# