than one-half of clients had been diagnosed with their chronic condition within the last ten years; 35% of clients had been diagnosed 1 to 5 years ago and 32% of clients had been diagnosed 5 to 10 years ago. Twenty-two percent of clients had been living with their chronic condition for over 10 years. Practitioners indicated that in 46% of clients, the chronic condition had deteriorated since diagnosis. The condition remained unchanged since diagnosis for 23% of clients. Only one fifth of clients have seen their condition improve (17%) or greatly improve (3%), according to practitioners.

We asked practitioners to indicate whether their client sought services primarily to manage their CVD or diabetes. The majority of clients were not utilizing psychological services to manage their chronic condition (76%). We also asked practitioners whether the client's psychological problems preceded or followed the diagnosis of CVD or diabetes. Practitioners indicated that a nearly equal number of clients had psychological problems that preceded the diagnosis of CVD or diabetes (43%) compared to clients whose psychological problems followed the diagnosis of CVD or diabetes (42%). Fourteen percent of practitioners were unsure whether their clients' psychological problems preceded or followed the diagnosis of CVD or diabetes. Clients were experiencing stress from a variety of sources. Practitioners noted that 61% of clients had been experiencing family stress, the most frequently reported type of stress. A nearly equal proportion of clients were

experiencing work stress (45%) and social stress (42%). Fewer clients were also experiencing relationship stress (39%) and financial stress (35%).

In 77% of clients, CVD or diabetes was impacted by psychological factors, as reported by the psychology practitioners (illustrated in Figure 4). These factors—stress, poor coping mechanisms, mental health problems, life demands, and an inability to make lifestyle changes— were often compounded with each other to worsen the client's chronic condition. Many practitioners indicated their clients' stress levels created secondary effects such as sleep difficulties, increased blood pressure or hypertension, and strokes that worsened their CVD or diabetes. The effects of stress were also cyclical; where stress created negative physical side effects that impacted the chronic condition, which in turn increased stress. Some practitioners noted that their clients adopted poor coping mechanisms in an attempt to self-medicate against their mental health problems and chronic condition, such as smoking and alcohol use, which have direct implications on their physical health.

The clients' existing mental health problems were the most frequently cited culprits in worsening the client's chronic condition. Practitioners indicated that depression had a primary impact on physical health, reducing the client's motivation to maintain healthy habits or make healthy lifestyle changes (e.g., exercising regularly, eating healthier foods). Depression also contributed to the development of poor coping mechanisms in some clients, sometimes because of the clients' failure to accept the reality of their chronic condition. Anxiety had an important impact as well, with some practitioners reporting that their clients had difficulties concentrating, felt helpless, and were worried about their

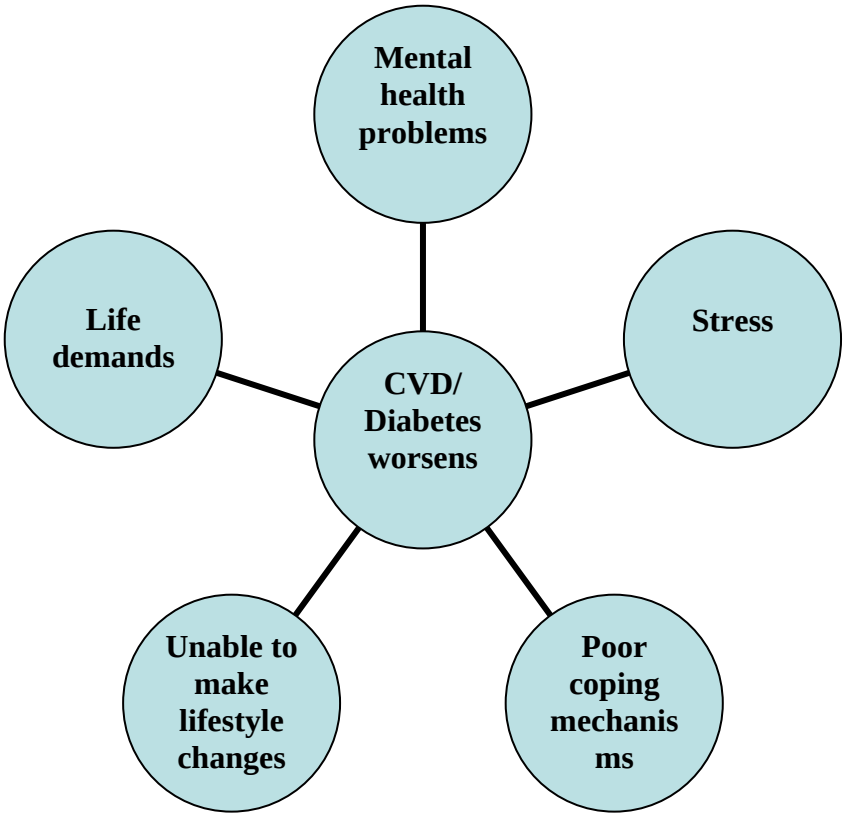

Figure 4. Survey 4: The psychological impacts on the clients' chronic disease

health. According to the practitioners, general self-esteem issues impacted the chronic condition. Clients with poor self-image were not participating in self-care and had adopted poor eating habits. Life demands such as work conflicts and relationship problems negatively impact the client's chronic condition and are often compounded by stress. All of these factors contribute significantly to the client's inability to make lifestyle changes. Practitioners indicated that because of the clients' mental health problems (primarily depression and anxiety, but also chronic pain in some cases), motivational deficits, low self-esteem, stress levels, personality issues, constant worry and fear over health, work

demands, and a lack of support from personal relationships, the appropriate lifestyle changes to improve physical health were not occurring.

Comorbid chronic conditions were present in nearly one-half of clients. For only 5% of clients, the comorbid chronic condition was not part of the presenting psychological problem, but the comorbid chronic condition was a part of the presenting problem for 41% of clients. Ten percent of practitioners were unsure whether their client had a comorbid chronic condition. The most frequently reported comorbid chronic condition involved neurological functions (26% of clients).The next most frequently reported comorbid chronic conditions involved endocrinological functions (17%), gross and fine motor functions (14%), respiratory functions (13%), and cardiological functions (11%). Fewer than 10% of clients were affected by each of the other comorbid chronic conditions (see Table 23). Clients were reported to be experiencing primarily moderate (55%) or severe (27%) restrictions in functioning due to their mental health problems or chronic condition(s). Practitioners indicated that only 15% of clients were affected a little by their mental health problems or chronic condition. The cause in the restriction in functioning was primarily due to the presence of both the mental health problems and the chronic condition (experienced by 54% of clients). Practitioners indicated the cause for the restriction in functioning in 29% of clients was due solely to the presenting psychological problems. The chronic condition was solely responsible for the restriction in functioning in 15% of clients.

We asked practitioners whether family members were involved in the psychological services provided to the selected client. Family members were involved in the services for only 20% of clients. Practitioners were also asked to evaluate the impact of the clients'

presenting psychological problems and CVD or diabetes on the clients' family. They noted that for 49% of clients, the family was moderately affected by the clients' presenting psychological problems and/or CVD or diabetes. The families of 28% of clients were severely affected. For only 12% of clients, the families were affected a little by the clients' presenting psychological problems and/or CVD or diabetes. The primary cause of the impact on family was a combined effect of the presenting psychological problem and the presence of CVD or diabetes (50% of clients). The presenting psychological problems were the cause of the impact on family for 35% of clients and the CVD or diabetes was the cause of the impact on family for 12% of clients.

Practitioners also reported on the impact that the clients' presenting psychological problems and CVD or diabetes had on the clients' ability to work. For 42% of clients, the presenting psychological problems and the presence of CVD or diabetes was severely impacting the clients' ability to work. The impact was moderate for 24% of clients and a little for 20% of clients. Similar to the impact on family, practitioners indicated that the cause of the impact on the clients' ability to work was due to the combined effect of the presenting psychological problem and the presence of CVD or diabetes (42% of clients). For 29% of clients, the cause was primarily due to the presenting psychological problem and for 16% of clients the cause was primarily due to the presence of CVD or diabetes.

We asked practitioners general questions about the services they provide to clients diagnosed with CVD or diabetes, which included questions about the focus of psychological treatment, the involvement of family in treatment, and collaboration with other health care providers. The management of CVD or diabetes was not a primary focus of treatment in

psychological services for approximately one-half of practitioners. Thirty-nine percent of practitioners indicated that the management of the client's chronic condition was only occasionally a focus of treatment, and 13% of practitioners indicated that it was rarely a focus of treatment. The management of CVD or diabetes was a focus of treatment for 29% of practitioners one-half of the time and it was always or most often a focus of treatment for 18% of practitioners. For more than one-half of practitioners, the distress associated with having CVD or diabetes was always or most often (34%) or one-half the time (28%) a focus of treatment with clients presenting with those chronic conditions. The distress associated with having CVD or diabetes was a focus of treatment occasionally for 28% of practitioners and rarely for another 10%. In general, practitioners indicated that family members or significant others were rarely (38%) or only occasionally (34%) involved in psychological services. Fourteen percent of practitioners indicated that family was involved in psychological services always or most often. The same percentage of practitioners noted that family was involved in psychological services one-half of the time. Just over one-half of practitioners indicated collaborating with the client's primary care provider once or twice over the course of psychological treatment (55%). Twenty-eight percent of practitioners collaborated regularly with the client's primary care provider and 16% of practitioners never collaborated with the client's primary care provider. Sixty-one percent of practitioners did however collaborate with other health care providers in general. See Table 23 for all data on the client's chronic disease characteristics.

Client service characteristics

Similarly to the previous surveys, practitioners were asked to specify the types of services they provided to clients diagnosed with CVD or diabetes or any other services that the client may be receiving in conjunction with psychological services. The data for the client service characteristics are outlined in Table 24. Practitioners were asked to report the total number of sessions that they anticipated providing to the selected client (including past, current, and future sessions). The average number of sessions that practitioners anticipated providing was approximately 34 sessions (*SD* = 43.04). The median number of sessions was 20 and the number of total sessions ranged from 0 to 200 sessions. Practitioners indicated providing a range of services in the selected client session. They were most frequently providing treatment (76%) to their clients. Consultations (23%) and assessments (37%) occurred less frequently. Similar to that of Survey 3, participants were asked to describe, in an open-ended format, the types of assessment, treatment, and/or consultation that they provided to the client; see Figure 5 for a summary of the services provided.

The participating practitioners listed six different types of assessments that they provided to their clients during the selected session: a general mental health assessment, a neuropsychological assessment, a clinical interview and/or intake assessment, an assessment specific to mood and/or anxiety problems, an assessment specific to chronic disease, and various other types of assessments. Although not many practitioners were conducting assessments during the client session, the most frequently reported assessment was for general mental health (25%). Slightly fewer practitioners had provided a

neurological assessment (19%). A similar proportion of practitioners were conducting intake assessments with their client (17%), which was typically a clinical interview with the client to discuss the family of origin, their current challenges, and the impact of the chronic condition.

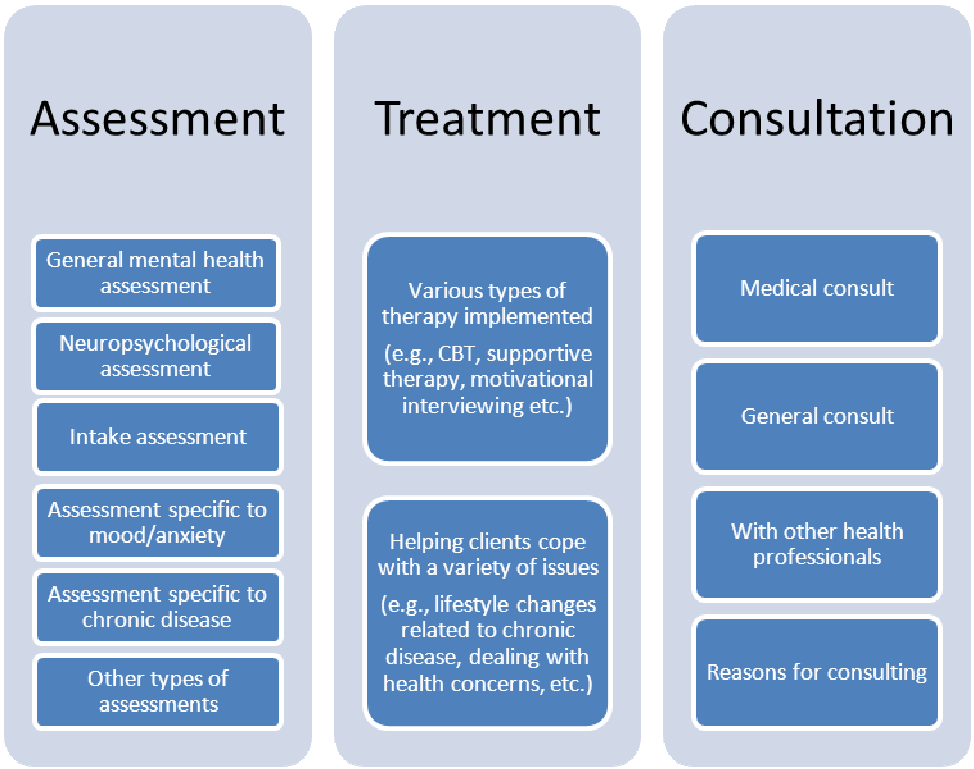

Figure 5. Survey 4: Services provided to clients diagnosed with CVD or diabetes

Fourteen percent of practitioners indicated providing assessments specific to mood and anxiety problems. A minority of practitioners also noted using assessments specifically for chronic disease. Nineteen percent of practitioners used a variety of other assessments which included risk assessment, adaptive living, psychiatric, work-related injury, psychosocial needs, as well as for the purposes of collecting data and reviewing medical records.

Treatment approaches for clients with CVD or diabetes were highly variable. Similar to the previous survey, the most frequently reported approach was cognitive behavioural therapy (CBT; employed during 36% of sessions). A minority of participants provided only CBT to their clients. Many more participants used CBT in conjunction with other types of therapy, primarily supportive therapy, motivational interviewing, and non-specified psychotherapy. Practitioners also utilized a multitude of other therapeutic approaches with their clients, such as grief counselling, dialectical behaviour therapy, mindfulness, humanist/existential, interpersonal, client-centered, relaxation, and emotion-focussed therapy among others. Treatment primarily occurred in an individual setting, but some clients benefitted from group therapy. Practitioners indicated that they provided treatment for a variety of problems, including but not limited to dealing with lifestyle changes associated with having a chronic disease, dealing with health concerns, helping clients express their emotions, pain management, as well as several different mental health problems (with depression being the most commonly reported problem).

Similar to the previous survey, fewer practitioners provided consultations during the randomly selected client session. Among those that did provide consultation, practitioners indicated doing a medical consult or a general consult regarding mental acuity, functionality, medication review, or a rehabilitation review. Some practitioners also indicated that they consulted with other health care professionals, such as with members of the interdisciplinary health team for a physiological assessment. The reasons for consulting revolved around symptom presentation, psychological support, and clarifying a “do not resuscitate” request.

Psychology practitioners responded to an additional question about consultations with other health professionals. The majority of practitioners did consult with other health professionals regarding the care of the selected client, and they were primarily consulting with the family physician (for 35% of clients), a medical specialist (for 26% of clients), and a dietician (for 23% of clients). The next most frequently consulted health professionals were a physiotherapist (13%), a nurse (13%), an occupational therapist (12%), or a psychiatrist (11%). The least frequently consulted health professionals were another psychologist (4%), a social worker (3%), a speech language pathologist (2%), and a recreational therapist (2%). Approximately 26% of practitioners did not consult with other health professionals.

Participants were also asked to report on the client's medication use. Approximately one-half of the clients were taking medications (49%); 3% of practitioners were unsure whether their client was taking any medication. Among the clients who were taking medications, the most common medications were antidepressants (45%) and anxiolytics (14%). Few clients were taking mood stabilizers (3%), hypnotics (3%), antipsychotics (1%) or "other" types of medication (2%). Among the psychology practitioners who indicated that their client was taking medication, 60% noted that it was primarily prescribed by a family physician. Approximately one-third of clients taking medications had it prescribed by a psychiatrist (36%). Four percent of clients had their medication prescribed by another medical specialist.

Approximately one-half of practitioners indicated that their client was also receiving another health service for the same presenting problem (55%). Clients received other health services from a wide range of professionals, including general practitioners (37% of

clients receiving other health services), medical specialists (25%), psychiatrists (18%), and nurse practitioners or other types of nurses (18%). Fewer than 10% of clients were receiving services from each of the following professionals: physiotherapist (9%), other psychologists (8%), social worker (6%), occupational therapists (3%), counsellors (3%), speech language pathologist (2%), social service agencies (1%), or "others" (2%).

Psychologist participants indicated that the client was referred to them primarily from a few select sources. More of the clients were referred by their physician (30%). Slightly fewer clients were referred by another health care professional (18%) or the client referred themselves (14%). The fewest number of clients were referred by their insurance system (10%), psychiatrist (5%), social services (4%), another psychologist (3%), the school system (3%), another client (3%), a professional referral service (3%), a community service (2%), a family member (1%), or the legal system (1%). Just less than one-half of practitioners also indicated making recommendations for clients to be referred to other services, including for other health (23%), medication evaluation (15%), other mental health treatment (12%), or support or self-help (12%). A minority of clients received referrals for social services (5%), nutrition (3%), substance abuse treatment (2%), or psychological assessment (1%). No referrals were made for child and family services.

More than one-half of psychological services were held in a public health care organization (56%) compared to 39% of psychological services that were held in a private setting—30% of sessions occurred in individual practice and 9% of sessions occurred in group practice. A minority of psychological services were held in other settings (4%), including community programs or in schools.

Client psychosocial functioning

Participants reported on their client's psychosocial functioning, such as the client's risk factors, presenting problems, DSM-IV-TR diagnoses, daily functioning, status of change with the problem, health status appraisal, and substance use (see Table 25). The most commonly reported risk factors among the randomly selected clients were other mental health problems (38%), exposure to traumatic events (31%), parental mental disorder (26%), marital problems (26%), and physical disability (20%). The following risk factors were reported in less than one fifth of clients: physical and/or sexual abuse (16%), bereavement (13%), and failure to graduate high school (13%). A minority of clients were reported to be at risk for mental health issues because of mobility or frequent moves (8%), removal from the family (4%), obesity (3%), and various other risk factors (18%; which included adoption, issues with alcohol, bullying, dependent personality features, and unhealthy family dynamics among others). Fourteen percent of psychology practitioners indicated their client did not have any risk factors and 2% were unsure of their client's risk factors. Interestingly, 30% of clients presented with one risk factor. As shown in Table 25, more than one-half of clients (55%) had more than two risk factors. On average, participants indicated that clients had approximately 2 risk factors (*SD* = 1.75).

Participants indicated that their clients presented with a variety of psychological issues. On average, clients were presenting with 3.5 psychological problems (*SD* = 2.11). Interestingly, 28% of clients had 5 or more presenting problems and just more than one-half of clients presented with two to four psychological problems (54%). Only 17% of clients presented with one psychological problem. The majority of the presenting problems

affecting clients with CVD or diabetes were mood problems (50%), adjustment to life stressors (45%), managing health, injury, and illness (43%), anxiety problems (42%), intrapersonal issues (37%), and interpersonal issues (36%). Fewer clients were reported to be presenting with sleep problems (17%), vocational issues (13%), and cognitive functioning problems of adulthood (12%). Fewer than 10% of clients were reported to have personality disorders (9%), sexual abuse and/or trauma (8%), substance use (8%), psychosexual problems of childhood (6%), eating disorders (6%), somatoform disorder (5%), learning problems (5%), sexual disorders (1%), and "other" problems (10%; which included obesity, gambling, and social isolation among others). When asked if their client had a substance use problem or disorder, the majority of practitioners reported that their clients did not have any problems with substance use (77%). One-quarter of clients were reported to have suicidal thoughts, ideations, or tendencies.

More than any of the previous surveys, 61% of clients had been diagnosed with a DSM-IV-TR disorder. Aside from the 26% of clients who did not have a DSM-IV-TR disorder, 4% of practitioners had not yet completed the evaluation and 3% did not know if their client had a DSM-IV-TR diagnosis. Five percent of practitioners indicated that they did not use the DSM-IV-TR classification system for diagnosing a client's psychological issues. Among clients who were diagnosed with a DSM-IV-TR disorder, the most common disorders were mood and anxiety disorders (39%). Practitioners indicated that some clients were also diagnosed with a substance use disorder (4%) or an adjustment disorder (3%). Eleven percent of clients had been diagnosed with another type of disorder, which included diagnoses of childhood disorders, cognitive disorders, eating disorders, personality disorders, and disorders that fall

into the “other” category in the DSM-IV-TR. Nearly all of the practitioners indicated that their client was moderately or severely affected by their presenting problem (90%). Despite the severity of the psychological problems, 78% of practitioners noted that their client had greatly improved or improved since beginning treatment. Likely because of the presence of chronic disorders and psychological problems, practitioners indicated that 56% of clients had self-reported their health status as fair or poor. Twenty-five percent of clients had self-reported their health status as good. A minority of clients self-reported their health status as very good or excellent (11%).

Group comparisons among practitioners

Similar to the analyses conducted for Survey 3, it was of interest to determine whether there were any differences in psychological services and client characteristics between types of practitioners (e.g., Masters and Doctorate practitioners and public and private practicing psychologists). We were interested in knowing whether these groups of practitioners differed on the following variables: client diagnosis, number of client sessions, total number of risk factors, total number of presenting problems, the four most frequently cited presenting problems (i.e., mood problems, anxiety problems, managing health, injury, and illness, and adjustment to life stressors), the adjusted DSM-IV-TR diagnosis (i.e., only practitioners who evaluated their client were included), and the presence of a comorbid chronic disorder. The *p* value was set at 0.01 to adjust for multiple analyses.

ANOVAs were run on the continuous variables and chi-square tests were run on the categorical variables. There were no significant differences between Masters and Doctorate practitioners for all of the variables analyzed, except for the presenting problem “managing

health, injury, and illness." More Doctorate practitioners had clients presenting with this psychological problem (75%) than Masters practitioners (25%), $\chi^2 = 11.03$, $p = .001$ *Cramer's* $V = .35$. There were no significant differences between public and private practitioners for any of the variables analyzed. It is possible that a sample size of $N = 92$ was not large enough to capture any differences between types of practitioners.

Within client differences. Additionally, it was of interest to determine whether there were any differences in psychological characteristics between different groups of clients, particularly for gender and client diagnosis (i.e., presence of CVD or diabetes). The comparison variables were total number of risk factors, total number of presenting problems, the four most frequently cited presenting problems (i.e., mood problems, anxiety problems, managing health, injury, and illness, and adjustment to life stressors), the adjusted DSM-IV-TR diagnosis (i.e., only practitioners who evaluated their client were included), the presence of a comorbid chronic disorder, suicidal thoughts, taking medication, the adjusted relationship between the presenting problem and the chronic disorder (i.e., whether the psychological problems preceded or followed the diagnosis of CVD or diabetes), and the five types of stress (e.g., work, family, financial, relationship, and social). ANOVAs were run on the continuous variables and chi-square tests were run on the categorical variables. There were no significant differences between clients diagnosed with CVD or diabetes. Likewise, there were no significant differences between male and female clients. Again, it is possible that the sample size was too small to capture any differences between client groups.

Challenges in client service provision

Similar to Survey 3, we asked psychology practitioners to briefly describe the three factors that were most challenging in providing or ensuring the best possible service for the selected client. The challenges were organized into six themes (see Figure 6), presented in descending order of frequency: lack of services and/or access (30% of responses given); client challenges (26%); lack of communication and collaboration with partners in care (16%); lack of resources and/or funding (13%); lack of support (12%); and family challenges (2%). See Figure 6 for a representation of the themes. Participants described multiple types of challenges within each theme, outlined in Figure 7. The challenges described herein represent the experiences of the majority of psychology practitioners who participated in the survey; 17% of participants indicated that there were no challenges in service provision or were unable to answer the question (e.g., first session with client).

The most frequently reported challenge to psychological services was the lack of available services and/or problems with access to services. According to practitioners, this was particularly an issue regarding specialized services. It was indicated that specialized services were needed for exercise and diet, aboriginal populations, body image concerns, diabetes and obesity, clients diagnosed with personality disorders, for clients needing bariatric medicine or a specialist in that area, and to help clients manage both physical and psychological chronic conditions. Practitioners noted that more services offering group therapy, outpatient services that can follow up with the client, and mental health services in the workplace were needed. The availability of needed services was also a concern. Practitioners reported that there was a lack of health professionals in the community to

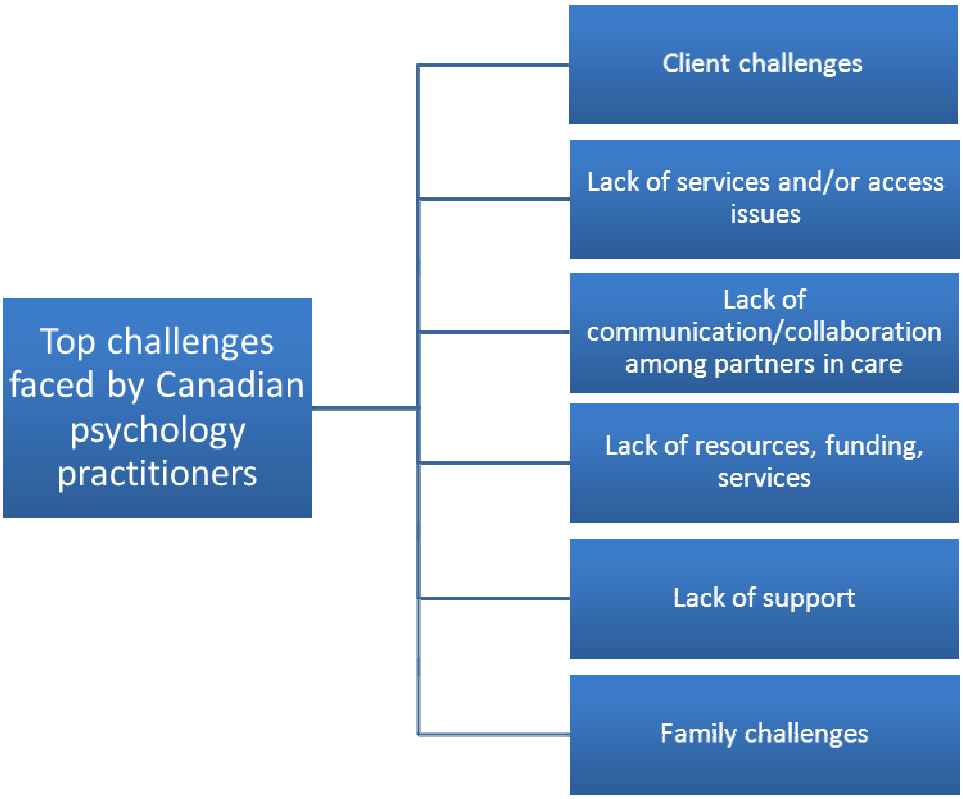

Figure 6. Survey 4: Canadian psychology practitioners' primary challenges in client service provision.

help manage the client's problems. Specifically, practitioners mentioned a shortage of family physicians, psychiatrists, and nurse practitioners. There was also a lack of space for clients in particular medical units, such as in geriatrics and eating disorders. Wait lists and scheduling demands posed challenges for practitioners. It was not only the practitioners' own heavy workloads (e.g., non-clinical demands, high caseload, limited clinical time) that negatively impacted services, but the wait lists for and availability of other healthcare providers also impacted services. Practitioners noted that there was a lack of support services available as well, for partners, long-term care services, and housing services.

Practitioners mentioned a few other challenges regarding the lack of services, such as a lack of flexibility within the healthcare system, delays in receiving needed services, an inability to make referrals to others within the public healthcare system, and the restriction of services to clients who only meet specific criteria (thus excluding other clients who still need the services).

Client challenges	• **Severity of mental health problems** • **Ambivalence to treatment** • **Physical health complications interfere with treatment** • **Personality and/or demographic issues** • **Geographical distance and transportation difficulties** • **Other challenges**
Lack of services and/or access issues	• Lack of specialized services • Availability of needed services • Lack of support services • Wait lists and scheduling demands • Other services challenges
Lack of communication/collaboration with partners in care	• Among other professionals involved in the case • Inability to synchronize information given to clients • Lack of communication among partners in care
Lack of resources, funding, services	• Lack of funding for services • Lack of funding available to the client • Funding limitations • Lack of resources
Lack of support	• From close relationships • From the community • From healthcare providers or services
Family challenges	• Family is uncooperative • Family is dysfunctional

Figure 7. Survey 4: Canadian psychology practitioners' six challenges with their respective sub-themes.

Psychology practitioners identified six different client challenges that impacted psychological services with the selected client. These challenges were the severity of the mental health problems, ambivalence to treatment, physical health complications that were interfering with treatment, personality and/or demographic issues, geographical distance and transportation difficulties, and other challenges. Practitioners noted that the severity of the client's mental health problems made it difficult to provide the best possible service to the client, particularly regarding the comorbidity and chronicity of the client's mental health problems. For some clients, their mental health problems had worsened over time and the cognitive and psychological impairments interfered with treatment. One practitioner noted that their client's mental health problems were diagnosed much later than the original appearance of the problem. The client's ambivalence to treatment was an important concern for some practitioners who participated in this survey. They noted that clients were generally not motivated to get better, irregularly attended treatment, did not take their medication, and were unwilling to engage with other health care providers. One practitioner reported that the client did not acknowledge their own mental health problems and refused the appropriate treatment.

The client's physical health complications also interfered with treatment. Practitioners noted that it was difficult at times to schedule therapy sessions around the client's other medical treatments and counselling sessions were interrupted due to the client's hospitalization for surgery. The client's physical health issues took precedent over the psychological problems, which contributed to limited communication with the client and the client's inability to attend educational services. Some practitioners dealt with these

issues by having treatment sessions over the phone. Practitioners also noted that the clients' personality or demographics impacted the provision of psychological services. Services and treatment were impacted by the client's passive personality style, language issues, rigid and concrete religious thinking, and catastrophization of the condition. Several practitioners noted that services were impacted by the clients' geographical distance from the treatment centre or clinic, or that the client could not get transportation to attend the services. Various other challenges also impacted psychological services with the selected client. Some clients were transitioning from pediatric care to adult care and would no longer be continuing services. Other clients had difficulty managing self-care because of an irregular work or travel schedule. Treatment was not working effectively for some clients (e.g., stress reduction techniques) and other clients could not find employment because of relational conflicts.

Practitioners also noted that a lack of communication and collaboration with partners in care impacted the services they provided to the selected client. There was a particular lack of collaboration with psychiatrists, physicians, the insurer, and between private and public practitioners. Some practitioners indicated that it was difficult engaging or liaising with other care providers regarding the treatment plan for the selected client. They indicated that there was a lack of integrated care and consistency among the primary care providers. One practitioner reported that there was a lack of "buy-in" regarding psychology's role in treatment. Not only were there problems regarding collaboration with other healthcare providers, but there were also communication challenges among the partners in care, particularly with medical specialists or professionals involved with the

client, medical resources, or the medical clinic. One practitioner noted that there were communication difficulties with the client's family. Additionally, there was a general inability to synchronize the information given to the client. Practitioners noted that clients were given conflicting medical information from different medical specialists. Also of concern was that too many doctors were prescribing medications to the client without properly reviewing the client's medical records and current medications.

A lack of resources and/or funding for services was another challenge brought forth by the practitioners in this survey. Practitioners indicated there was a lack of funding for services, particularly for follow-up or continued care, employment counselling, psychotherapy, and nutritionists. Affordability of services was also a concern as there was a lack of funding available to the client, not only to support the care needed, but also to pay for medications. The need for multiple services (for physical and mental health) was increasing financial strain on the client's family, as indicated by the practitioners. Additionally, practitioners noted that there were funding limitations for the psychological services. Several practitioners noted that the limited number of sessions available to the client was a challenge in providing the best possible service; the inadequate number of sessions was due to limited insurance coverage and set limits within the public healthcare system. There was also a lack of community and educational resources available to the client.

Practitioners reported a fifth challenge in service provision for the selected client: lack of support from close relationships, from the community, and from healthcare providers. Several practitioners indicated that clients were not receiving support from their

family to assist them in getting better. There was a lack of support from the community, specifically regarding a lack of referral sources available to support the client after assessment, a lack of employer support for the needed accommodations, a lack of long-term support to manage both physical and mental chronic conditions, and a lack of support from the insurance company.

Lastly, practitioners reported two family challenges that challenged them in providing the best possible service for the selected client. For some clients, the family was uncooperative; typically it was the partner or spouse that did not want to participate in counselling or provide adequate information about the psychological impacts of the client's disease. For other clients, the family dynamics were dysfunctional with long standing family patterns that were resistant to change.

Comparison of results with other data sources

Part of the project's goals included examining the data derived from all surveys in comparison to data obtained from other sources, such as public institutions and published journal articles, that have surveyed similar constructs. The aim of this comparison was to help determine the convergent validity of the aggregate demographic and clinical data of the project's surveys. Information on the demographics and practice characteristics of psychology practitioners was compared to similar information available from other sources, namely peer-reviewed research. A search for published journal articles was done through PsychInfo and PsycNET[10], using combinations of the following search terms: demographics, psychologist, clinical, and mental health. Unfortunately, the demographic and clinical

[10] PsychInfo and PsycNET are part of the electronic databases of the American Psychological Association which publishes the most authoritative and comprehensive resources in the behavioural sciences.

characteristics data of child and youth clients (Survey 3) and clients with CVD or diabetes (Survey 4) could not be compared with data from other sources because we could not find any comparable data at this time that reported the clinical characteristics of psychology practitioners' clients. Much of the available information on mental health problems describes these in a general population. We felt it would not be appropriate to compare the prevalence of mental health problems in a sample of clients who had specifically sought psychological services (albeit without knowing whether this sample was representative of all clients who seek psychological services) with the mental health prevalence rates of representative samples of the general population. Obviously, there will be more people with mental health problems and disorders presenting to a sample of psychologists than there will be among the general population. However, we were able to compare some demographic and clinical characteristics of our general client sample (Survey 2) with similar data collected from the pilot project (the precursor to the current project) and from the American Psychological Association's (APA) PracticeNet[11] (an electronic network that collects information about professional psychology from practicing psychologists). Much of the relevant information found is summarized here and compared against the findings of this project.

Practitioner data

Data on the demographic and practice characteristics of psychology practitioners have been collected since the 1960s. Unfortunately, not every study has collected the same type of data on psychology practitioners, but there have been some similarities in data

[11] For more information on PracticeNet, please visit the following link: http://apapracticenet.net/introduction.asp

collection across the studies (see Table 26 and Table 27). For simplification purposes, the comparison of practitioner data has been separated into two tables; Table 26 displays the data from studies conducted in the United States and Table 27 displays the data from studies conducted in Canada. Six of the American studies (Garfield & Kurtz, 1976; Morrow-Bradley & Elliott, 1986; Norcross et al., 2005; Prochaska & Norcross, 1983; Rachelson & Clance, 1980) surveyed psychology practitioners who were members of a specific division of the American Psychological Association (e.g., Clinical psychology, Psychotherapy). The seventh study, APA's PracticeNet (Bufka et al., 2005), was open to all members of APA regardless of membership with a specific division. The comparative Canadian data included a study by Hunsley and Lefebvre (1990) who sampled members from the Canadian Register of Health Service Providers in Psychology (CRHSPP), by the Association of State and Provincial Psychology Boards (ASPPB) which collected data on registered psychology practitioners in the United States and Canada in 2008-2009 (J. Hunsley, personal communication, November 10, 2009), as well as a study by the Canadian Psychological Association's Electronic Practice Network pilot project which collected similar information as the present project.

The mean age of psychology practitioners across all of the studies, when it was reported, was relatively similar, ranging from 43.1 years to 53.3 years. Although there was very little representation from female practitioners in most of the American studies in the comparison samples (a relatively accurate reflection of the actual demographics of U.S. practitioners at the time of each survey), the proportion of female psychology practitioners increased over time from 16% in 1976 to 55% in 2003. The data from Canadian studies

showed a similar trend, increasing from 21.6% in 1990 to 74.2% in the present study. It is possible, however, that the 74% representation of female psychology practitioners in this project may overestimate the number of female registered psychologists. There was a large difference across studies for degree attainment. Nearly all of the practitioners from the studies conducted in the United States had doctoral degrees (86-99% of participants), unlike practitioners from this project and other Canadian studies where between 59% and 81% of participating practitioners had doctoral degrees. This difference is a reflection of the differences in registration requirements between the U.S. and Canada in that the doctoral degree is required for licensure for psychologists in almost all U.S. jurisdictions which is not the case in Canada[12]. Few studies asked practitioners to specify the area of psychology for which they attained their degree (Bufka et al., 2005; Cohen et al., 2008; Morrow-Bradley & Elliott, 1986; Norcross et al., 2005). Except for one study (Norcross et al., 2005) where the proportion of practitioners with degrees in clinical psychology and counseling psychology was different than the rest, there was a similar proportion of practitioners across studies who had received their degree in clinical psychology (61-72%) and counseling psychology (11-18%). The pilot project (Cohen et al., 2008) reported a much lower prevalence of practitioners with degrees in clinical psychology only (47.5%).

Some of the studies asked practitioners to report on the number of years they had been in practice which yielded some variability across studies. Rachelson and Clance (1980), Cohen et al. (2008), and the data from ASPPB (J. Hunsley, personal communication, November 10, 2009) reported a similar proportion of practitioners who had been practicing

[12] http://www.cpa.ca/education/accreditation/PTlicensingrequirements/

for less than 10 years as we did, approximately 53-60%. That proportion was much smaller in other studies that assessed this practice characteristic (Garfield & Kurtz, 1976; Prochaska & Norcross, 1983). Some of the studies from the United States reported much higher proportions of practitioners in private practice (51% and 61%) than practitioners in this project and other Canadian studies (25-33%). Practitioner data was relatively similar, however, in terms of the time spent in particular professional activities. In each survey, including this project, the largest proportion of practitioner's professional time was spent providing an intervention or treatment (e.g., individual psychotherapy). There were some differences regarding professional time spent doing assessment, teaching, and research, where practitioners from studies based in Canada spent more time doing assessments than practitioners from studies in the United States.

General client data

As mentioned previously, there is little data on the demographics and clinical characteristics of psychology practitioners' clients. We felt it would only be appropriate to compare the client data of Survey 2 with the precursor and inspiration for the present project, Cohen et al.'s (2008) pilot project and APA's PracticeNet (Bufka et al., 2005). Although we can make general comparisons across the data, we cannot draw specific conclusions at this time because of a lack of data and differences in sample sizes. The pilot project (Cohen et al., 2008) was only able to collect client data from 58 practitioners and the data reported from APA's PracticeNet is an aggregate of the results from all surveys that they conducted between 2001 and 2003. The client's demographics (i.e., age, gender, ethnicity, and marital status) and psychosocial functioning characteristics (e.g., certain

mental health problems, diagnosis, referral source, and medication) are displayed in Table 28.

In large part, the client demographics were similar across studies, particularly for the client's age (between 32 and 38 years old), gender (a greater proportion of female clients sampled), and ethnicity (primarily White). The proportion of clients who were married was similar across studies (approximately one quarter of clients), but there was a higher proportion of clients in APA's PracticeNet who had never been married or who had been divorced. Many more differences between clients were seen for the client's psychosocial functioning characteristics. The proportion of clients with mood problems was similar across studies. However, clients seen by practitioners who participated in APA's PracticeNet had lower rates of anxiety and adjustment problems and higher rates of substance use and personality problems compared to clients of practitioners in the present project and the pilot project[13]. Additionally, when considering whether the client received an actual diagnosis according to the Diagnostic and Statistics Manual-IV-TR (APA, 1994), the rates of diagnosis were much higher in clients of practitioners who participated in APA's PracticeNet (86-90%) compared to clients in this project (51-62%) and the pilot project (67%). This finding may be related to the fact that, because the doctoral degree is the prevailing requirement for licensure in the U.S., more of the U.S. samples will have doctoral, rather than masters, degrees when compared to Canadian samples. In the current project, we observed that doctoral prepared psychologists were significantly more likely to make DSM diagnoses than masters prepared psychologists.

[13] Exception: Clients of practitioners from the pilot project had the highest rate of personality problems. All other comparison statements hold true.

The proportion of clients who were referred by the self or other professionals was relatively similar across studies. There were slightly fewer self-referrals in the pilot project and slightly fewer referrals from other professionals in the present project compared to the other studies. The proportion of clients who were taking medications was similar in the present project and the pilot project, but slightly higher in APA's PracticeNet. The health professional who had prescribed the medication to clients was different across studies; in APA's PracticeNet and the pilot project, more psychiatrists than physicians prescribed medications to clients whereas the opposite was true in the present project.

Comments on convergent validity

Relevant information about psychology practitioners and about demographic and mental health characteristics of clients was collected from peer-reviewed articles and reports, and compared with the findings of this project. This comparison was accomplished with the goal of determining whether the findings from this project are consistent with data from other sources. Comparisons across studies of this nature are challenging because they are conducted at different points in time, sample different individuals, and ask different questions. However, several points of convergence in data were evident. Although some of the practice and demographic characteristics of our sample of psychologists were comparable to other data sources, it was clear that demographic and practice trends have shifted over the course of the past 50 years. Data was convergent on the practitioner's average age, area of specialization (i.e., clinical psychology predominantly), and distribution of professional time (i.e., primarily doing intervention/treatment). Other practitioner data changed over time, particularly the gender of psychology practitioners (i.e., more women

are currently represented in the profession than in the past), years of experience in practice (i.e., a greater proportion of practitioners in early career are participating in studies), and numbers in private practice (i.e., more psychologists appear to be practicing privately now than in the past).

Although clients were similar across studies in terms of demographics, there were some notable differences regarding psychosocial functioning. Prevalence rates of mood and anxiety disorders among clients were similar in this project with the pilot project, but different from data of American clients. Likewise, the proportion of clients receiving medication and by whom it was prescribed was different between Canadian and American clients. As mentioned previously, these comparisons are not specifically conclusive, but we do have a greater understanding of the types of clients that access psychological services—and they appear to be similar in Canada and the United States—and the mental health problems they bring to the practitioner—which appear to be different in Canada and the United States. Data on child and youth clients, as well as clients of psychological services that have been diagnosed with CVD or diabetes, was not comparable to other sources. This is an indication that more research needs to be conducted on different groups of clients and their mental health problems. Perhaps as more data surfaces on practitioners' clients, we will have a clearer picture of the types of clients that use psychological services and the problems they bring to psychology practitioners.

Feedback about survey experiences

Another part of the project's goals, a formative evaluation on survey procedures was carried out after data for all four surveys were successfully collected and analyzed. In

addition to having the Survey Procedures Manual reviewed by experts, a small subsample of participants who had completed Survey 3 and Survey 4 were asked to complete a Feedback Questionnaire about their survey experience. With the help of the project's consultant Dr. John Hunsley and CPA's CEO Dr. Karen Cohen, the Feedback Questionnaire was developed to target the following key areas of interest from which to gather feedback (see Appendix J for the complete questionnaire):

- Survey completion time
- Content of future surveys
- Responding to the online questions (e.g., clarity, ease)
- Breadth/depth of the questions
- Functionality of online questionnaire/methodology used
- Information dissemination
- Compensation and recruitment

Questions were developed to address these concepts with the goals of improving the usability and clarity of future surveys, reducing respondent burden, targeting important topics in psychological practice for future surveys, disseminating the findings in the most effective and useful manner, and gaining feedback on the overall experience of completing the surveys.

Once the questionnaire was finalized, the survey questions were inputted into an online survey database called Lime Survey. Lime Survey is an online survey site that does not require participants to have login information and all data submitted remains completely anonymous. All participants who had completed Survey 3 and Survey 4 were

sent a recruitment email (see Appendix K) asking them to provide feedback on their survey experiences. We were interested in recruiting 30 participants to provide feedback; approximately 10 Francophone participants and 20 Anglophone participants with an even distribution from each survey. Interested participants were sent a link to the survey and were given two weeks to submit their responses.

Feedback Questionnaire Results

At the end of the two week period, 31 practitioners provided feedback about their survey experience. We asked practitioners what surveys they had completed throughout the course of the project; 55% had responded to Survey 3 and 55% had responded to Survey 4 (19% of practitioners had completed both surveys). Fifty-eight percent of practitioners had also completed Survey 1 and 29% had completed Survey 2 as well. Among practitioners who provided feedback, 74% had completed the surveys in English and 26% had completed the surveys in French.

The following section of the Feedback Questionnaire asked participants to provide ideas about the content of future surveys; particularly around specific populations of clients and psychological problems. Practitioners suggested that future surveys could address issues in the following client populations: First Nations, the military, older adults, children and adolescents, and newcomers, immigrants, and refugees. Less frequently mentioned suggestions included populations of clients with severe and persistent mental illness, clients that are homeless, brain-injured clients, clients with substance abuse problems, women who have been sexually abused, and young adults (e.g., with eating disorders, or who live with their parents and have been unable to chart their own life course). Many suggestions

regarding specific psychological problems were brought forth by the practitioners who responded to the Feedback Questionnaire. These included problems with addiction and substance or medication dependence, attachment problems, anxiety and mood problems, cognitive impairments, and attention problems. Some practitioners also noted that future surveys could target personality disorders, fetal alcohol syndrome, trauma and pain, and post-traumatic stress disorder. Practitioners also included other suggestions for the content of future surveys. These included a focus on specialty practice among providers, therapeutic strategies and approaches, health systems research, the role of psychological knowledge in the practice of other professions, longitudinal studies, policy and legislation related to mental health, and career choice among clinical psychology students—academia versus practice.

Nearly one-half of practitioners (48%) indicated that they had spent between 10-20 minutes completing the survey(s) on average. Approximately one-third (32%) of practitioners had taken longer than 20 minutes to complete the survey(s). The remaining practitioners indicated that they had spent less than 10 minutes completing the survey(s). We asked practitioners to specify how much time they spent completing the survey if they indicated taking longer than 20 minutes and 16% of those practitioners indicated that it took between 30-45 minutes to complete the survey. Six percent indicated the survey only took between 20-25 minutes to complete. Fifty-eight percent of practitioners indicated that a survey lasting between 10-30 minutes is an acceptable length for a survey, while 32% of practitioners indicated that 30-45 minutes was an acceptable length for a survey.

The majority of practitioners responding to the Feedback Questionnaire agreed or strongly agreed that answering the client demographic (e.g., client age, gender, marital status, etc.), service characteristic (e.g., services provided, practice setting, etc.), and client psychosocial functioning (e.g., risk factors, presenting problems, etc.) questions was easy for them to complete; that is, the information was readily available to them or they were easily able to recall the information relevant to the selected client. The majority of practitioners similarly agreed or strongly agreed that those same questions were clear and easily understood. Practitioners were able to add comments or suggestions about these groups of questions, such as having an "other" category for most questions because some practitioners found it challenging to categorize some clients on some dimensions. One respondent mentioned that the service characteristic questions did not capture the treatment planning process and that we should consider asking what treatments are being considered but have not yet been coordinated or delivered. Also, chronic conditions may not be as one-dimensional as is portrayed in the questions. It was suggested that we try to target the interaction between chronic condition and mental health more in depth.

We similarly asked practitioners whether the client demographic, service characteristics, and client psychosocial functioning questions adequately captured all of the relevant information about the selected client. The majority of practitioners, between 74% and 84%, agreed that the aforementioned questions adequately targeted the relevant client information. Several practitioners offered suggestions to improve the breadth of the questions. Regarding demographic information, it was suggested that we continue to ask about the client's language and any necessary accommodations (e.g. if the client was

hearing impaired), to focus more on the rural-urban distinction of client populations, and to ask about medication dependence, such as opioid dependence. Suggestions for additional service characteristic questions included asking about the spiritual aspect of psychological service, legal stresses, the trans-disciplinary approach in the context of primary care, and to ask more questions about sessions with the parent(s) or guardian(s) (when conducting surveys on child and youth clients). Few suggestions were made regarding questions on the client's psychosocial functioning; however, it was noted that questions could address the spiritual aspect of psychosocial functioning and whether the client was competent or needed a guardian in place.

Nearly all of the practitioners agreed or strongly agreed that the online questionnaire was easy to use and convenient. Although more than one-half of practitioners agreed or strongly agreed that the real-time sampling methodology was also easy to use and convenient, some practitioners disagreed. Problems noted for real-time sampling included being invited to the survey while on vacation, having a longer time delay to complete the survey (e.g., 72 hours rather than 48 hours), and the difficulty in managing a response in the time frame with busy schedules and unforeseen circumstances. No participants indicated that a question should be removed from the original surveys.

Practitioners were asked to provide feedback on the process of information dissemination. Specifically, we were interested in knowing what practitioners thought CPA should do with the information from the surveys. More than one-half of practitioners reported that CPA should publish the results of the project's surveys not only in academic journals, but also in Psynopsis (CPA's member publication), on the CPA website, and

through the provincial association and regulatory bodies as well. Practitioners highlighted the importance of giving this information back to the participants of the survey, CPA members, and psychologists that would delineate the value of the service provided by psychologists and the role of psychology in Canada. It was also noted that the project's results could be used to advocate for mental health services to particular client groups and to promote the role of psychology in health care practices. Additionally, some practitioners indicated that it would be important to disseminate the results of this project to the general public, with the goal of creating awareness of the effectiveness of psychological treatment.

We asked practitioners to indicate what would be the best format to transmit the results of the surveys to the general public, to psychology practitioners, and to the government and/or policy makers. An equal number of practitioners reported that social media (61%) and brochures (61%) would be the best format to transmit the results of this project to the general public and approximately one-half of practitioners (55%) reported that CPA's website would also be a good format to transmit information to the public. Less than one-half of practitioners reported that journals (36%) and "other" methods (42%) would be ideal to transmit results to the general public. Participants had a different opinion as to the best format to transmit the results to other psychology practitioners; the majority of practitioners reported that CPA's website (81%) and journals (71%) would be ideal formats. Social media (29%), brochures (26%), and "other" methods (36%) were less frequently endorsed as good formats to transmit the results to other psychology practitioners. Nearly one-half of practitioners reported that CPA's website (48%) and brochures (48%) would be good formats to disseminate information to the government or

policy makers. Social media (26%) and journals (36%) were less frequently endorsed as good formats to transmit the results to government or policy makers. However, practitioners mentioned that "other" methods (55%) might be more effective for transmitting the results of the project to government and policy makers. Many practitioners noted that holding direct meetings, sending reports or executive summaries, creating targeted, language-appropriate brochures for all levels of government and policy makers would be great ways to transmit the results of this project. Practitioners also noted other ways to transmit the results of this project to the general public and other psychology practitioners. Press releases and news features on the television, radio, and in newspapers was the most frequently reported "other" method to transmit information to the general public. Again, practitioners emphasized that publishing the project's findings in the provincial association newsletters would be a great way to transmit the project's findings to psychology practitioners.

The surveys created from this project and the ensuing results are invaluable in describing the practice of psychologists and hence their role in addressing the mental health problems of Canadians. That being said, it may prove challenging to move forward with future surveys without the contribution agreement from the Public Health Agency of Canada, which allowed us to compensate practitioners for their time in completing the surveys. Thus, we asked practitioners if they would complete additional surveys of this type without financial compensation; 74% of practitioners indicated that they would indeed complete future surveys without financial compensation, but 19% did not answer the question. Additionally, we asked the participating practitioners if they had any ideas about

how we can encourage psychology practitioners to participate in the survey process without them receiving financial compensation. Many practitioners indicated that we should highlight the importance of research on psychological practice and what the findings can do for the promotion of the psychology profession and to support the public and government profile of psychology. Other practitioners noted that providing the results to participating practitioners, keeping the time commitment of the surveys brief (approximately 20 minutes in length maximum), and demonstrating how the results will be shared with stakeholders (e.g., general public, relevant branches of the government) would be helpful to incent participation. Some practitioners also made suggestions for incentives, such as book credits or certificates, membership fee discounts, convention fee discounts, and continuing education credit.

In addition to asking practitioners how we can encourage participation in future surveys, we also asked practitioners to identify an ideal time for them to complete these surveys and the best method to notify practitioners about upcoming surveys. Sixty-four percent of the practitioners indicated that any time during the year would be a good time to recruit for survey participation. Recruiting survey participants during CPA membership renewal or provincial registration was supported by 36% and 42% of practitioners respectively. A minority of practitioners specified an ideal time for survey recruitment, such as in the autumn or winter months, and before or after any elections. Participating practitioners reported that the best method to notify psychology practitioners about upcoming surveys is through email (84%). Some practitioners also indicated that Psynopsis (45%), CPA's Recruit Research Participants Portal (R2P2; 36%), and through the provincial

and territorial regulatory bodies (36%) would also be good methods to notify practitioners about survey participation.

Several practitioners provided additional comments on their survey experience. These comments were primarily positive feedback about how they enjoyed participating and appreciate the research on Canadian psychological practice. Some practitioners took the opportunity to re-emphasize the necessity of educating the public that psychology works and that they look forward to seeing the results of this project.

Main Recommendations for Future Surveys

- Maintain survey length to approximately 20-30 minutes as it is deemed acceptable and not too burdensome
- Maintain level of language and specificity of current questions as they are clear, understandable, and the information to answer them is readily available to the practitioner
- Maintain consistency for the client demographic questions; continue to ask about the client's language and the client's residential setting (e.g., rural or urban)
- Although practitioners did not appear to favour one time of the year over any other for survey recruitment, it has been our experience that it is more challenging to recruit participants during the summer and near the winter holidays. Future survey recruitment should avoid conducting surveys around those times of the year.
- Future surveys should focus on collecting demographic and clinical data on specific populations of clients. Suggestions for targeted populations of clients included First Nations, the military, older adults, children and adolescents, and newcomers,

immigrants, and refugees. Future surveys could also focus on particular problems, such as substance dependence and addiction, childhood disorders (e.g., attachment, attention problems), anxiety and mood problems, and cognitive impairments.

- Disseminate the results of this project and future surveys to interested stakeholders, namely the general public, psychology practitioners, and policy makers, with the goal of promoting the role of psychology in health practices and well-being.

Conclusions and Future Directions

The objectives and expected outcomes for all phases of the project were fully met. We successfully recruited a representative sample of over 500 psychological practitioners from across Canada to complete information on their practice characteristics and demographics. We were also successful in recruiting participants to complete a general client survey, as well as two additional surveys on the demographic and mental health characteristics of a randomly selected client. Participants completed the general client survey on two occasions, which allowed us to determine the reliability future utility of real-time sampling methodology. Although real-time sampling is not a perfect methodological tool, we were able to find moderate consistency between the two administrations of Survey 2. Based on our experience with Survey 4, it appears as though real-time sampling is a more valuable tool for a general client survey (such as Survey 2 and Survey 3) rather than a survey geared towards a specific group of clients (clients diagnosed with CVD or diabetes, such as with Survey 4). Finally, the feedback received from participants will help improve the relevance and comprehensiveness of future surveys of this project, as well as any future administrations of the survey instrument. It is CPA's hope that we can sustain the project

and we are currently looking at ways in which we can collect more ongoing data about the delivery of psychological services in Canada.

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Table 1

Survey 1: Demographic information of registered psychologists in Canada

Variable		Frequency	%
Gender			
	Female	399	74.2
	Male	139	25.8
Degree			
	Masters	221	41.1
	Doctorate	317	58.9
Area of Psychology			
	Clinical psychology	329	61.2
	Counselling psychology	65	12.1
	Clinical neuropsychology	42	7.8
	School psychology	42	7.8
	Other[a]	60	11.2
Location			
	British Columbia	34	6.3
	Alberta	50	9.3
	Saskatchewan	29	5.4
	Manitoba	19	3.5
	Ontario	170	31.6
	Quebec	190	35.3
	Eastern provinces[b]	46	8.5
Type of residence			
	Urban	518	96.3
	Rural	20	3.7

[a]Twenty additional areas of psychology were listed in the "Other" category, including but not limited to Developmental psychology (1.9%), Educational psychology (1.7%), Experimental psychology (1.7%), Social psychology (0.7%), etc. Several participants also listed having a degree with a combination of clinical and counselling psychology (0.9%) or clinical and school psychology (1.3%).

[b]The Eastern provinces include New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador. The data were combined due to cell sizes smaller than 10 for some provinces.

Table 2

Survey 1: Practice characteristics of registered psychologists in Canada

Variable		Frequency	%
Type of practice	Exclusively public	123	22.9
	Primarily public with some private	195	36.2
	Equally public and private	26	4.8
	Primarily private with some public	46	8.6
	Exclusively private	148	27.5
Full or part-time practice	Full-time	404	75.1
	Half-time	99	18.4
	Less than half the time	35	6.5
Client age group	Children under 12	247	45.9
	Adolescents (12-17)	338	62.8
	Young adults (18-25)	437	81.2
	Adults (26-59)	430	79.9
	Older adults (60+)	281	52.2
Presenting problems typically seen	Mood disorders	450	83.6
	Anxiety disorders	474	88.1
	Personality disorders	283	52.6
	Intrapersonal issues	450	83.6
	Interpersonal issues	417	77.5
	Vocational issues	182	33.8
	Learning problems	229	42.6
	Cognitive functioning problems of adulthood	147	27.3
	Cognitive functioning problems of childhood	175	32.5
	Psychological and psychosocial problems of childhood	248	46.1
	Psychosis	116	21.6
	Managing health, injury, illness	220	40.9
	Adjustment to life stressors	382	71
	Eating disorders	164	30.5
	Sleep disorders	192	35.7
	Somatoform disorders	174	32.3
	Sexual abuse and trauma	287	53.3
	Sexual disorders	89	16.5
	Substance use and/or abuse disorders	165	30.7
	Other[a]	66	12.3

[a]Twenty-seven additional problems were listed in the "Other" category, including but not limited to developmental problems (1.1%), childhood behaviour problems (1.1%), autism (0.9%), traumatic brain injury (0.7%), post-traumatic stress disorder (0.7%), etc…

Table 3

Survey 1: The nature of provisional services provided by registered psychologists in Canada

Variable		Frequency	%
Type of service	Mood and behaviour assessment	399	74.2
	Intellectual functioning assessment	290	53.9
	Neuropsychological assessment	90	16.7
	Vocational assessment	76	14.1
	Individual therapy	456	84.8
	Family therapy	143	26.6
	Couple therapy	147	27.3
	Group therapy	107	19.9
	Organizational or program consultation	124	23.0
	Clinical and/or counselling consultation	350	65.1
Theoretical orientation	Cognitive behavioural	429	79.7
	Interpersonal	124	23.0
	Psychodynamic	142	26.4
	Humanistic and/or experiential	164	30.5
	Family systems	112	20.8
	Other[a]	110	20.4
Area of consultation	Health organizations	257	47.8
	Corporate sector	41	7.6
	Education institutions	191	35.5
	Correctional institutions	42	7.8
	Legal system	69	12.8
	Community agencies	183	34
	Other[b]	63	11.7
	No consultation	126	23.4
		Mean	**SD**
Professional time (%)	Assessment	28.5	24.3
	Intervention	41.3	30.1
	Consultation	13.3	16.2
	Teaching	5.9	10.6
	Research	5.5	13.1
	Other[c]	5.6	12.3
Method of payment for services (%)	Pay directly, no insurance	11.3	17.7
	Pay direct with most reimbursed by insurance	22. 8	27.5
	Paid workers comp	3.4	10.6
	Paid by employee assistance	6.1	15.2
	Paid by publicly funded institution	48.2	43.6
	Pay other insurance	6.9	16.0
	Received pro-bono	1.3	3.3

[a]Participants listed twenty-nine other theoretical positions that characterized their practice, including but not limited to integrative or eclectic (2.6%), neurocognitive (1.9%), EMDR (1.5%), solution-focussed (1.7%), systemic (1.1%), developmental (1.1%), feminist (1.1%), psychoanalytic (0.9%), etc…

[b]Participants also indicated that they consulted with a variety of other sources (14), including but not limited to other psychologists (2.6%), other professions (1.7%), government (1.7%), family members (1.9%), organizations or treatment centres (1.1%), etc…

[c]Other areas of professional time were not specified by the participants

Table 4

Survey 1: Mean values (with standard deviations) for group differences regarding professional time

Variable	Group	Assessment	Intervention	Consultation	Teaching	Research	Other
Degree	Masters	23.6 (23.4)	50.0 (31.4)	14.8 (19.7)	4.2 (11.5)	3.2 (10.3)	4.2(11.2)
	Doctorate	31.8 (24.4)$_a$	35.2 (27.5)$_a$	12.2 (13.2)	7.0 (9.9)$_a$	7.2 (14.6)$_a$	6.6 (12.9)
Area of psychology	Clinical	24.5 (21.7)$_{bc}$	47.5 (28.9)$_{bc}$	11.5 (15.3)$_c$	5.5 (10.4)	5.8 (14.2)	5.2 (11.5)
	Counselling	20.7 (20.9)$_{bc}$	47.2 (29.7)$_{bc}$	17.3 (20.9)	5.7 (10.5)	2.5 (8.2)	6.6 (14.9)
	Neuropsychology	55.4 (25.8)	14.5 (19.9)	8.3 (12.8)	10.1 (14.0)	9.1 (13.8)	2.7 (6.3)
	School	43.3 (24.0)	25.7 (23.0)	19.7 (12.8)$_b$	4.1 (8.9)	1.6 (3.9)	5.5 (10.6)
	Other	29.5 (24.9)$_{bc}$	30. 7 (30.7)$_b$	17.4 (17.0)$_b$	6.5 (10.0)	7.4 (14.2)	8.6 (16.3)
Type of practice	Exclusively public	38.9 (24.5)	29.4 (25.2)$_f$	16.3 (12.4)	3.6 (4.9)	4.8 (10.6)$_i$	7.1 (14.7)
	Primarily public	28.3 (24.1)$_d$	34.0 (25.7)$_f$	12.1 (13.5)	8.6 (13.8)$_{gh}$	9.4 (17.9)	7.7 (14.1)
	Equally	27.7 (24.4)	42.1 (26.9)$_f$	10.5 (14.8)	11.1 (14.1)$_h$	7.3 (12.9)	1.3 (4.0)
	Primarily private	26.0 (24.9)	41.2 (30.8)$_f$	17.5 (20.8)	10.4 (12.5)$_{gh}$	3.6 (7.6)$_i$	1.3 (4.9)
	Exclusively private	20.9 (21.5)$_{de}$	60.7 (30.3)	11.5 (20.1)	1.8 (4.3)	1.4 (5.5)$_i$	3.7 (8.9)

Note. Means sharing a common subscript are significantly different from each other at $p < .01$.

Table 5

Survey 1: Mean percentage (with standard deviations) of the client's method of payment, separated by degree attainment

Method of payment (%)	Masters	Doctoral
Pay directly	10.7 (15.3)	11.7 (19.2)
Most reimbursed by insurance**	27.7 (29.1)	19.4 (25.8)
Workers compensation	2.5 (5.7)	4.9 (12.9)
Other insurance	5.4 (13.1)	7.9 (17.7)
Employee assistance**	11.3 (20.4)	2.4 (8.6)
Publicly funded institution**	41.6 (43.8)	52.8 (43.0)
Pro-bono**	0.8 (2.4)	1.7 (3.8)

** $p < .01$

Table 6

Survey 1: Significance test results (F values) for practitioner characteristics

Variable		Gender	Degree	Area of psychology	Excl. public vs. excl. private	Practice context: All categories
Age		13.7**	0.1	8.9**		
Number of clients			15.9	13.2**	5.1	7.1**
Professional time	Intervention		33.3**	19.5**	83.5**	27.8**
	Assessment		15.1**	24.2**	8.9	9.9**
	Consultation		3.6	5.8**	5.3	2.8
	Teaching		9.7	2.2	11.1**	15.3**
	Research		12.0**	2.9	11.6**	8.8**
	Other		5.1	1.6	5.4	5.0
Method of payment	Pay directly		0.4		96.9**	30.4**
	Most reimbursed by insurance		12.1**		271.0**	67.8**
	Workers compensation		2.8		17.2**	3.5**
	Other insurance		3.3		44.8**	17.4**
	Employee assistance		47.9**		46.7**	14.1**
	Publicly funded institution		8.7**		2882.0	258.8**
	Pro-bono		9.8**		13.1**	5.2**

** $p < .01$

Table 7

Survey 1: Significance test results (chi-square values) for practitioner characteristics

Variable		Gender	Degree	Practice context
Degree				6.6**
Area of psychology		4.0	38.6**	21.6**
Province/Region			134.4**	51.5**
Years of experience		11.2**		
Type of service	Assessment: mood/behaviour		33.5**	9.4**
	Assessment: intellectual functioning		21.1**	41.7**
	Neuropsychological assessment		9.3**	10.0**
	Vocational assessment		0.2	12.2**
	Individual therapy		4.5	47.1**
	Family therapy		0.1	5.1
	Couple therapy		2.9	41.8**
	Group therapy		4.8	8.6**
	Organizational or program consultation		7.3**	16.1**
	Clinical/counseling consultation		3.2	0.7
Presenting problems	Mood disorders		0.7	10.5**
	Anxiety disorders		1.4	26.4**
	Personality disorders		0.0	2.9
	Intrapersonal issues		8.3**	25.4**
	Interpersonal issues		15.4**	46.4**
	Vocational issues		4.3	23.9**
	Learning problems		6.2	22.9**
	Cognitive functioning problems of adulthood		8.0**	0.0
	Cognitive functioning problems of childhood		1.7	27.3**
	Psychological and psychosocial problems of childhood		1.1	12.3**
	Psychosis		8.5**	7.4**
	Managing health, injury, illness		7.5**	12.1**
	Adjustment to life stressors		4.6	63.0**
	Eating disorders		1.0	2.0
	Sleep disorders		0.0	5.9
	Somatoform disorders		2.5	13.5**
	Sexual abuse and trauma		5.3	19.4**
	Sexual disorders		0.3	3.4
	Subst. use and/or abuse		0.1	1.7

	disorders		
	Other	0.3	0.2
Consultation	Health organizations		29.0**
	Corporate sector		20.9**
	Education institutions		30.0**
	Correctional institutions		0.2
	Legal system		13.9**
	Community agencies		5.6
	Other		2.9

**p < .01

Table 8

Survey 1: Mean values (with standard deviations) for method of payment between practitioners with various types of practices

	Practice context				
Method of payment	Exclusively public	Primarily public	Equally public and private	Primarily private	Exclusively private
Pay directly	1.1 (9.3)	8.3 (14.6)$_{a}$	14.1 (14.3)$_{a}$	21.2 (22.1)$_{ab}$	20.3 (19.9)$_{ab}$
Most reimbursed by insurance	1.3 (6.0)	16.3 (24.1)$_{a}$	31.4 (24.6)$_{ad}$	40.0 (25.4)$_{ad}$	42.3 (27.1)$_{ad}$
Workers compensation	1.0 (9.1)$_{c}$	3.5 (12.2)	1.7 (4.0)$_{c}$	4.2 (12.4)	5.5 (9.1)
Other insurance	0.8 (7.0)	4.3 (10.9)$_{e}$	6.8 (12.8)	7.7 (16.3)	15.1 (22.8)$_{ef}$
Employee assistance	0.2 (1.3)	4.2 (14.0)$_{gh}$	4.0 (10.0)$_{h}$	10.4 (17.6)$_{g}$	12.5 (19.9)$_{g}$
Publicly funded institution	95.3 (17.9)	62.3 (36.6)$_{i}$	39.9 (25.0)$_{ij}$	13.9 (20.2)$_{ijk}$	2.6 (10.0)$_{ijkl}$
Pro-bono	0.4 (2.7)	1.2 (3.1)	2.1 (5.3)	2.6 (4.2)$_{m}$	1.8 (3.2)$_{m}$

Note. Means sharing a common subscript are significantly different from each other at p < .01.

Table 9

Survey 2: Correlations of the variables analyzed for consistency assessment.

Variable	Spearman's *rho*
Client's age	.57**
Sessions with client	.33**
Additional sessions	.44**
Risk factor total	.33**
Presenting problem total	.33**
Chronic disorder total	.21
Referral to other treatment	.02
Receiving other health service	.28**
Additional DSM-IV-TR diagnoses total	.01
Client's ethnicity	.38**
Nationality	.07
Receiving other health service	-.26**
Type of service: Assessment of mood, behaviour, and personality	.18
Type of service: Assessment of intellectual functioning	.46**
Type of service: Neurological assessment	1.00**
Type of service: Vocational assessment	--
Type of service: CBT	.45**
Type of service: Interpersonal therapy	.39**
Type of service: Psychodynamic therapy	-.09
Type of service: Humanistic therapy	.63**
Type of service: Family systems therapy	.23
Type of service: Other service provided	.36**
Presence of chronic disorder	.11

**p < .01

Table 10

Survey 2: Consistency analysis for continuous variables using Wilcoxon matched signed-ranks

Variable	*Z*	Effect size (*r*)
Number of sessions	1.28	
Number of additional sessions	.48	
Risk factor total	-3.78**	.32
Presenting problems total	-3.27	
Chronic disorders total	-.47	
Referral to other treatment total	3.84**	.33
Other health service total	-1.36	
Additional DSM-IV-TR diagnoses total	-.97	

**p < .01

Table 11

Survey 2: Means, medians, and standard deviations for client characteristics (continuous variables)

Variable	Wave 1			Wave 2		
	Mean	Median	SD	Mean	Median	SD
Client's age	32.3	32	16.7	33.5	36	16.3
Number of sessions	14.2	5	22.2	23.8	7.5	46.8
Additional number of sessions	11.2	6	13.4	14.0	8	26.8
Risk factor total	1.7	1	1.3	1.2	1	1.2
Presenting problems total	3.4	3	2.1	2.8	3	1.6
Chronic disorders total	0.7	0	0.9	0.7	0	1.0
Referral to other treatment total	0.2	0	0.5	0.5	0	0.8
Other health service total	0.8	0	1.0	0.7	0	1.0
Additional DSM-IV-TR diagnoses total	0.8	1	0.9	0.7	0	0.9

Table 12

Survey 2: Consistency analysis for dichotomous variables using McNemar change test

Variable	McNemar χ^2
Presence of chronic disorder	.40
Nationality	.00
Receiving other health service	2.88
Type of service: Assessment of mood, behaviour, and personality	5.06
Type of service: Assessment of intellectual functioning	.57
Type of service: Neurological assessment	.00
Type of service: Vocational assessment	.00
Type of service: CBT	1.23
Type of service: Interpersonal therapy	.00
Type of service: Psychodynamic therapy	.13
Type of service: Humanistic therapy	.25
Type of service: Family systems therapy	.00
Type of service: Other service provided	.14

Table 13

Survey 2: Frequencies for client demographics

Variable		Wave 1		Wave 2	
		N	*%*	*N*	*%*
Gender	Male	47	33.6	64	45.7
	Female	91	65.0	76	54.3
	Transgender	2	1.4	0	0
Ethnicity	White	119	85.0	122	87.1
	Other[a]	21	15.0	18	12.9
Language	English	87	62.1	87	62.1
	French	47	33.6	47	33.6
	Other[b]	6	4.3	6	4.3
Nationality	Born in Canada	132	94.3	132	94.3
	Moved to Canada	8	5.7	8	5.7
Citizenship status	Immigrant	6	4.3	6	4.3
	Refugee	0	0	0	0
	Unknown	2	1.4	2	1.4
Marital status	Married	30	21.4	36	25.7
	Common law	22	15.7	19	13.6
	Widowed	2	1.4	5	3.6
	Separated	9	6.4	8	5.7
	Divorced	9	6.4	10	7.1
	Single and never married	64	45.7	60	42.9
	Unknown	4	2.9	2	1.4
Sexual orientation	Heterosexual	110	78.6	111	79.3
	Gay/lesbian	4	2.9	3	2.1
	Bisexual	1	0.7	2	1.4
	Unknown	25	17.9	24	17.1
Living arrangements	Private residence	128	91.4	131	93.6
	Residential care	3	2.1	4	2.9
	Institutional setting	7	5	3	2.1
	Homeless or shelter	0	0	0	0
	Other	2	1.4	2	1.4
Education level	Grade 8 or lower	4	2.9	33	23.6
	Some high school	24	17.1	12	8.6
	High school diploma	23	17.1	28	20.0
	College	19	13.6	15	10.7

	certificate/diploma				
	Trades certificate/diploma	3	2.1	7	5
	Some undergraduate	8	5.7	9	6.4
	Undergraduate degree	19	13.6	20	14.3
	Graduate or professional degree	7	5	8	5.7
	Unknown	3	2.1	0	0
	Not applicable	30	21.4	8	5.7
Employment status	Full-time	48	34.3	52	37.1
	Part-time	9	6.4	10	7.1
	No	22	15.7	20	14.3
	No, on disability	14	10.0	18	12.9
	Unknown	2	1.4	0	0
	Student	25	17.9	16	11.4
	Not applicable	20	14.3	24	17.1
Occupation	Management	7	5.0	4	2.9
	Professional	11	7.9	12	8.6
	Technical occupation	8	5.7	9	6.4
	Administrative	4	2.8	15	10.7
	Sales or service	23	16.4	11	7.9
	Trades, transport, equipment	5	3.6	6	4.3
	Processing, manufacturing	3	2.1	2	1.4
	Other[c]	7	5.0	7	5.0
	Not applicable	74	52.9	70	50.0

[a]The clients' other languages included ASL, Croatian, Hindi, and Spanish among others.

[b]The other ethnicities listed were aggregated due to small cell sizes. Client ethnicities included Chinese, Black, and Aboriginal among many others.

[c]Other occupations included police officer, paramedic, entertainer, and soldier among others.

Table 14

Survey 2: Frequencies for client service characteristics

	Variable	Wave 1		Wave 2	
		N	*%*	*N*	*%*
Language of service	English	92	65.7	93	66.4
	French	47	33.6	46	32.9
	Other	1	0.7	1	0.7
City setting	Major urban centre	71	50.7	76	54.3
	Suburb of major urban centre	22	15.7	22	15.7
	Smaller city or town	37	26.4	35	25.0
	Rural setting	10	7.1	7	5.0
Service recipient	Client alone	102	72.9	110	78.6
	With significant other	7	5.0	6	4.3
	With family member	20	14.3	9	6.4
	With other caregiver	0	0	3	2.1
	With other service provider	4	2.9	6	4.3
	With other	7	5.0	6	4.3
Service setting	Private practice: group	18	12.9	17	12.1
	Private practice: individual	58	41.4	61	43.6
	Public health care	44	31.4	44	31.4
	Correctional facility	2	1.4	2	1.4
	Community or street outreach	3	2.1	2	1.4
	School	10	7.1	10	7.1
	University or college centre	5	3.6	4	2.9
Method of payment	Paid directly	15	10.7	17	12.1
	Most reimbursed by insurance	28	20	41	29.3
	Worker's compensation	7	5.0	7	5.0
	Other insurer	10	7.1	11	7.9
	Employer	14	10.0	5	3.6
	Publicly funded	53	37.9	52	37.1
	Pro-bono	3	2.1	0	0
	Other[a]	11	7.8	7	5.0
Type of services provided	Assessment mood, behaviour	45	32.1	27	19.3
	Assessment intellectual function	19	13.6	18	12.9
	Neurological assessment	10	7.1	9	6.4
	Vocational assessment	5	3.6	5	3.6
	CBT	66	47.1	66	47.1
	Interpersonal therapy	15	10.7	20	14.3
	Psychodynamic therapy	15	10.7	15	10.7
	Humanistic therapy	33	23.6	28	20.0

	Family systems therapy	7	5.0	9	6.4
	Other[b]	26	18.6	30	21.4
Other health services	Receiving services	64	45.7	81	57.9
	Psychiatrist	31	22.1	26	18.6
	General physician	40	28.6	33	23.6
	Nurse practitioner	2	1.4	5	3.6
	Psychologist	5	3.6	4	2.9
	Counsellor	5	3.6	4	2.9
	Education professional	8	5.7	4	2.9
	Other[c]	20	14.3	18	12.9
Referral source	Self	31	22.1	35	25.0
	Other client	7	5.0	2	1.4
	Legal system	7	5.0	4	2.9
	Family member	12	8.6	13	9.3
	School system	11	7.9	12	8.6
	Psychologist	10	7.1	11	7.9
	Psychiatrist	6	4.3	11	7.9
	Physician	27	19.3	28	20.0
	Other health care professional	18	12.9	16	11.4
	Insurance system	11	7.9	8	5.7
Referral to	Substance abuse treatment	5	3.6	2	1.4
	Other mental health treatment	18	12.9	14	10.0
	Psychological assessment	4	2.9	7	5.0
	Child and family services	3	2.1	6	4.3
	Social services	8	5.7	5	3.6
	Medication evaluation	15	10.7	12	8.6
	Other health	8	5.7	7	5.0
	Support or self-help	12	8.6	17	12.1
	No referrals made	90	64.3	93	66.4
Receiving medication	Yes	59	42.1	59	42.1
	No	76	54.3	74	52.9
	Unknown	5	3.6	7	5.0
Type of medication	Anti-depressants	46	32.9	48	34.3
	Anxiolytics	9	6.4	10	7.1
	Antipsychotics	12	8.6	15	10.7
	Stimulants	8	5.7	1	0.7
	Hypnotics	3	2.1	2	1.4
	Mood stabilizers	5	3.6	6	4.3
	Unknown	1	0.7	0	0
Medication prescriber	Family physician/GP	24	17.1	34	24.3
	Psychiatrist	32	22.9	23	16.4
	Nurse practitioner	0	0	1	0.7

	Other health specialist	3	2.1	1	0.7
	Not applicable	81	57.9	81	57.9
Medication related to health problem	Yes	38	27.1	39	27.9
	No	94	67.1	92	65.7
	Unknown	8	5.7	9	6.4
Medication unrelated to health problem	Yes	21	15.0	31	22.1
	No	87	62.1	87	62.1
	Unknown	32	22.9	22	15.7

[a]Other payment methods included child and family service organizations, research grant, criminal aid organization, or a combination of methods among others.
[b]Other services provided included various assessments, consultation, psychoeducation, various types of therapy, etc…
[c]Some clients received other health services from a social worker, dietitian, neurologist, physiotherapist, or a multidisciplinary team among others.

Table 15.

Survey 2: Frequencies for client psychosocial functioning

	Variable	Wave 1		Wave 2	
		N	*%*	*N*	*%*
Risk factors	Parental mental disorder	70	50.0	47	33.6
	Marital problems	42	30.0	30	21.4
	Bereavement during childhood	5	3.6	8	5.7
	Mobility or frequent moves	15	10.7	9	6.4
	Failure to graduate high school	20	14.3	9	6.4
	Physical/sexual abuse as child	29	20.7	24	17.1
	Removal from family	10	7.1	9	6.4
	Other[a]	33	23.6	21	15.0
	Unknown	8	5.7	7	5.0
	No risk	19	13.6	46	32.9
Risk factor total	1	62	50.8	51	54.3
	2	30	24.6	25	12.8
	3	16	13.1	12	12.8
	4	9	7.4	4	4.3
	5	4	3.3	1	1.1
	6	1	0.8	1	1.1
Presenting problems	Mood disorders	62	44.3	44	31.4
	Anxiety disorders	52	37.1	48	34.3
	Personality disorders	15	10.7	13	9.3
	Intrapersonal issues	71	50.7	53	37.9
	Interpersonal issues	58	41.4	51	36.4
	Vocational issues	17	12.1	9	6.4
	Learning problems	20	14.3	20	14.3
	Cog. Funct. Of adulthood	7	5.0	9	6.4
	Cog. Funct. Of childhood	9	6.4	9	6.4
	Psych problems of childhood	26	18.6	17	12.1
	Psychosis	2	1.4	5	3.6
	Managing health	14	10.0	20	14.3
	Adj. to life stressors	46	32.9	43	30.7
	Eating disorder	8	5.7	5	3.6
	Sleep disorder	13	9.3	3	2.1
	Somatoform disorder	7	5.0	7	5.0
	Sexual abuse and trauma	15	10.7	10	7.1
	Sexual disorders	1	0.7	0	0
	Substance use/abuse	10	7.1	6	4.3
	Other[b]	24	17.1	19	13.6

Daily functioning	None	1	0.7	2	1.4
	Little	2	1.4	10	7.1
	Moderately	72	51.4	66	47.1
	Severely	63	45.0	61	43.6
	Unknown	2	1.4	1	0.7
Change status	Recovered	3	2.1	3	2.1
	Greatly improved	27	19.3	30	21.4
	Improved	70	50.0	71	50.7
	No change	39	27.9	35	25.0
	Deterioration	1	0.7	1	0.7
Chronic disorders	Neurological functions	17	12.1	16	11.4
	Mental functions	19	13.6	18	12.9
	Gross and fine motor functions	12	8.6	9	6.4
	Visual functions	1	0.7	3	2.1
	Auditory functions	2	1.4	2	1.4
	Speech and language functions	9	6.4	6	4.3
	Gastrointestinal functions	5	3.6	10	7.1
	Endocrinological functions	2	1.4	3	2.1
	Cardiological functions	4	2.9	2	1.4
	Respiratory functions	4	2.9	3	2.1
	Immunological functions	2	1.4	3	2.1
	Other[c]	13	9.3	17	12.1
	Unknown	8	5.7	7	5.0
	No chronic disorder	72	51.4	78	55.7
Chronic disorder total	1	45	65.2	43	68.3
	2	18	26.1	8	12.7
	3	5	7.2	8	12.7
	4-5	1	1.4	4	6.3
Chronic disorder daily functioning	None	15	10.7	13	9.3
	Little	22	15.7	19	13.6
	Moderate	36	25.7	40	28.6
	Severe	19	13.6	14	10.0
	Unknown	2	1.4	2	1.4
	Not applicable	46	32.9	52	37.1
Health status appraisal	Excellent	18	12.9	21	15.0
	Very good	36	25.7	23	16.4
	Good	38	27.1	42	30.0
	Fair	23	16.4	33	23.6
	Poor	19	13.6	13	9.3
	Unknown	6	4.3	8	5.7

DSM diagnosis	Yes	87	62.1	72	51.4
	No	28	20.0	45	32.1
	Evaluation incomplete	16	11.4	17	12.1
	Unknown	9	6.4	6	4.3
Primary DSM diagnosis	None	28	20.0	45	32.1
	Mood/Anxiety	50	35.7	39	27.9
	Psychotic	2	1.4	3	2.1
	Childhood disorders	12	8.6	9	6.4
	Other	20	14.3	14	10.0
Additional DSM diagnoses total	1	31	64.6	17	60.7
	2	12	25.0	7	25.0
	3	5	10.4	4	14.3
Substance abuse	Yes	23	16.4	13	9.3
	No	103	73.6	119	85.0
	Unknown	14	10.0	8	5.7

[a]Other risk factors included work-related factors, problems from birth, physical trauma, school-related factors, family-related factors, prior diagnosis, and multiple factors among others.

[b]Other presenting problems included intellectual problems, familial problems, criminal behaviour, post-traumatic stress disorder, etc…

[c]Other chronic disorders included injuries, pre-existing health concerns, spinal cord injury, or multiple chronic conditions among others.

Table 16

Focus groups: Participant demographics

Variable		Frequency	%
Gender	Female	15	78.9
	Male	4	21.1
Degree	Masters	1	5.3
	Doctorate	18	94.7
Area of Psychology	Clinical psychology	10	52.6
	Counselling psychology	3	15.8
	Clinical neuropsychology	2	10.5
	School psychology	0	0
	Other	4	21.1
Location	Vancouver	5	26.3
	Ottawa	9	47.4
	Halifax	5	26.3
Length of time in practice	Less than 10 years	6	31.6
	11-20 years	4	21.0
	20+ years	9	47.4
Type of practice	Exclusively public	4	21.1
	Combination of public and private	7	36.8
	Exclusively private	8	42.1
Full or part-time practice	Full-time	12	63.2
	Half-time	3	15.8
	Less than half the time	3	15.8
Client age group	Children under 12	9	47.4
	Adolescents (12-17)	11	57.9
	Young adults (18-25)	13	68.4
	Adults (26-59)	11	57.9
	Older adults (60+)	8	42.1
Presenting problems	Mood disorders	13	68.4
	Anxiety disorders	13	68.4
	Personality disorders	6	31.6
	Intrapersonal issues	14	73.7
	Interpersonal issues	12	63.2
	Vocational issues	3	15.8
	Learning problems	7	36.8
	Cognitive functioning problems of adulthood	2	10.5
	Cognitive functioning problems of childhood	6	31.6

	Psychological and psychosocial problems of childhood	10	52.6
	Psychosis	1	5.3
	Managing health, injury, illness	7	36.8
	Adjustment to life stressors	12	63.2
	Eating disorders	6	31.6
	Sleep disorders	6	31.6
	Somatoform disorders	4	21.1
	Sexual abuse and trauma	9	47.4
	Sexual disorders	3	15.8
	Substance use and/or abuse disorders	4	21.1
	Other	4	21.1
Type of service	Mood and behaviour assessment	11	57.9
	Intellectual functioning assessment	6	31.6
	Neuropsychological assessment	4	21.1
	Vocational assessment	0	0
	Individual therapy	15	78.9
	Family therapy	6	31.6
	Couple therapy	6	31.6
	Group therapy	4	21.1
	Organizational or program consultation	2	10.5
	Clinical and/or counselling consultation	9	47.4
Theoretical orientation	Cognitive behavioural	10	52.6
	Interpersonal	7	36.8
	Psychodynamic	5	26.3
	Humanistic and/or experiential	5	26.3
	Family systems	5	26.3
	Other	5	26.3
Area of consultation	Health organizations	8	42.1
	Corporate sector	2	10.5
	Education institutions	8	42.1
	Correctional institutions	0	0
	Legal system	4	21.1
	Community agencies	6	31.6
	Other	3	15.8
	No consultation	5	26.3
		Mean	**SD**
Professional time (%)	Assessment	22.4	24.0
	Intervention	37.6	32.7
	Consultation	11.8	20.9
	Teaching	11.84	17.9
	Research	5.26	7.5

	Other	11.1	25.7
Method of payment for services (%)	Pay directly, no insurance	24.1	30.9
	Pay direct with most reimbursed by insurance	41.6	39.4
	Paid workers comp	5.7	22.6
	Paid by employee assistance	6.2	22.7
	Paid by publicly funded institution	47.0	50.9
	Pay other insurance	5.7	22.6
	Received pro-bono	5.5	22.6
Average # of clients per week		12.2	8.5

Table 17

Survey 3: Psychology practitioner demographics

Variable		Frequency	%
Gender	Female	109	79.6
	Male	28	20.4
Degree	Masters	70	51.1
	Doctorate	67	48.9
Area of Psychology	Clinical psychology	70	51.1
	Counselling psychology	12	8.8
	Clinical neuropsychology	9	6.6
	School psychology	30	21.9
	Developmental psychology	4	2.9
	Other[a]	12	8.8
Location	British Columbia	18	13.1
	Alberta	17	12.4
	Saskatchewan	5	3.6
	Manitoba	4	2.9
	Ontario	20	14.6
	Quebec	42	30.7
	Eastern provinces[b]	31	22.6
Provides services primarily to children/youth	Yes	120	87.6
	No	16	11.7
Practice activity	>50% private practice	44	32.1
	>50% public practice	93	67.9

[a]Three additional areas of psychology were listed in the "Other" category, including Forensic psychology, Educational psychology, and Physiological psychology. Several participants also listed having a degree with some combination of clinical, counselling, developmental, or school psychology.

[b]The Eastern provinces include New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador. The data were combined due to cell sizes smaller than 10 for some provinces.

Table 18

Survey 3: Frequencies for child and youth client demographics

Variable		*N*	*%*
Gender	Male	66	48.2
	Female	70	51.1
	Transgender	1	0.7
Ethnicity	White	112	81.8
	Other[a]	25	18.2
Language	English	89	65.0
	French	36	26.3
	Other[b]	12	8.8
Nationality	Born in Canada	128	93.4
	Moved to Canada	9	6.6
Citizenship status	Immigrant	7	5.1
	Refugee	0	0
	Unknown	2	1.5
Family structure	Two married parents	69	50.4
	Single parent	25	18.2
	Other[c]	42	30.6
Sexual orientation	Heterosexual	53	38.7
	Gay/lesbian	2	1.5
	Bisexual	4	2.9
	Unknown	78	56.9
Living arrangements	Single residence	107	78.1
	Multiple residences	17	12.4
	Foster care	9	6.6
	Group home	4	2.9
	Homeless or shelter	0	0
	Other	1	0.7
Attend school	Yes	119	86.9
	No	15	10.9
	Unknown	3	2.2
Type of school	Publicly funded	105	76.6
	Privately funded	14	10.2
	Home-schooled	0	0
	Not school aged	18	13.1

Special programs	Learning disorders	38	27.7
	Developmental disability	5	3.6
	Behaviour	26	19.0
	Slow learner	61	44.5
	Gifted	4	2.9
	Mental health issues	3	2.2
	Other	8	5.8
	None	65	47.4
Held back	Yes	19	13.9
	No	111	81.0
	Unknown	4	2.9
Work	Full-time	0	0
	Part-time	9	6.6
	No	97	70.8
	Unknown	4	2.9
	Not applicable	27	19.7

[a]The other ethnicities listed were aggregated due to small cell sizes. Client ethnicities included Aboriginal, Latin American, South Asian, and Arab among many others.

[b]The clients' other languages included ASL, Croatian, Hindi, and Spanish among others.

[c]When completing the survey, participants had the option of choosing from a variety of family structures, listed in Appendix D: Survey 3 questions (#7). However, for the purposes of analyses, many of the response options were grouped as "other" because of small cell sizes. The more frequently reported family structures in "other" were blended family (9.5%), foster care (5.8%), joint custody (5.1%), and extended family as caregivers (2.2%). Family structures representing the remaining clients included group home, widowed parent, the ward of court, or a combination of the options listed. One participant did not respond to the question.

Table 19

Survey 3: Frequencies for child and youth client service characteristics

Variable		*N*	*%*
Language of service	English	99	72.3
	French	38	27.7
	Other (Punjabi)	1	0.7
Services provided	Assessment	76	55.5
	Treatment	77	56.2
	Consultation	39	28.5
Consulted with	Teacher	65	47.4
	Education Assistant	20	14.6
	Other psychologist	30	21.9
	Principal or vice-principal	38	27.7
	Guidance counsellor	6	4.4
	School counsellor	3	2.2
	Other	9	6.6
	No consultation	53	38.7
Overall seeing	Parent(s)	110	80.3
	Family members	19	13.9
	Family physician	14	10.2
	Community support staff	11	8.0
	Social worker	7	5.1
	Paediatrician or specialist physician	6	4.4
	Other	15	10.9
	No one aside from client	8	5.5
Seen this session	Identified client only	80	58.4
	With parents	48	35.0
	With family members	5	3.6
	With other caregivers	6	4.4
	With other service provider	7	5.1
	With other	13	9.5
Receiving medication	Yes	41	29.9
	No	94	68.6
	Unknown	4	2.9
Type of medication	Anti-depressants	16	11.7
	Anxiolytics	3	2.2
	Antipsychotics	15	10.9
	Stimulants	21	15.3
	Hypnotics	0	0

	Mood stabilizers	2	1.5
	Unknown	1	0.7
	Other	3	2.2
Medication prescriber	Family physician/GP	9	22.0
	Psychiatrist	24	17.5
	Pediatrician	8	19.5
	Other specialist physician	0	0
	Nurse practitioner	0	0
	Other health specialist	0	0
Medication related to presenting problem	Yes	31	22.6
	No	102	74.5
	Unknown	4	2.9
Medication unrelated to presenting problem	Yes	14	10.2
	No	118	86.1
	Unknown	5	3.6
Other health services	Receiving services	36	26.3
	Psychiatrist	14	38.9
	General physician	9	25.0
	Social worker	7	19.4
	Psychologist	6	16.7
	Counsellor	3	8.3
	Speech language pathologist	2	5.6
	Occupational therapist	4	11.1
	Social service agencies	5	13.9
	Other[a]	9	25.0
Community services	Receiving community services	32	23.4
	Community resource or health centre	18	56.3
	Social skills	4	12.5
	Support groups	4	12.5
	Parent training	9	28.1
	Tutoring	3	9.4
	Therapy camps	1	3.1
	Other[b]	11	34.4
Referral source	Self	8	5.8
	Parent	48	35.0
	Other client	7	5.1
	Legal system	7	5.1
	Family member	3	2.2
	School system	45	32.8
	Psychologist	13	9.5
	Psychiatrist	10	7.3

	General physician	16	11.7
	Other health care professional	13	9.5
	Insurance system	0	0
	Community service	1	0.7
	Social services	18	13.1
	Professional referral service	2	1.5
Referral to	Substance abuse treatment	3	2.2
	Other mental health treatment	14	10.2
	Psychological assessment	13	9.5
	Educational	22	16.1
	Parent training	20	14.6
	Activities of daily living	1	0.7
	Housing	2	1.5
	Child and family services	8	5.8
	Social services	4	2.9
	Medication evaluation	16	11.7
	GP or specialist physician	7	5.1
	Other health	19	13.9
	Support or self-help	6	4.4
	Other	13	9.5
	No referrals made	62	45.3
Practice city setting	Major urban centre	65	47.4
	Suburb of major urban centre	30	21.9
	Smaller city or town	26	19
	Rural setting	16	11.7
Client city setting	Major urban centre	47	34.3
	Suburb of major urban centre	35	25.5
	Smaller city or town	36	26.3
	Rural setting	19	13.9
Service setting	Private practice: group	18	12.9
	Private practice: individual	58	41.4
	Public health care	44	31.4
	Correctional facility	2	1.4
	Community or street outreach	3	2.1
	School	10	7.1
	University or college centre	5	3.6
Method of payment	Directly, no reimbursement	5	3.6
	Directly, some reimbursement	12	8.8
	Directly, all reimbursement	18	13.1
	Publicly funded	66	48.2
	Paid in full, public agency	29	21.2
	Paid in part, public agency	0	0
	Pro-bono	1	0.7

Other	6	5.8

[a]Some clients received other health services from a nurse practitioner, pediatrician, neurologist, physiotherapist, anesthesiologist, special education teacher, or probation officer.

[b]Clients accessed a range of other community services, including additional assessments, parent counseling, child protection services, foster care support, and palliative care among others.

Table 20

Survey 3: Frequencies for child and youth client psychosocial functioning

Variable		*N*	*%*
Risk factors	Parental mental disorder	66	48.2
	Physical disability	9	6.6
	Mental health diagnosis	14	10.2
	Marital problems in the family	64	46.7
	Bereavement	17	12.4
	Mobility or frequent moves	13	9.5
	Academic performance problems	71	51.8
	Physical/sexual abuse	25	18.2
	Removal from family	21	15.3
	Attachment difficulties	30	21.9
	Bullying	23	16.8
	Aggression/anger	52	38.0
	Unusual fears	31	22.6
	School avoidance	28	20.4
	Pre-term birth	4	2.9
	Congenital health problems	3	2.2
	Other health	13	9.5
	Exposure to traumatic events	28	20.4
	Brain injury	4	2.9
	Other[a]	27	19.7
	Unknown	5	3.6
	No risk	7	5.1
Risk factor total	1	17	12.4
	2	20	14.6
	3	20	14.6
	4	21	15.3
	5	18	13.1
	6 or more factors	32	23.4
Presenting problems	Mood disorders	37	27.0
	Anxiety disorders	49	35.8
	Behaviour problems	63	46.0
	Intrapersonal issues	54	39.4
	Attentional problems	40	29.2
	Gifted assessment	3	2.2
	Learning problems	54	39.4
	School readiness	6	4.4
	Attachment problems	16	11.7
	Cognitive problems	12	8.8
	Autism	13	9.5
	Self-harm behaviours	23	16.8

	Psychosis	5	3.6
	Managing health	3	2.2
	Adj. to life stressors	29	21.2
	Parental separation	15	10.9
	Adoption consultation	2	1.5
	Eating disorder	9	6.6
	Sleep problems	13	9.5
	Somatoform disorder	0	0
	Sexual abuse and trauma	10	7.3
	Physical abuse	8	5.8
	Psychosexual problems	4	2.9
	Substance use/abuse	3	2.2
	Other[b]	15	10.9
Presenting problem total	1	31	22.6
	2	24	17.5
	3	24	17.5
	4	20	14.6
	5 or more	38	27.7
Daily functioning	None	1	0.7
	Little	7	5.1
	Moderately	72	52.6
	Severely	57	41.6
Change status	Recovered	1	0.7
	Greatly improved	28	20.4
	Improved	57	41.6
	No change	30	21.9
	Deterioration	1	0.7
	Not applicable	20	14.6
DSM diagnosis	Yes	65	47.4
	No	36	26.3
	Evaluation incomplete	30	21.9
	Unknown	2	1.5
	Does not use DSM	4	2.9
Primary DSM diagnosis	None	36	26.3
	Mood/Anxiety	20	35.7
	Psychotic	2	1.4
	ADHD	21	32.3
	Developmental (incl. Autism)	7	10.8
	Conduct	3	4.6
	Learning	3	4.6
	Other[c]	11	16.9
Additional DSM	1	47	61.8

diagnoses total	2	24	31.6
	3	5	6.6
Substance abuse	Yes	7	5.1
	No	126	92.0
	Unknown	4	2.9
Chronic disorder presence	Yes	19	13.9
	No	114	83.2
	Unknown	4	2.9
Chronic disorders	Neurological functions	2	10.5
	Mental functions	5	26.3
	Gross and fine motor functions	4	21.1
	Visual functions	0	0
	Auditory functions	1	5.3
	Speech and language functions	2	10.5
	Gastrointestinal functions	4	21.1
	Endocrinological functions	2	10.5
	Cardiological functions	1	5.3
	Respiratory functions	2	10.5
	Immunological functions	2	10.5
	Other[d]	5	26.3
Chronic disorder daily functioning	None	0	0
	Little	7	36.8
	Moderate	8	42.1
	Severe	4	21.1
	Unknown	0	0
Health status appraisal	Excellent	21	15.3
	Very good	38	27.7
	Good	41	29.9
	Fair	19	13.9
	Poor	6	4.4
	Unknown	12	8.8

[a]Other risk factors included other types of abuse (verbal, psychological, emotional), cognitive functioning issues, developmental problems, ineffective parenting, parental criminality, and parental absenteeism among others.

[b]Other reasons for being brought to psychological services included being bullied, medication, parent's terminal illness, toileting problems, removal from family, suicide attempt, and reassessment among others.

[c]Other DSM-IV-TR disorders include dissociative disorders, eating disorders, adjustment disorders, and the following other childhood disorders: attachment, tics, and mental retardation.

[d]Other chronic disorders included injuries, pre-existing health concerns, spinal cord injury, or multiple chronic conditions among others.

Table 21

Survey 4: Psychology practitioner demographics

Variable		Frequency	%
Gender	Female	69	75.0
	Male	23	25.0
Degree[a]	Masters	40	43.5
	Doctorate	50	54.3
Area of Psychology	Clinical psychology	63	68.5
	Counselling psychology	14	15.2
	Clinical neuropsychology	5	5.4
	School psychology	4	4.3
	Other[b]	6	5.4
Location[c]	Western provinces	25	27.2
	Ontario	24	26.1
	Quebec	30	32.6
	Eastern provinces	13	14.1
Provides services primarily to clients with CVD	Yes	79	85.9
	No	13	14.1
Provides services primarily to clients with diabetes	Yes	82	89.1
	No	10	10.9
Practice activity	>50% private practice	32	34.8
	>50% public practice	60	65.2

[a]Data for the participants' degree was missing for two participants.

[b]A few additional areas of psychology were listed in the "Other" category, including neuroscience, Educational psychology, and a general psychology degree. Two participants also listed having a degree with a combination of clinical and neuropsychology or rehabilitation psychology and clinical neuropsychology.

[c]The data were combined due to cell sizes smaller than 10 for some provinces. The Western provinces include British Columbia, Alberta, Saskatchewan, and Manitoba. The Eastern provinces include New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador.

Table 22

Survey 4: Frequencies for client demographics

Variable		*N*	*%*
Gender	Male	51	55.4
	Female	41	44.6
Ethnicity	White	80	87.0
	Other[a]	12	13.0
Sexual orientation	Heterosexual	83	90.2
	Gay/lesbian	3	3.3
	Bisexual	1	1.1
	Unknown	5	5.4
Marital status	Married or common law	46	50.0
	Widowed	7	7.6
	Divorced or separated	10	10.9
	Single	28	30.4
	Unknown	1	1.1
Living arrangements	Private residence	82	89.1
	Residential care	3	3.3
	Correctional setting	1	1.1
	Homeless or shelter	1	1.1
	Other	5	5.4
Education	Less than high school diploma	22	23.9
	High school diploma	17	18.5
	College or trades certificate/diploma	18	19.6
	At least some university or more	35	38.0
Work	Full-time	28	30.4
	Part-time	15	16.3
	No	28	30.4
	Disability pension	19	20.7
	Unknown	2	2.2

[a]The other ethnicities listed were aggregated due to small cell sizes. Client ethnicities included Aboriginal, Black, South Asian, Japanese, Korean, and mixed ethnicity.

Table 23

Survey 4: Client chronic disease characteristics

Variable		***N***	***%***
Client diagnosis	CVD	33	35.9
	Diabetes	44	47.8
	Both	15	16.3
Client's condition history	Acquired	43	46.7
	Present at birth	5	5.4
	Not applicable	44	47.8
Diabetes type	Type 1	11	12
	Type 2	33	35.9
	Not applicable	48	52.2
Time of diagnosis	Within the last year	11	12.0
	1-5 years ago	32	34.8
	5-10 years ago	29	31.5
	More than 10 years ago	20	21.7
Disease change status	Deteriorated	42	45.7
	Unchanged	21	22.8
	Improved	16	17.4
	Greatly improved	3	3.3
	Unknown	10	10.9
Seek services for chronic disease management	Yes	22	23.9
	No	70	76.1
Relationship between psychological problems and chronic disorder	Precede	40	43.5
	Follow	39	42.4
	Don't know	13	14.1
Chronic disorder impacted by psychological factors	Yes	71	77.2
	No	21	22.8
Stress	Work	41	44.6
	Family	56	60.9
	Relationship	36	39.1
	Financial	33	35.9
	Social	39	42.4

Comorbid chronic conditions	Yes, chronic disorder is *not* part of the presenting problem	5	5.4
	Yes, chronic disorder is part of the presenting problem	38	41.3
	No	40	43.5
	Unknown	9	9.8
	Neurological	24	26.1
	Mental	8	8.7
	Gross and fine motor	13	14.1
	Visual	2	2.2
	Auditory	1	1.1
	Speech	6	6.5
	Gastrointestinal	8	8.7
	Endocrinological	16	17.4
	Cardiological	10	10.9
	Respiratory	12	13.0
	Immunological	5	5.4
	Other	11	12.0
Chronic disorder daily functioning	None	1	1.1
	Little	14	15.2
	Moderate	51	55.4
	Severe	25	27.2
	Unknown	1	1.1
Cause of restriction in functioning	Chronic condition	14	15.2
	Presenting psychological problem	27	29.3
	Both	50	54.3
Impact on family	None	3	3.3
	Little	11	12.0
	Moderate	45	48.9
	Severe	26	28.3
	Unknown	7	7.6
Cause of impact on family	CVD/Diabetes	11	12.0
	Presenting psychological problem	32	34.8
	Both	46	50.0
Impact on work	None	5	5.4
	Little	18	19.6
	Moderate	22	23.9
	Severe	39	42.4
	Unknown	0	0

Cause of impact on work	CVD/Diabetes	15	16.3
	Presenting psychological problem	27	29.3
	Both	37	40.2
Focus of treatment: management of CVD/Diabetes	Always or most often	17	18.5
	Half the time	27	29.3
	Occasionally	36	39.1
	Rarely	12	13.0
Focus of treatment: Distress	Always or most often	31	14.1
	Half the time	13	14.1
	Occasionally	31	33.7
	Rarely	35	38.0
Frequency of collaboration with primary care provider	Regularly	26	28.3
	Once or twice	51	55.4
	Never	15	16.3
Collaboration with other providers	Yes	56	60.9
	No	36	39.1

Table 24

Survey 4: Frequencies for client service characteristics

Variable		***N***	***%***
Services provided	Assessment	34	37.0
	Treatment	70	76.1
	Consultation	21	22.8
Consulted with other health professionals	Family physician	65	47.4
	Dietician	21	22.8
	Occupational therapist	11	12.0
	Physiotherapist	12	13.0
	Medical specialist	24	26.1
	Psychiatrist	10	10.9
	Nurse	12	13.0
	Speech language pathologist	2	2.2
	Social worker	3	3.3
	Other psychologist	4	4.3
	Recreational therapist	2	2.2
	Other[a]	9	9.8
	No consultation	24	26.1
Receiving medication	Yes	45	48.9
	No	44	47.8
	Unknown	3	3.3
Type of medication	Anti-depressants	41	44.6
	Anxiolytics	13	14.1
	Antipsychotics	1	1.1
	Stimulants	0	0
	Hypnotics	3	3.3
	Mood stabilizers	3	3.3
	Unknown	0	0
	Other	2	2.2
Medication prescriber	Family physician/GP	27	60.0
	Psychiatrist	16	35.5
	Other specialist physician	0	0
	Nurse practitioner	0	0
	Other medical specialist	2	4.4
Other health services	Receiving services	51	55.4
	Psychiatrist	17	18.5
	General practitioner	34	37.0
	Nurse practitioner	17	18.5
	Social worker	6	6.5
	Psychologist	7	7.6

	Counsellor	3	3.3
	Speech language pathologist	2	2.2
	Occupational therapist	3	3.3
	Social service agencies	1	1.1
	Physiotherapist	8	8.7
	Medical specialist	23	25.0
	Other[b]	2	2.2
Referral source			
	Self	13	14.1
	Other client	3	3.3
	Legal system	1	1.1
	Family member	1	1.1
	School system	3	3.3
	Psychologist	3	3.3
	Psychiatrist	5	5.4
	General physician	28	30.4
	Other health care professional	17	18.5
	Insurance system	9	9.8
	Community service	2	2.2
	Social services	4	4.3
	Professional referral service	3	3.3
Family receiving services			
	Yes	18	19.6
	No	74	80.4
Referral to			
	Substance abuse treatment	2	2.2
	Other mental health treatment	11	12.0
	Psychological assessment	1	1.1
	Child and family services	0	0
	Social services	5	5.4
	Medication evaluation	14	15.2
	Other health[c]	21	22.8
	Support or self-help	11	12.0
	Nutrition	3	3.3
	No referrals made	49	53.3
Practice city setting			
	Private group practice	8	8.7
	Private individual practice	28	30.4
	Public health care organization	52	56.5
	Correctional facility	0	0
	Community program	2	2.2
	Child welfare agency	0	0
	School	2	2.2

[a]Other health professionals that were consulted included crisis services, a health professional in geriatrics, a kinesiologist, a pharmacist, a vocational counselor, and a school. Two participants indicated consulting the client's hospital records.

[b]Some clients received other health services from a geriatric professional and a recreational therapist.

[c]Other health referrals included rehab support services, specialty clinics, diagnostic testing, other health professionals (such as the general practitioner, psychiatrist, kinesiologist, naturopath), occupational therapy, and pastoral care.

Table 25

Survey 4: Frequencies for client psychosocial functioning

Variable		*N*	*%*
Risk factors	Parental mental disorder	24	26.1
	Physical disability	18	19.6
	Other mental health problems	35	38.0
	Marital problems	24	26.1
	Bereavement	12	13.0
	Mobility or frequent moves	7	7.6
	Exposure to traumatic events	29	31.5
	Physical/sexual abuse	15	16.3
	Removal from family	4	4.3
	Failure to graduate high school	12	13.0
	Obesity	3	3.3
	Other[a]	17	18.5
	Unknown	2	2.2
	No risk	13	14.1
Risk factor total	0	14	15.2
	1	28	30.4
	2	18	19.6
	3	14	15.2
	4 or more factors	18	19.6
Presenting problems	Mood problems	46	50.0
	Anxiety problems	39	42.2
	Personality disorders	8	8.7
	Intrapersonal issues	34	37.0
	Interpersonal issues	33	35.9
	Vocational issues	12	13.0
	Learning problems	5	5.4
	Cognitive functioning problems of adulthood	11	12.0
	Cognitive functioning problems of childhood	0	0
	Psychosocial problems of childhood	6	6.5
	Psychosis	0	0
	Managing health	42	45.6
	Adj. to life stressors	41	44.6
	Eating disorder	6	6.5
	Sleep problems	16	17.4
	Somatoform disorder	5	5.4
	Sexual abuse and trauma	7	7.6

	Sexual disorders	1	1.1
	Substance use/abuse	7	7.6
	Other[b]	6	6.5
Presenting problem total	1	16	17.4
	2	17	18.5
	3	20	21.7
	4	13	14.1
	5	12	13.0
	6 or more	14	15.2
Daily functioning	None	2	2.2
	Little	4	4.3
	Moderately	39	42.4
	Severely	44	47.8
Change status	Recovered	0	0
	Greatly improved	19	20.7
	Improved	53	57.6
	No change	9	9.8
	Deterioration	3	3.3
	Not applicable	8	8.7
DSM diagnosis	Yes	56	60.9
	No	24	26.1
	Evaluation incomplete	4	4.3
	Unknown	3	3.3
	Does not use DSM	5	5.4
Primary DSM diagnosis	None	24	26.1
	Mood/Anxiety	36	39.1
	Substance use	4	4.3
	Adjustment disorders	3	3.3
	Other[c]	10	10.9
Additional DSM diagnoses total	1	36	39.1
	2	15	16.3
	3	5	5.4
Substance abuse	Yes	13	14.1
	No	71	77.2
	Unknown	8	8.7
Suicidal thoughts	Yes	23	25.0
	No	68	73.9
	Unknown	1	1.1

Health status appraisal	Excellent	2	2.2
	Very good	8	8.7
	Good	23	25
	Fair	30	32.6
	Poor	22	23.9
	Unknown	7	7.6

[a]Other risk factors included adoption, issues with alcohol, bullying, dependent personality features, unhealthy family dynamics, adherence to medical plans, parental separation, relationship problems, severe brain injury, and verbal abuse.

[b]Other reasons for being brought to psychological services included episodes of confusion and unusual behaviour, obesity, gambling, social isolation, trauma, and weight loss.

[c]Other DSM disorders include childhood disorders, cognitive disorders, eating disorders, personality disorders, and disorders that fall into the "other" category in the DSM.

Table 26

Comparison of psychology practitioner demographics and practice characteristics across various American surveys

Variable		**Survey 1**	Garfield & Kurtz (1976)	Rachelson & Clance (1980)	Norcross & Wogan (1983)	Prochaska & Norcross (1983)	M-B & Elliott (1986)	APA Practice Net	Norcross et al. (2005)
Sample size		**538**	855	192	318	410	279		654
Mean age (*SD*)		**43.6 (10.2)**	46.8 (10.4)		43.1	45.6 (10.7)	47.8	50.8 (NA)	53.3 (10.3)
Degree	Doctorate	**58.9**	97%		85.5%	97.3%	88%	94.2%	99%
Gender	Female	**74.2**	16%	16%	23.9%	27%	30%	55%	34%
Degree specialization	Clinical psychology	**61.2**					72%	65.5%	90%
	Counseling psychology	**12.1**					18%	19.7%	4%
Years of experience	< 10 years	**59.5**	30.5%	60%		46.1%			
	10-19 years	**25.3**	36.0%						
	20+ years	**15.2**	33.5%						20%[a]
Private practice		**27.5**	23%			51.2%	61%		39%
Professional time	Individual psychotherapy	**41.3%**	25%		20.2 hrs	53.5%			34%
	Teaching	**5.9%**	13%		2.1 hrs	8.8%			10%
	Assessment	**28.5%**	9.8%			10.8%			15%
	Research	**5.5%**	7%		1.1 hrs	3.9%			14%

[a]Norcross et al. (2005) only reported a percentage of psychologists who had been in practice greater than 30 years

Table 27

Comparison of psychology practitioner demographics and practice characteristics across various Canadian surveys

Variable		**Survey 1**	Cohen et al. (2008) Pilot report	Hunsley & Lefebvre (1990)	ASPPB data (2009)
Sample size		**538**	80	88	189
Mean age (*SD*)		**43.6 (10.2)**	48 (10.0)	44.9 (7.5)	
Degree	Doctorate	**58.9%**	81.3%	73.8%	65%
Gender	Female	**74.2%**	68.8%	21.6%	70%
Degree specialization	Clinical psychology	**61.2%**	47.5%		
	Counseling psychology	**12.1%**	11.2%		
Years of experience	< 10 years	**59.5%**	52.5%		60%
	10-19 years	**25.3%**	17.5%		
	20+ years	**15.2%**	30%		40%
Private practice		**41.1%**	27.5%	33%	25%
Professional time	Individual psychotherapy	**41.3%**	36.6%	45.1%	
	Teaching	**5.9%**	7.7%	6.1%	
	Assessment	**28.5%**	30.5%	15.9%	
	Research	**5.5%**	4.6%	4.4%	

Table 28

Comparison of psychology practitioners' client demographics and psychosocial functioning

Variable		Survey 2		Cohen et al. (2008) Pilot report	APA's PracticeNet
		Wave 1	**Wave 2**		
Sample size		**140**	**140**	58	NA
Client age		**32.3 (16.7)**	**33.5 (16.3)**	32.4 (16.6)	38.5 (NA)
Gender	Female	**65%**	**54%**	48%	60%
Ethnicity	White	**85%**	**87%**	84.5%	80%
Marital status	Married	**21.4%**	**25.7%**	25.9%	25%
	Never married	**45.7%**	**42.9%**	51.7%	53%
	Divorced	**6.4%**	**7.1%**	10.3%	15%
Presenting problems	Mood problem	**44.3%**	**31.4%**	37.9%	35-46%
	Anxiety problem	**37.1%**	**34.3%**	43.1%	16-19%
	Substance use problem	**7.1%**	**4.3%**	12.1%	25%
	Adjustment problem	**32.9%**	**30.7%**	25.9%	12-20%
	Personality	**10.7%**	**9.3%**	20.7%	13-16%
DSM diagnosis	Yes	**62.1%**	**51.4%**	67.2%	86-90%
Referral source	Self	**22.1%**	**25%**	12.1%	26.1%
	Other professional	**43.6%**	**47.1%**	55.2%	52.2%
Receiving medication		**42.1%**	**42.1%**	43.1%	54.2%
Medication prescriber	Psychiatrist	**52.2%**	**39.0%**	60%	70%
	Physician	**40.7%**	**57.6%**	36%	24%

Note. The data from APA's PracticeNet was an aggregation of all surveys that they had conducted between 2001 and 2003.

Appendix A

Survey 1 Questionnaire

1. **What is your age?** _____

2. **What is your gender?**

   □ Female
   □ Male

3. **Degree upon which your registration is based**

   □ Masters
   □ Doctorate

4. **Area of Psychology in which you obtained your highest degree**

   □ Clinical Psychology
   □ Counselling Psychology
   □ Clinical Neuropsychology
   □ School Psychology
   □ Other (*please specify*) _____

5. **What are the first 3 digits of your workplace postal code?**

_____

6. **Length of time for which you have been registered for the autonomous practice of Psychology**

   □ 0-5 years
   □ 6-10 years
   □ 11-15 years
   □ 16-20 years
   □ 20 + years

7. **What percentage of your professional time is spent in: (*Please ensure that your total equals 100%*)**

   □ Assessment
   □ Intervention
   □ Consultation
   □ Teaching

□ Research
□ Other _____

8. Is your practice activity best described as:

□ Exclusively within a publicly funded institution (e.g., hospital, school, correctional facility)
□ Primarily within a publicly funded institution with some part-time private practice
□ Equally public and private practice
□ Primarily private practice with some service within a publicly funded institution
□ Exclusively private practice

9. Are you in practice:

□ Full-time (35 hours or more per week)
□ Half-time
□ Less than half time

10. On average, how many clients do you provide mental health services to per week?

_____

11. Type of services offered directly to clients[14]: (*check all that apply*)

□ Assessment which includes psychometric testing of mood, behaviour, or personality
□ Assessment which includes psychometric testing of intellectual functioning
□ Neuropsychological assessment
□ Vocational Assessment
□ Individual Therapy
□ Family Therapy
□ Couple Therapy
□ Group Therapy
□ Organizational or Program consultation
□ Clinical / counseling consultation

12. Which approach best describes your theoretical orientation? (*check all that apply*)

□ Cognitive Behavioural
□ Interpersonal
□ Psychodynamic
□ Humanistic / Experiential
□ Family Systems
□ Other _____

[14] The phrase "directly to clients" was added for clarity.

13. Do you offer services to: (*check all that apply*)

□ Children under 12
□ Adolescents (12 to 17)
□ Young adults (18-25)
□ Adults (26-59)
□ Older adults (60+)

14. Do you provide consultation to: (*check all that apply*)

□ Health care organizations or teams
□ Corporate sector
□ Educational institutions
□ Correctional institutions
□ Legal System
□ Community agencies
□ Other (*please specify*) _____
□ Do not provide consultation services

15. The types of presenting problems for which you provide services include: (*check all that apply*)

□ Mood disorders
□ Anxiety disorders
□ Personality disorders
□ Intrapersonal issues (e.g., self esteem, self confidence, anger, conduct)
□ Interpersonal issues: Relationship conflicts
□ Vocational issues
□ Learning problems
□ Cognitive functioning problems of adulthood (other than learning)
□ Cognitive functioning problems of childhood (other than learning)
□ Psychological and psychosocial problems of childhood
□ Psychosis
□ Managing health, injury, and illness
□ Adjustment to life stressors (work problem, marital problem, bereavement)
□ Eating disorders
□ Sleep disorders
□ Somatoform disorders (e.g., chronic pain)
□ Sexual abuse and trauma
□ Sexual disorders
□ Substance use and/or abuse disorders
□ Other (*please specify*) _____

16. What percentage of your clients: (*Please ensure that your total equals 100%*)

□ Pay for services directly, with no extended health insurance reimbursement
□ Pay for services directly, all or most of which is reimbursed by extended health insurance
□ Receive services paid for directly by workers' compensation board (e.g., WSIB)
□ Receive services paid for directly by other insurer or program (e.g., motor vehicle accident insurance)
□ Receive services paid for directly by employer through an employee assistance programme
□ Receive services within a publicly funded institution (e.g., hospital, school, correctional facility)
□ Receive pro-bono services

17. Participants in this survey are eligible for a $75 honorarium for completing this survey. Please direct my honorarium as follows:

□ To me or my practice
□ To CPA Foundation
□ To another charity or recipient[15]. Please specify: _____

18. Address for honorarium cheque:

Name:_____
Address_____
City:_____
Province:_____
Postal Code:_____

19. For the next survey, you may[16] be contacted at a random time during your practice hours. In a typical work week, what days do you see clients?

□ Sunday
□ Monday
□ Tuesday
□ Wednesday

[15] The pilot survey offered a $50 honorarium. Previously, participants had the option of allocating their honorarium to "CPA advocacy." This was changed to the "CPA Foundation" (an initiative to provide charitable gifts that can meet public needs for psychology-related information, services, and programs) to conform with the requirements of the agreement with the Public Health Agency of Canada. The options also previously listed "Recipient" only as the third option; it was broadened to include "another charity."

[16] Every Survey 1 participant in the pilot project was contacted to complete Survey 2. This was not feasible for the current project—over 500 participants completed Survey 1 with 150 participants budgeted to complete Survey 2—therefore the wording was adjusted in this question to account for the possibility that most participants would not be asked to complete the following survey.

□ Thursday
□ Friday
□ Saturday

20. On a typical day, what hours do you see clients? (use the format xx:xx in 24 hour time).

Start time of first session:_____
End time of the last session:_____

21. Do you have any questions or comments about this survey? Your feedback is greatly appreciated.[17]

_____
_____
_____
_____

[17] This question was added to gather participants' feedback on their experiences with the survey.

APPENDIX B

Survey 2 Questionnaire

1. **Client's Gender:**

□ Male
□ Female
□ Transgender (male to female)
□ Transgender (female to male)

2. **Client's Age: _____**

3. **Including today's session, how many sessions have you had with this client? _____**

4. **How many more sessions do you anticipate providing to this client? _____**

5. **Does the client have any early or identifiable risk factors for mental health problems? (*Check all that apply*)**

□ Parental mental disorder and/or family history of mental health problem
□ Marital problems
□ Bereavement during childhood
□ Mobility (e.g., frequent moves)
□ Failure to graduate from high school
□ Physical and/or sexual abuse as a child
□ Removal from family by child welfare authorities
□ Unknown
□ No risk factors
□ Other (*please specify*) _____

6. **Is the client:**

□ White
□ Chinese
□ South Asian (e.g., East Indian, Pakistan, Sri Lankan, etc.)
□ Black
□ Filipino
□ Latin American
□ Southeast Asian (e.g. Cambodian, Indonesian, Laotian, Vietnamese, etc.)
□ Arab
□ West Asian (e.g., Afghan, Iranian, etc.)

□ Japanese
□ Korean
□ Aboriginal Peoples of North America (North American Indian, Métis, Inuit)
□ Other (*please specify*)_____

7. Client's language spoken at home:

□ English
□ French
□ Other (*please specify*) _____

8. Language in which service is provided to client:

□ English
□ French
□ Other (*please specify*) _____

9.1. Was the client born in Canada or did the client move to Canada?

□ Born in Canada
□ Not born in Canada, and has lived here for _____ years

9.2. Under what status did the client move to Canada?

□ Immigrant
□ Refugee
□ Unknown

10. Marital Status:

□ Married
□ Common Law
□ Widowed
□ Separated
□ Divorced
□ Single and never married
□ Unknown

11. Sexual orientation as reported by the client:

□ Heterosexual
□ Gay/lesbian
□ Bisexual
□ Unknown

12. Client's living arrangements:

□ Private residence
□ Residential care
□ Institutional setting
□ Homeless or shelter
□ Other (*please specify*) _____

13. For clients 17 years of age or older, please indicate their educational attainment[18]:

□ Grade 8 or lower
□ Some high school
□ High school diploma
□ College certificate or diploma
□ Trades certificate or diploma
□ Some undergraduate
□ Undergraduate degree
□ Graduate or professional degree
□ Unknown
□ Not applicable

14. If your client is over the age of 16, are they a student?

□ Full-time
□ Part-time
□ No
□ Not applicable

15.1. Is the client employed?

□ Full-time
□ Part-time
□ No
□ No, but on disability[19]
□ Unknown
□ Not applicable

[18] The wording of this question was adjusted for clarity and to avoid confounding the results of younger clients who are obligated to attend school and who would clearly not have attained higher than a high school diploma. The same explanation applies to question 14.
[19] This response option was added to be inclusive of those who cannot work but are receiving government compensation.

15.2. What is your client's occupation?

□ Management
□ Professional (e.g., lawyer, accountant, physician, nurse, psychologist)
□ Technologist, technician or technical occupation
□ Administrative, financial or clerical
□ Sales or service
□ Trades, transport or equipment operator
□ Occupation in farming, forestry, fishing or mining
□ Occupation in processing, manufacturing or utilities
□ Other (*please specify*) _____

16. Which best describes your client's presenting problem (*check as many that apply*):

□ Mood disorders
□ Anxiety disorders
□ Personality disorders
□ Intrapersonal issues (e.g., self esteem, self confidence, anger, conduct)
□ Interpersonal issues / Relationship conflicts
□ Vocational issues
□ Learning problems
□ Cognitive functioning problems of adulthood (other than learning)
□ Cognitive functioning problems of childhood (other than learning)
□ Psychological and psychosocial problems of childhood
□ Psychosis
□ Managing health, injury, and illness
□ Adjustment to life stressors (e.g., work problem, marital problem, bereavement)
□ Eating disorders
□ Sleep disorders
□ Somatoform disorders (e.g., chronic pain)
□ Sexual abuse and trauma
□ Sexual disorders
□ Substance use and/or abuse disorders
□ Other (*please specify*)_____

17. Please rate the extent to which you believe, prior to starting treatment with you, the client's daily functioning was negatively affected by his or her presenting problem(s):

□ None
□ Little
□ Moderately
□ Severely
□ Unknown

18. Thus far in your services to this client how much change is there in his or her presenting problem(s)?

□ Recovered
□ Greatly improved
□ Improved
□ No change
□ Deterioration

19.1. Is this client receiving another health service for the same presenting problem?

□ Yes
□ No

19.2. From whom are they receiving these services?

□ Psychiatrist
□ Family practitioner or general physician
□ Nurse practitioner
□ Psychologist
□ Counsellor
□ Educational professional[20]
□ Other (*please specify*)_____

20. Does the client report problems related to a chronic disease, disorder or condition? (C*heck all that apply*)

□ Neurological functions
□ Mental functions
□ Gross and fine motor functions
□ Visual functions
□ Auditory functions
□ Speech and language functions
□ Gastrointestinal functions
□ Endocrinological functions
□ Cardiological functions
□ Respiratory functions
□ Immunological functions
□ Other (*please specify*) _____

[20] The wording of this response option was adjusted to be more inclusive of all educational professionals, rather than only teachers.

□ Unknown
□ No Chronic Disorder

21. Please rate the extent to which you believe the client's daily functioning is restricted by his or her chronic disease(s), disorder(s) or conditions:

□ None
□ Little
□ Moderate
□ Severe
□ Unknown

22. Client's appraisal of own health status (if the client is under 14, please enter the caregiver's appraisal of health status):

□ Excellent
□ Very Good
□ Good
□ Fair
□ Poor
□ Unknown

23.1 Does your client have any DSM-IV-TR diagnoses?

□ Yes
□ No
□ Diagnostic evaluation not yet completed
□ Unknown

23.2 Enter the names of diagnoses for this client: (Click here for DSM-IV-TR Diagnostic Names)

Primary Diagnosis:_____
Additional Diagnosis:_____
Additional Diagnosis:_____
Additional Diagnosis:_____

24. Does your client have a substance use problem or disorder which is not the presenting problem but is concomitant with it?

□ Yes
□ No
□ Unknown

25. In what type of setting or organization did you provide the service to this client?

□ Private practice setting – group practice
□ Private practice setting – individual practice
□ Public health care organization (e.g. hospital, clinic)
□ Correctional facility
□ Community or street outreach programme
□ School
□ University or college

26. How did the client or the client's caretaker pay for the service? The service was:

□ Paid for services directly, with no extended health insurance reimbursement
□ Pay for services directly, all or most of which is reimbursed by extended health insurance
□ Paid for directly by workers' compensation board (e.g., WSIB)
□ Paid for directly by other insurer or program (e.g., motor vehicle accident insurance)
□ Paid for directly by employer through an employee assistance programme
□ Received services within a publicly funded institution (e.g., hospital, school, correctional facility)
□ Received pro-bono services
□ Other (*please specify*):_____

27. What service(s) did you provide to the client during this session? (*Check all that apply*)

□ Assessment which includes psychometric testing of mood, behaviour, or personality
□ Assessment which includes psychometric testing of intellectual functioning
□ Neuropsychological assessment
□ Vocational assessment
□ Cognitive behavioural therapy
□ Interpersonal therapy
□ Psychodynamic therapy
□ Humanistic/experiential therapy
□ Family systems therapy
□ Other (*please specify*)_____

28. In this session, who was included in the delivery of the service?

□ Client alone
□ Client with significant other (e.g., partner, spouse, roommate)
□ Client with family member(s)

□ Client with other caregiver(s)
□ Client with other service provider(s)
□ Client with other (please specify)_____[21]

29. Service setting is in:

□ Major urban centre
□ Suburb of major urban centre
□ Smaller city or town
□ Rural setting

30. How was the client referred to you?

□ Self
□ Other client
□ Legal system
□ Family member
□ School system
□ Psychologist
□ Psychiatrist
□ Physician
□ Other health care professional
□ Insurance system

31.1. Is the client receiving psychotropic medication?

□ Yes
□ No
□ Unknown

31.2. If yes, what medication(s)? (*Check all that apply*)

□ Antidepressant
□ Anxiolytic
□ Antipsychotic
□ Stimulant
□ Hypnotic
□ Mood Stabilizer
□ Unknown

[21] This question was added to ensure a more accurate description of who was included in the delivery of the psychological service.

31.3. If yes, this medication is prescribed to the client by:

□ Family physician or general practitioner
□ Psychiatrist
□ Nurse-practitioner
□ Other health specialist

32. Does your client take medication for a health problem which is related to the presenting problem? (e.g., seeing you for help in managing chronic pain and patient takes pain medication)

□ Yes
□ No
□ Unknown

33. Does your client take medication for another health problem unrelated to the presenting problem? (e.g., seeing you for depression and takes antihypertensive medication)

□ Yes
□ No
□ Unknown

34. Have you made any referrals for this client for: (*check all that apply*)

□ Substance abuse treatment
□ Other mental health treatment
□ Psychological assessment (neuropsychological, educational, vocational)
□ Child and family services
□ Social services other than child and family services
□ Medication evaluation
□ Other health
□ Support or self help
□ No referrals made

APPENDIX C

Regulatory body recruitment email

Dear Regulators,

Summer is nearing its end and times are getting busier…Busier times include CPA's commencement of the following phases of the Mental Health Surveillance Project (funded by the Public Health Agency of Canada)—a project that will enable the collection of information about the practice and demographic characteristics of Canadian psychologist practitioners, as well as demographic and clinical characteristics of their clients.

This project intends to enhance what is known about the mental health services in Canada by specifically targeting the activities of psychologists. We will expand data sources for chronic disease surveillance and thereby improving the planning, coordination, and evaluation of chronic disease systems to better serve and protect the interests of Canadians.

Karen Cohen, CPA's Chief Executive officer, was previously in contact with you to enlist your help with passing information about this project along to your registrants. Some provinces have already passed along our message and their help is tremendously appreciated! If you have not already done so and are interested in taking part in this initiative, please pass on our message to your registrants (see below).

Please feel free to contact me should you have any questions or concerns about my request. If you are not able to circulate this message electronically but would be willing to have us send the message by surface mail, please let me know and we will arrange to do so.

Considering that the regulatory bodies of Canada have the most comprehensive lists of registered psychologist practitioners in the country, your help is greatly needed and appreciated! As the Project Manager for this endeavour, I would very much like to help you disseminate our request. If you know of any other ways I can help get this message out to psychologists, then please let me know. I am readily available through email or phone at my coordinates below.

Thank you for your every consideration. It is truly a project that will contribute in a meaningful way to meeting the mental health needs of the Canadian public.

With much thanks and appreciation,

Ashley Ronson
Project Manager of the Mental Health Surveillance Project
MESSAGE TO SEND TO COLLEGE REGISTRANTS

Greetings from CPA. You may recall some time back you received an email from CPA with a request for your participation in **CPA's development of an electronic practice network.** The intent of the network **was to enable us to collect information about the practice and demographic characteristics of Canadian psychologist practitioners as well as demographic and clinical characteristics of the clients they assess and treat**. As you may recall, this initiative has been funded by the Public Health Agency of Canada (PHAC) out of a recognition that, collecting information on the activities of psychologists is critical to understanding Canada's mental health needs and services.

The last time we communicated with you, we were looking for psychologist practitioners to participate in the piloting of a web-based survey of psychologists' activities. **CPA is pleased to have entered into another contribution agreement with PHAC that will enable us distribute the reviewed and revised survey more broadly among psychologist practitioners and will enable us to develop alternate forms of the survey – alternate forms that will target different kinds of psychological practice activity.**

We would like to recruit 500 psychologists, Canada-wide, to participate. These 500 will be asked to complete from one to 4 web-based surveys over the course of two years. The surveys will ask them questions about characteristics of their practice (e.g. area of specialty, what kinds of problems and patient groups they work with) as well as questions about the clinical and demographic characteristics of the clients with whom they work. **Each survey will take up to 45 minutes to complete and we will remunerate the psychologist participant at the rate of $75 per survey.**

If you can spare some time to contribute to this very worthwhile project, please contact us at practicenetwork@cpa.ca to register you interest and/or to get more information. This is an important opportunity for Canadian psychology to contribute to what is known about the mental health demands and utilization of Canadians.

With many thanks and best wishes,

Ashley Ronson

APPENDIX D

Survey 3 Questionnaire

This survey is intended for psychologist practitioners providing services to child and youth clients younger than 18 years of age. Think about the client to whom you provided service at the randomly selected time (or the client you saw nearest to that randomly selected time) and answer the following questions.

1. **Client's Gender:**

   ☐ Male
   ☐ Female
   ☐ Transgender

2. **Client's Age: _____**

3. **Ethnicity as identified by the client and/or the parent(s) or caregiver(s):**

   ☐ White
   ☐ Chinese
   ☐ Black
   ☐ Filipino
   ☐ Latin American
   ☐ South Asian (e.g., East Indian, Pakistan, Sri Lankan, etc.)
   ☐ Southeast Asian (e.g. Cambodian, Indonesian, Laotian, Vietnamese, etc.)
   ☐ West Asian (e.g., Afghan, Iranian, etc.)
   ☐ Arab
   ☐ Japanese
   ☐ Korean
   ☐ Aboriginal Peoples of North America (North American Indian, Métis, Inuit)
   ☐ Other (*please specify*):_____

4. **Client's language spoken at home:**

   ☐ English
   ☐ French
   ☐ Other (*please specify*): _____

5.1. Was the client born in Canada or did the client move to Canada?

- ☐ Born in Canada (Skip to 6)
- ☐ Not born in Canada, and has lived here for _____ years

5.2. Under what status did the client move to Canada?

- ☐ Immigrant
- ☐ Refugee
- ☐ Unknown

6. Sexual orientation as reported by the identified client, if known:

- ☐ Heterosexual
- ☐ Gay/lesbian
- ☐ Bisexual
- ☐ Unknown

7. What is the client's current family structure?

- ☐ Two married parents
- ☐ Two parents living common law
- ☐ Single parent
- ☐ Blended family (e.g. step-parents, step-siblings)
- ☐ Extended family as caregivers (e.g., grandparents, uncles, aunts, etc.)
- ☐ Adult siblings as caregivers
- ☐ Other (*please specify*): _____

8. Client's living arrangements:

- ☐ Single residence
- ☐ Multiple residences
- ☐ Foster care
- ☐ Group home
- ☐ Homeless or shelter
- ☐ Other (*please specify*) _____

9. 1. Does the identified client attend school regularly?

- ☐ Yes
- ☐ No (Skip to 12)
- ☐ Unknown (Skip to 12)
- ☐ Not applicable, client is not school-aged (Skip to 13)

9.2. **What school grade is the identified client in? _____**

10. What type of school does the identified client attend?

- ☐ Publicly funded school
- ☐ Privately funded school
- ☐ Client is home-schooled

11. Does the client attend special programs or classes for any of the following? (*Check all that apply)*

- ☐ Learning disorder
- ☐ Developmental disability
- ☐ Behaviour
- ☐ Slow learner
- ☐ Gifted
- ☐ Other (*please specify*): _____
- ☐ None

12. Has the identified client ever been held back a grade?

- ☐ Yes
- ☐ No
- ☐ Unknown

13. (1) Does the client have paid work in any capacity?

- ☐ Full-time
- ☐ Part-time
- ☐ No (Skip to 14)
- ☐ Unknown (Skip to 14)
- ☐ Not applicable (Skip to 14)

13. (2) If the client works, what does s/he do?

_____
_____

14. Language in which service is provided to client:

- ☐ English
- ☐ French
- ☐ Other (*please specify*): _____

15. What service(s) did you provide to the client during this session? (*Check all that apply*)

- ☐ Assessment
- ☐ Treatment
- ☐ Consultation

16. Please specify and briefly describe the type of assessment, therapy, and/or consultation you provided:

_____
_____
_____

17. Including today's session, how many THERAPY sessions have you had related to the identified client? (Include sessions with parents, teachers, etc.) _____

18. Including today's session, how many ASSESSMENT sessions have you had related to the identified client? (Include sessions with parents, teachers, etc.)
_____

19. Including today's session, how many CONSULTATION sessions have you had related to the identified client? (Include sessions with parents, teachers, etc.)
_____

20. How many more sessions of all types do you anticipate providing to or about the identified client? (Include sessions with parents, teachers, etc.)
_____

21. Over all sessions to date, did you consult anyone from the school system in relation to the treatment of the identified client? *(Check all that apply)*

- ☐ Teacher(s)
- ☐ Educational Assistant
- ☐ Other psychologist
- ☐ Principal or Vice-principal
- ☐ Other (*please specify*): _____
- ☐ No
- ☐ Not applicable, client is not school-aged

22. Over all sessions to date, who are you seeing connected with the treatment of the identified client (apart from the client his/herself)? *(Check all that apply)*

- ☐ Parent(s)
- ☐ Other family member(s)
- ☐ Family physician
- ☐ Other (*please specify)*: _____

23. (1) In this session, did you *only* see the identified client?

- ☐ Yes
- ☐ No (Skip to 24)

23.2. In this session, who else was included in the delivery of the service? (*Check all that apply)*

- ☐ Parent(s)
- ☐ Other family member(s) other than caregivers
- ☐ Other caregiver(s)
- ☐ Other service provider(s)
- ☐ Other (*please specify*):_____

24. Does the client have any identifiable risk factors for mental health problems? (*Check all that apply*)

- ☐ Parental mental disorder and/or family history of mental health problem
- ☐ Physical disability and/or long-term illness in the family
- ☐ Marital problems in the family (e.g., separation, divorce, family instability)
- ☐ Bereavement
- ☐ Mobility (e.g., frequent moves)
- ☐ Physical and/or sexual abuse
- ☐ Removal from family by child welfare authorities; multiple placements
- ☐ Attachment difficulties
- ☐ Bullying
- ☐ Aggression and/or anger
- ☐ Unusual fears, phobias
- ☐ Academic performance problems
- ☐ School avoidance, truancy
- ☐ Pre-term birth
- ☐ Congenital health problems (including genetic conditions)
- ☐ Other health problems
- ☐ Exposure to traumatic events
- ☐ Brain injury (developmental or acquired)
- ☐ Other (*please specify*): _____
- ☐ Unknown
- ☐ No risk factors

25. What are the reasons for which the client is seeking services or was brought for services? (*Check as many that apply*):

- ☐ Mood problems or disorders
- ☐ Anxiety problems or disorders
- ☐ Behaviour problems or disorders
- ☐ Intrapersonal issues (e.g., self-esteem, self-confidence, anger, shyness)
- ☐ Attentional problems or disorders (e.g., ADD, ADHD)
- ☐ Learning problems or disorders
- ☐ Gifted assessment
- ☐ School readiness
- ☐ Attachment problems or disorders
- ☐ Cognitive problems other than learning (including developmental delays)
- ☐ Autism spectrum disorders
- ☐ Self-harm behaviours (e.g., suicidal gestures or thoughts, self-injury)
- ☐ Psychosis
- ☐ Managing health, injury, and illness
- ☐ Adjustment to life stressors
- ☐ Parental separation or divorce
- ☐ Adoption consultation
- ☐ Eating disorders
- ☐ Sleep problems or disorders
- ☐ Somatoform disorders (e.g., chronic pain)
- ☐ Sexual abuse and trauma
- ☐ Physical abuse and trauma
- ☐ Psychosexual problems
- ☐ Substance use and/or abuse disorders
- ☐ Other (*please specify*):_____

26. (1) Does your client have any DSM-IV-TR diagnoses?

- ☐ Yes (Skip to 26.3)
- ☐ No (Skip to 27)
- ☐ Diagnostic evaluation not yet completed (Skip to 27)
- ☐ Unknown (Skip to 27)
- ☐ I do not use the DSM (Skip to 26.2)

26. (2) If you do not use the DSM, do you make diagnoses using a different classification? (e.g., ICD-10)

☐ Yes, please specify: _____
☐ No

26. (3) Enter the names of the client's diagnoses: (Click here for DSM-IV-TR Diagnostic Names)

Primary Diagnosis:_____
Additional Diagnosis:_____
Additional Diagnosis:_____
Additional Diagnosis:_____

27. Please rate the extent to which you believe, prior to seeing you, the client's daily functioning was negatively affected by his or her presenting problem(s):

☐ None
☐ Little
☐ Moderately
☐ Severely
☐ Unknown

28. Thus far in your work with this client how much change has there been in his or her presenting problem(s)?

☐ Recovered
☐ Greatly improved
☐ Improved
☐ No change
☐ Deterioration
☐ Not applicable

29. (1) Does the client report problems *related* to a chronic disease, disorder or condition, but that is *not* the presenting problem?

☐ Yes
☐ No (Skip to 32)
☐ Unknown (Skip to 32)

29.2. What functions are involved in the client's chronic disorder(s)? (*Check all that apply)*

- ☐ Neurological functions
- ☐ Mental functions
- ☐ Gross and fine motor functions
- ☐ Visual functions
- ☐ Auditory functions
- ☐ Speech and language functions
- ☐ Gastrointestinal functions
- ☐ Endocrinological functions
- ☐ Cardiological functions
- ☐ Respiratory functions
- ☐ Immunological functions
- ☐ Other (*please specify*) _____

30. Please rate the extent to which you believe the client's daily functioning is restricted by his or her chronic disease(s), disorder(s) or conditions:

- ☐ None
- ☐ Little
- ☐ Moderate
- ☐ Severe
- ☐ Unknown

31. Please rate the extent to which you believe the client's chronic disease(s), disorder(s), or condition(s) impacts the family:

- ☐ None
- ☐ Little
- ☐ Moderate
- ☐ Severe
- ☐ Unknown

32. Client's or parents' appraisal of client's health status:

- ☐ Excellent
- ☐ Very Good
- ☐ Good
- ☐ Fair

☐ Poor
☐ Unknown

33. Does your client have a substance use problem or disorder which is not the presenting problem but is concomitant with it?

☐ Yes
☐ No
☐ Unknown

34.1. Is the client receiving psychotropic medication for a *mental health problem*?

☐ Yes
☐ No (skip to 35)
☐ Unknown (skip to 35)

34.2. If yes, what medication(s)? (*Check all that apply*)

☐ Antidepressant
☐ Anxiolytic
☐ Antipsychotic
☐ Stimulant
☐ Hypnotic
☐ Mood Stabilizer
☐ Unknown
☐ Other (*please specify)*: _____

34.3. If yes, this medication is prescribed to the client by:

☐ Family physician or general practitioner
☐ Paediatrician
☐ Other specialist physician
☐ Psychiatrist
☐ Nurse-practitioner
☐ Other health specialist

35. Does your client take medication for a *health problem* which is related to the presenting problem? (e.g., receiving services related to the diagnosis of ADHD and taking Ritalin)

- ☐ Yes
- ☐ No
- ☐ Unknown

36. Does your client take medication for another health problem *unrelated* to the presenting problem? (e.g., receiving services related to a learning problem but the client also takes insulin for diabetes)

- ☐ Yes
- ☐ No
- ☐ Unknown

37.1. Is this client receiving services from another regulated healthcare provider for the same presenting problem?

- ☐ Yes
- ☐ No (Skip to 38.1)

37.2. From whom are they receiving these services?

- ☐ Psychiatrist
- ☐ Family practitioner or general physician
- ☐ Nurse practitioner
- ☐ Psychologist
- ☐ Counsellor
- ☐ Social worker
- ☐ Speech language pathologist
- ☐ Occupational therapist
- ☐ Social service agencies
- ☐ Physiotherapist
- ☐ Other (*please specify*):_____

38.1. Is the client or caregiver receiving or participating in community services or support related to the client's presenting problem?

- ☐ Yes
- ☐ No (Skip to 39)

38.2. What type of community service or support?

- ☐ Big Brother/Big Sister
- ☐ Therapy camps
- ☐ Support groups (e.g., bereavement, divorce)
- ☐ Social skills
- ☐ Assertive Community Treatment team
- ☐ Parenting training
- ☐ Community resource or health centre
- ☐ Other (*please specify*): _____

39. How was the client referred to you?

- ☐ Self
- ☐ Parent(s)
- ☐ Other client
- ☐ Legal system
- ☐ Family member
- ☐ School system
- ☐ Psychologist
- ☐ Psychiatrist
- ☐ Physician
- ☐ Other health care professional
- ☐ Insurance system
- ☐ Community service
- ☐ Social services (e.g., CAS)
- ☐ Professional referral service

40. Have you made any referrals for this client or related to this client for: (*check all that apply*)

- ☐ Substance abuse
- ☐ Other mental health
- ☐ Psychological assessment (neuropsychological, educational, vocational)
- ☐ Educational (e.g., tutoring)
- ☐ Parent training or support
- ☐ Activities of daily living
- ☐ Housing
- ☐ Child and family services
- ☐ Social services other than child and family services

- ☐ Medication
- ☐ Other health (e.g., speech language, occupational therapy)
- ☐ Support or self help
- ☐ Other (*please specify*): _____
- ☐ No referrals made

41. **Service setting is in:**

- ☐ Major urban centre
- ☐ Suburb of major urban centre
- ☐ Smaller city or town
- ☐ Rural setting

42. Client resides in:

- ☐ Major urban centre
- ☐ Suburb of major urban centre
- ☐ Smaller city or town
- ☐ Rural setting

43. **In what type of setting or organization did you provide the service to this client?**

- ☐ Private practice setting – group practice
- ☐ Private practice setting – individual practice
- ☐ Public health care organization (e.g. hospital, clinic)
- ☐ Detention centre
- ☐ Community program
- ☐ Child welfare agency
- ☐ School

44. How did the client or the client's caregiver pay for the service?

- ☐ Paid for services directly, with no extended health insurance reimbursement
- ☐ Paid for services directly, some of which is reimbursed by extended health insurance
- ☐ Paid for services directly, all or most of which is reimbursed by extended health insurance
- ☐ Received services within a publicly funded institution (e.g., hospital, school, correctional facility)
- ☐ Received services paid in part by a publicly funded agency
- ☐ Received services paid in whole by a publicly funded agency

☐ Received pro-bono services
☐ Other (*please specify*):_____

45. Briefly, what are the top 3 factors that challenged you in providing or ensuring the best possible service for this particular client? (e.g., lack of specialized services in the community, lack of funding for a needed service, lack of collaboration among partners in care, lack of support from parents or others involved in child's care)

_____
_____

APPENDIX E

Recruitment email for Survey 3

Subject: CPA Practice Network Project: Survey 3 recruitment

Greetings from CPA,

You may recall some time back that you received an email from CPA with a request for your participation in **CPA's electronic practice network**. The intent of the network was to **enable us to collect information about the practice and demographic characteristics of Canadian psychologist practitioners as well as the demographic and clinical characteristics of the clients they assess and treat.** As you may recall, this initiative has been funded by the Public Health Agency of Canada (PHAC) out of a recognition that, collecting information on the activities of psychologists is critical to understanding Canada's mental health needs and services.

The last time we communicated with you, we were looking for all types of psychologist practitioners to participate in web-based surveys of psychologists' activities. **CPA is now looking to recruit practitioners who provide services to children and/or youth**. Previous surveys have not adequately captured the nature and scope of practice for child and adolescent psychologists.

We are looking to recruit 150 psychologists, Canada-wide, to participate. The survey targets the demographic and clinical characteristics specific to child and adolescent clients. You are eligible to participate if you are currently providing services (e.g., therapy, assessment, intervention) to children and adolescents 17 years old and younger (including sessions with parents, caretakers, teachers, etc.). It will take up to 45 minutes to respond to the survey and we will remunerate participants $75 for full completion of the survey.

Please contact us at practicenetwork@cpa.ca to register your interest and/or to get more information. This is an opportunity for Canadian psychology to contribute to what is known about the mental health demands and utilization of Canadians.

On behalf of Karen Cohen, CPA Chief Executive Officer, many thanks and best wishes!

Ashley Ronson

APPENDIX F

Survey 3 Eligibility Survey information email

Subject: CPA Practice Network: Eligibility Survey invitation

Greetings,

Thank you for your interest in participating with this innovating research project regarding the demographic and clinical characteristics of children and adolescent clients. As part of the contribution agreement supported by the Public Health Agency of Canada, this project intends to supplement current knowledge of the mental health of Canadians and the services provided to them.

For more information on the full scope of the project and results from the first two phases, please visit our web page: www.cpa.ca/surveillanceandsurveys

Previous surveys did not adequately capture the scope of practice and clientele for psychologists who provide services to children and adolescents. Recognizing this gap, CPA has developed a survey that targets child- and adolescent-focussed demographic information, psychosocial functioning, and service characteristics. One hundred and fifty psychologist practitioners will complete this survey, which will require up to 45 minutes of time, and will be remunerated $75 for participation.

Similar to our Survey 2 methodology, this survey will utilize **real-time sampling**, which requires participants to respond to the survey regarding a randomly selected client. Please visit the following link and complete an **ELIGIBILITY SURVEY**:

www.cpa.ca/eligibilitysurvey

Your UserID is: [user_id]
Your Password is: [password]

The information gathered from the eligibility survey will allow us to obtain some key demographics on the psychologist practitioners who may be completing Survey 3. *Although we are not aiming for complete representativeness of psychologists in Canada, a variety of participants from every province and other key demographic characteristics will be chosen to complete Survey 3.*

The eligibility survey will also allow us to choose a random time in your work week for you to respond to the actual survey; you will respond to Survey 3 regarding the child or adolescent client seen closest to the time you receive the survey invitation and you will have **48 hours** to submit your responses.

Your willingness to participate is greatly appreciated and your contribution to the project is invaluable. Thank you again for expressing your interest, **Survey 3 will become available mid-November.**

Kindest regards,

Ashley Ronson

APPENDIX G

Survey 3: Eligibility Survey

1. What is your age?

2. What is your gender?

   ☐ Male
   ☐ Female

3. Degree upon which your registration is based:

   ☐ Masters
   ☐ Doctorate

4. Area of psychology in which you obtained your highest degree:

   ☐ Clinical psychology
   ☐ Counselling psychology
   ☐ Clinical neuropsychology
   ☐ School psychology
   ☐ Developmental psychology
   ☐ Other (*please specify)*: _____

5. Province in which you are a registered psychologist practitioner:

   ☐ British Columbia
   ☐ Alberta
   ☐ Saskatchewan
   ☐ Manitoba
   ☐ Ontario
   ☐ Quebec
   ☐ New Brunswick
   ☐ Nova Scotia
   ☐ Prince Edward Island
   ☐ Newfoundland and Labrador

6. How is your practice activity best described?

   ☐ 50% or more in private practice
   ☐ 50% or more in public practice

7. Do you primarily provide services to children and adolescents (including parents, teachers, etc.)?

   ☐ Yes
   ☐ No

8. In a typical work week, what days do you see clients? (*Check all that apply*)

   ☐ Sunday
   ☐ Monday
   ☐ Tuesday
   ☐ Wednesday
   ☐ Thursday
   ☐ Friday
   ☐ Saturday

9. On a typical day, what hours do you see clients? (Use the format XX:XX in 24 hour time)

   Start time of first session: _____
   End time of last session: _____

APPENDIX H

Survey 4 Questionnaire

This survey is intended for psychologist practitioners providing services to adults 18 years of age and older who have been diagnosed with cardiovascular disease (CVD) or diabetes. Your client's CVD may be related to the problem that the client presented to you for psychological services or it may be a coincident condition. Think about the most recent adult client with CVD to whom you provided service on the randomly selected day (or the client you saw nearest to that randomly selected day) and answer the following questions. *When specified, please follow the skip patterns identified in red. Otherwise answer the questions in order. Choose ONE answer for each question unless it is specified to choose as many that apply.*

1. ONE of the adult clients who received my services recently has been diagnosed with:

   ☐ Cardiovascular disease (continue to #3)
   ☐ Diabetes (continue to #2)
   ☐ Both (answer both #2 and #3)
   ☐ Neither (do not continue to complete this survey)

2. Which type of diabetes has the client been diagnosed with:

   ☐ Type 1 (diagnosed before age 30)
   ☐ Type 2 (progressive, diagnosed in adulthood)

continue to #4

3. Can the client's condition be described as:

   ☐ Acquired
   ☐ Present at birth (continue to #5)

4. When was the client diagnosed with CVD/diabetes?

   ☐ Within the last year
   ☐ 1-5 years ago
   ☐ 5-10 years ago
   ☐ More than 10 years ago

5. Since diagnosis, has the client's disease:

   ☐ Deteriorated
   ☐ Remained unchanged
   ☐ Improved
   ☐ Greatly improved
   ☐ Don't know

6. Client's Gender:

   ☐ Male
   ☐ Female

7. Client's Age: _____

8. Ethnicity as identified by the client and/or the caregiver(s):

   ☐ White
   ☐ Chinese
   ☐ Black
   ☐ Filipino
   ☐ Latin American
   ☐ South Asian (e.g., East Indian, Pakistan, Sri Lankan, etc.)
   ☐ Southeast Asian (e.g. Cambodian, Indonesian, Laotian, Vietnamese, etc.)
   ☐ West Asian (e.g., Afghan, Iranian, etc.)
   ☐ Arab
   ☐ Japanese
   ☐ Korean
   ☐ Aboriginal Peoples of North America (North American Indian, Métis, Inuit)
   ☐ Other (*please specify*):_____

9. Sexual orientation as reported by the identified client, if known:

   ☐ Heterosexual
   ☐ Gay/lesbian
   ☐ Bisexual
   ☐ Unknown

10. Marital Status:

- ☐ Married
- ☐ Common Law
- ☐ Widowed
- ☐ Separated
- ☐ Divorced
- ☐ Single and never married
- ☐ Unknown

11. Client's living arrangements:

- ☐ Private residence
- ☐ Residential care
- ☐ Correctional setting
- ☐ Homeless or shelter
- ☐ Other (*please specify*) :_____

12. Please indicate the client's educational attainment:

- ☐ Grade 8 or lower
- ☐ Some high school
- ☐ High school diploma
- ☐ College certificate or diploma
- ☐ Trades certificate or diploma
- ☐ Some undergraduate
- ☐ Undergraduate degree
- ☐ Graduate or professional degree
- ☐ Unknown

13. Is the client employed?

- ☐ Full-time
- ☐ Part-time
- ☐ No
- ☐ Disability pension
- ☐ Unknown

14. What service(s) did you provide to the client during this session? (*Check all that apply*)

- ☐ Assessment
- ☐ Treatment
- ☐ Consultation

14.2 Please specify and briefly describe the type of assessment, therapy, and/or consultation you provided:

_____
_____
_____
_____

15. How many sessions do you anticipate providing in total to this client? (Including all previous and future sessions): _____

16. Thus far in your provision of services to this client, did you consult with other health professionals in relation to the treatment of the client? (*Check all that apply*)

- ☐ Family physician or general practitioner
- ☐ Dietitian or nutritionist
- ☐ Occupational therapist
- ☐ Physiotherapist
- ☐ Medical specialist (e.g., endocrinologist, cardiologist)
- ☐ Other (*please specify)*: _____
- ☐ Did not consult

17. Is this client receiving services from another regulated healthcare provider for the same problem he or she presented to you?

- ☐ Yes (continue to #17.2)
- ☐ No (continue to #18)

17.2 From whom are they receiving these services? (Check all that apply)

- ☐ Psychiatrist
- ☐ Family physician or general practitioner
- ☐ Nurse practitioner
- ☐ Psychologist
- ☐ Counsellor
- ☐ Social worker

- ☐ Speech language pathologist
- ☐ Occupational therapist
- ☐ Social service agencies
- ☐ Physiotherapist
- ☐ Medical specialist (e.g., endocrinologist, cardiologist)
- ☐ Other (*please specify*):_____

18. How was the client referred to you?

- ☐ Self
- ☐ Other client
- ☐ Legal system
- ☐ Family member
- ☐ School system
- ☐ Psychologist
- ☐ Psychiatrist
- ☐ Physician
- ☐ Other health care professional
- ☐ Insurance system
- ☐ Community service
- ☐ Social services
- ☐ Professional referral service

19. Have you made any referrals for this client for: (*Check all that apply*)

- ☐ Substance abuse treatment
- ☐ Other mental health treatment
- ☐ Psychological assessment (e.g., neuropsychological, educational, vocational)
- ☐ Child and family services
- ☐ Social services other than child and family services
- ☐ Medication evaluation
- ☐ Other health care services (*please specify):* _____
- ☐ Support or self help
- ☐ No referrals made

20. In what type of setting or organization did you provide the service to this client?

- ☐ Private practice setting – group practice
- ☐ Private practice setting – individual practice
- ☐ Public health care organization (e.g. hospital, clinic)
- ☐ Correctional facility
- ☐ Community program
- ☐ School (e.g., university or college)

21. Does the client have any early or identifiable risk factors for mental health problems? (*Check all that apply*)

- ☐ Parental mental disorder and/or family history of mental health problem
- ☐ Physical disability and/or long-term illness in the family
- ☐ Other health problems
- ☐ Marital problems
- ☐ Bereavement
- ☐ Exposure to traumatic events
- ☐ Mobility (e.g. frequent moves)
- ☐ Failure to graduate from high school
- ☐ Physical and/or sexual abuse as a child
- ☐ Removal from family by child welfare authorities
- ☐ Unknown
- ☐ No risk factors
- ☐ Other (*please specify*): _____

22. What are the reasons for which the client is seeking services or was brought for services? (*Check all that apply*):

- ☐ Mood problems or disorders
- ☐ Anxiety problems or disorders
- ☐ Personality disorders
- ☐ Intrapersonal issues (e.g., self-esteem, self-confidence, anger, conduct)
- ☐ Interpersonal issues / Relationship conflicts
- ☐ Vocational issues
- ☐ Learning problems
- ☐ Cognitive functioning problems of adulthood (other than learning)

- ☐ Cognitive functioning problems of childhood (other than learning)
- ☐ Psychological and psychosocial problems of childhood
- ☐ Psychosis
- ☐ Managing health, injury, and illness
- ☐ Adjustment to life stressors (e.g., work problem, marital problem, bereavement)
- ☐ Eating disorders
- ☐ Sleep problems or disorders
- ☐ Somatoform disorders (e.g., chronic pain)
- ☐ Sexual abuse and trauma
- ☐ Sexual disorders
- ☐ Substance use and/or abuse disorders
- ☐ Other (*please specify*):_____

23. 1 Does your client have any DSM-IV-TR diagnoses?

- ☐ Yes (continue to #23.3)
- ☐ No (continue to #24)
- ☐ Diagnostic evaluation not yet completed (continue to #24)
- ☐ Unknown (continue to #24)
- ☐ I do not use the DSM (continue to #23.2)

23.2 If you do not use the DSM, do you make diagnoses using a different classification? (e.g., ICD-10)

- ☐ Yes, *please specify*: _____
- ☐ No

continue to #24

23.3 Enter the client's diagnoses:
Primary Diagnosis:_____
Additional Diagnosis:_____
Additional Diagnosis:_____
Additional Diagnosis:_____

24. Please rate the extent to which you believe, prior to seeing you, the client's daily functioning was negatively affected by his or her presenting problem(s):

- ☐ None
- ☐ Little
- ☐ Moderately
- ☐ Severely
- ☐ Unknown

25. Thus far in your work with this client how much change has there been in his or her presenting problem(s)?

- ☐ Recovered
- ☐ Greatly improved
- ☐ Improved
- ☐ Remained unchanged
- ☐ Deterioration
- ☐ Not applicable

26. Client's self-appraisal of health status:

- ☐ Excellent
- ☐ Very Good
- ☐ Good
- ☐ Fair
- ☐ Poor
- ☐ Unknown

27. Does your client have a substance use problem or disorder which is not the presenting problem but is concomitant with it?

- ☐ Yes
- ☐ No
- ☐ Unknown

28. Does the client have suicidal thoughts, ideations, or tendencies?

- ☐ Yes
- ☐ No
- ☐ Unknown

29.1 Is the client receiving psychotropic medication for their *psychological problem*?

- ☐ Yes (continue to #29.2)
- ☐ No (continue to #30)
- ☐ Unknown (continue to #30)

29.2. If yes, what medication(s)? (*Check all that apply*)

- ☐ Antidepressant
- ☐ Anxiolytic
- ☐ Antipsychotic
- ☐ Stimulant
- ☐ Hypnotic
- ☐ Mood Stabilizer
- ☐ Unknown
- ☐ Other (*please specify)*: _____

29.3. If yes, this medication is prescribed to the client by:

- ☐ Family physician or general practitioner
- ☐ Other specialist physician
- ☐ Psychiatrist
- ☐ Nurse-practitioner
- ☐ Other health specialist

30. Did the client seek psychological services primarily to manage their CVD/diabetes?

- ☐ Yes
- ☐ No

31. Did the client's psychological problems precede the diagnosis of CVD/diabetes or follow it?

- ☐ Precede
- ☐ Follow
- ☐ Don't know

32. Do you or any other of the client's health care providers feel that the client's CVD/diabetes is impacted by psychological factors (e.g., depression, stress management)?

- ☐ Yes (continue to #32.2)
- ☐ No (continue to #33)

32.2 Briefly describe how psychological factors could be impacting the client and his/her management of CVD/diabetes:

_____
_____
_____

33. What types of clinically significant stress is the client dealing with?

- ☐ Work
- ☐ Family
- ☐ Relationship
- ☐ Financial
- ☐ Social

34. Are family members or significant others involved in the psychological services you provide to the client?

- ☐ Yes
- ☐ No

35.1 Does the client report any comorbid chronic conditions, other than CVD/diabetes and the presenting psychological problem?

- ☐ Yes, the comorbid condition is *not* part of the presenting problem (continue to #35.2)
- ☐ Yes, the comorbid condition is *contributing* to the presenting problem (continue to #35.2)
- ☐ No (continue to #36.1)
- ☐ Unknown (continue to #36.1)

35.2 What functions are affected by the client's other comorbid chronic condition(s)? (*Check all that apply*)

- ☐ Mental functions (i.e., thinking, feeling, behaving)
- ☐ Neurological functions (e.g., balance, visual fields, initiation of activity)
- ☐ Gross and fine motor functions (e.g., walking, using tools and utensils)
- ☐ Visual functions

- ☐ Auditory functions
- ☐ Speech and language functions
- ☐ Gastrointestinal functions (e.g., digestion, elimination)
- ☐ Endocrine functions (e.g., regulation of body temperature, sleep, metabolism, growth)
- ☐ Cardiac functions (e.g., diseases or conditions affecting the operation of the heart)
- ☐ Respiratory functions
- ☐ Immunological functions
- ☐ Other (*please specify*) :_____

36.1 Please rate the extent to which you believe the client's daily functioning is restricted by his or her mental health problems or chronic condition(s):

- ☐ None (continue to #37.1)
- ☐ Little
- ☐ Moderate
- ☐ Severe
- ☐ Unknown

36.2 Is the restriction in functioning because of the client's chronic condition(s) or his/her presenting psychological problem?

- ☐ Chronic condition(s)
- ☐ Presenting psychological problem
- ☐ Both

37.1 Please rate the extent to which you believe the client's CVD/diabetes and/or presenting psychological problem impacts his or her family or significant others:

- ☐ None (continue to #38.1)
- ☐ Little
- ☐ Moderate
- ☐ Severe
- ☐ Unknown

37.2. Is the impact on family because of the client's CVD/diabetes or his/her presenting psychological problem?

- ☐ CVD/diabetes
- ☐ Presenting psychological problem
- ☐ Both

38.1 Please rate the extent to which you believe the client's CVD/diabetes and/or presenting psychological problem impacts his or her ability to work:

- ☐ None (continue to #39)
- ☐ Little
- ☐ Moderate
- ☐ Severe
- ☐ Unknown

38.2 Is the impact on work because of the client's CVD/diabetes or his/her presenting psychological problem?

- ☐ CVD/diabetes
- ☐ Presenting psychological problem
- ☐ Both

39. Briefly, what are the top 3 factors that challenged you in providing or ensuring the best possible service for this particular client? (e.g., lack of specialized services in the community, lack of funding for a needed service, lack of collaboration among partners in care, lack of support from others involved in care)

_____
_____
_____
_____
_____

General Questions focusing on CVD or diabetes

40. In general, when you provide services to adult clients with cardiovascular disease (CVD) OR diabetes, how common is it for the **management of CVD/diabetes** to be a focus of treatment? (By management, we mean behavioural management such as maintaining exercise or diet, managing stress, etc.)

    ☐ The management of CVD/diabetes is always or most often a focus of treatment
    ☐ Half the time a focus of treatment
    ☐ Occasionally a focus of treatment
    ☐ Rarely or never a focus of treatment

41. In general, when you provide services to adult clients with CVD/diabetes, how common is it for the **psychological distress associated with having CVD/diabetes** to be a focus of treatment? Here we mean helping adult clients deal with feelings such as the fear of a heart attack or death, sadness about loss or change in activity brought about by illness, regret or guilt about the impact of the disease on family members, etc.

    ☐ Psychological distress associated with CVD is always or most often a focus of treatment
    ☐ Half the time a focus of treatment
    ☐ Occasionally a focus of treatment
    ☐ Rarely or never a focus of treatment

42. In general, when you provide services to adult clients with CVD/diabetes, how common is it for you to involve the client's family or significant other(s)?

    ☐ Always
    ☐ Half the time
    ☐ Occasionally
    ☐ Rarely or never

43. In general, when you provide services to adult clients with CVD/diabetes, how often do you communicate with the primary care provider (e.g. family physician) or specialist care provider (e.g. cardiologist, endorcrinologist) who manages the physical aspects of the client's chronic condition?

- ☐ Regularly
- ☐ Once or twice over the course of psychological treatment
- ☐ Never

44.1 In general, do you collaborate with any non-medical, non-nursing health care providers (e.g., occupational therapist, pharmacist, recreational therapist) in helping your adult clients manage their CVD/diabetes?

- ☐ Yes (continue to #44.2)
- ☐ No (continue to #45)

44.2 If so, who do you collaborate with?

_____

45. Participants in this survey are eligible for a $75 honorarium for completing the survey. Please direct my honorarium as follows:

- ☐ To me or my practice
- ☐ To CPA Foundation
- ☐ To another charity or recipient. *Please specify*:_____

46. **Address for honorarium cheque:**

- ☐ Name:
- ☐ Address:
- ☐ City:
- ☐ Province:
- ☐ Postal code:

APPENDIX I

Survey 4 recruitment message

Subject: CPA Practice Network: Survey 4 recruitment

Greetings from CPA,

CPA's electronic practice network requests your participation once again!

The intent of the network is to **enable us to collect information about the practice and demographic characteristics of Canadian psychologist practitioners as well as the demographic and clinical characteristics of the clients they assess and treat.** As you may recall, this initiative has been funded by the Public Health Agency of Canada (PHAC) out of a recognition that, collecting information on the activities of psychologists is critical to understanding Canada's mental health needs and services.

In previous phases, we were looking for all types of psychologist practitioners to participate in web-based surveys of psychologists' activities. CPA recently recruited practitioners who provided services to children and youth because previous surveys had not adequately captured the nature and scope of practice for child and youth psychologists. **Now, CPA is recruiting practitioners who provide services to clients that have been diagnosed with either cardiovascular disease or diabetes.** You do not have to be a health psychologist to participate in this survey; all practitioners are welcome as long as they provide psychological services to clients who have been diagnosed with either of those chronic conditions.

We are looking to recruit 150 psychologists, Canada-wide, to participate. The survey targets the demographic and clinical characteristics specific to clients who have been diagnosed with cardiovascular disease or diabetes. You are eligible to participate if you are currently providing psychological services (e.g., therapy, assessment, intervention) to clients diagnosed with these specific chronic conditions. *Please note that the client's chronic condition may or may not be related to why they have sought services.* It will take up to 45-60 minutes to respond to the survey and we will remunerate participants $75 for full completion of the survey.

Please contact us at practicenetwork@cpa.ca to register your interest and/or to get more information. This is an opportunity for Canadian psychology to contribute to what is known about the mental health demands and utilization of Canadians.

On behalf of Karen Cohen, CPA Executive Director, many thanks and best wishes!

Ashley

APPENDIX J

Feedback questionnaire

1) To which survey(s) did you respond? (*check all that apply*)
   - ☐ S1: Survey of mental health service providers (Fall 2009)
   - ☐ S2: Survey of clients of mental health services (Fall 2009)
   - ☐ S3: Survey of child and youth clients (Fall 2010/Winter 2011)
   - ☐ S4: Clients diagnosed with a chronic condition (Winter/Spring 2011)

2) In what language did you complete the survey?
   - ☐ English
   - ☐ French

3) Approximately how long did it take you to complete the survey? (If you completed more than one survey, please respond with the average time of completion between the surveys. Do not count Survey 1: Survey of mental health service providers in your calculation.)
   - ☐ Less than 5 minutes
   - ☐ 5-10 minutes
   - ☐ 10-20 minutes
   - ☐ Longer than 20 minutes
     - Please estimate how long in minutes: ☐

4) How long (in minutes) is an acceptable length for a survey on psychological practice?
   - ☐ Less than 10 minutes
   - ☐ 10-30 minutes
   - ☐ 30-45 minutes
   - ☐ Longer than 45 minutes

5) What types of surveys would you like to see CPA do in the future?

   Specific populations of clients? (e.g., First Nations, military, older adults, etc.) Please specify:

   ☐

Clients with particular problems? (e.g., eating disorders, anxiety disorders, conduct disorders, etc.) Please specify:

Other? Please specify:

6) Indicate your level of agreement with the following statement: It was **easy** for me to answer the _____questions about my randomly selected client; that is, you had all the information about the selected client available to you. *Please refer to the surveys provided in the link on the Welcome page for the individual questions.*

	Strongly agree	**Agree**	**Neither**	**Disagree**	**Strongly disagree**
Demographic					
Service characteristics					
Psychosocial functioning					

7) Please explain why it was easy or not easy for you to answer these questions.

8) Indicate your level of agreement with the following statement: The survey questions regarding the _____ were **clear and easily understood**. *Please refer to the surveys provided in the link on the Welcome page for the individual questions.*

	Strongly agree	**Agree**	**Neither**	**Disagree**	**Strongly disagree**
Client's demographics					
Service characteristics					
Psychosocial functioning of the client					

9) Please list and explain which questions may have been unclear or misinterpreted, if applicable.

10) Did the survey capture all or most aspects of the client's basic demographic information?

- ☐ Yes
- ☐ No

If no, what questions were missing?

11) Did the survey capture all or most aspects of the psychological service characteristics?

- ☐ Yes
- ☐ No.

If no, what questions were missing?

12) Did the survey capture all or most aspects of the client's psychosocial functioning?

- ☐ Yes
- ☐ No

If no, what questions were missing?

13) Indicate your level of agreement with the following statement: The _____ was **easy to use** and **convenient**.

	Strongly agree	**Agree**	**Neither**	**Disagree**	**Strongly disagree**
Online questionnaire					
Real-time sampling*					

*Real-time sampling was the methodology used for Surveys 2, 3, and 4. It requires that participants provide their practice hours and availability. A random time is selected within the participants' availability for which the participant can respond to the survey regarding the most recent client.

14) Please list and explain any problems or concerns you may have had regarding the online format of the survey or the real-time sampling methodology, if applicable.

15) Would you remove any questions from this survey?

a. Yes
b. No

If yes, which questions would you delete and why?

16) What would you like to see CPA do with the information from these surveys?

17) What is the best format to transmit the results of the surveys to the following groups of stakeholders? (Select all that apply)

	The general public	**Psychology practitioners**	**Government, policy makers**
CPA's website			
Social media (e.g., Twitter, Facebook)			
Brochures, pamphlets			
Journal publications			
Other			

18) What other methods of information transmission would you suggest, if any?

19) Would you complete more surveys of this type without financial compensation?

- ☐ Yes
- ☐ No

20) Do you have any ideas about how we can encourage psychology practitioners to participate in the survey process, especially if we were unable to remunerate them for doing so? (e.g., offering other incentives, stressing the importance of research on psychological practice, providing copies of survey results)

21) When is the best time to survey practitioners? *(Select all that apply)*

- ☐ With CPA membership renewal
- ☐ In conjunction with provincial registration
- ☐ At any time
- ☐ Other, please specify:

22) What is the best method to notify practitioners about participating in these types of surveys? *(Select all that apply)*

- ☐ Online research portal (e.g., CPA's R2P2)
- ☐ Member publications (e.g., Psynopsis)
- ☐ Email
- ☐ Via regulatory body
- ☐ Other, please specify:

23) Do you have any additional comments about your survey experience?

APPENDIX K

Feedback Questionnaire recruitment email

Subject: CPA Practice Network: Feedback on your survey experiences

Greetings from CPA,

CPA's electronic practice network project has completed four surveys over two years on various aspects of psychology practice in Canada. The intent of the network was to enable us to collect information about the practice and demographic characteristics of Canadian psychology practitioners as well as the demographic and clinical characteristics of the clients they assess and treat. As you may recall, this initiative has been funded by the Public Health Agency of Canada (PHAC) out of a recognition that, collecting information on the activities of psychologists is critical to understanding Canada's mental health needs and services.

Now that the project is complete, we are looking for past participants to provide feedback about their survey experiences.

We are looking for **30 past participants** to complete a brief feedback questionnaire. You are eligible to participate if you have completed one or more of the following surveys:

Survey 3: Survey of child and youth clients
Survey 4: Clients diagnosed with a chronic condition

Please note that completing the feedback questionnaire is on a volunteer basis; participants will not be remunerated for survey completion.

Please contact us at practicenetwork@cpa.ca to register your interest and/or to get more information about the project. This is an opportunity for participants to contribute to the survey process and provide helpful ideas of how to improve the administration of future surveys.

On behalf of Karen Cohen, CPA Chief Executive Officer, many thanks and best wishes!

Ashley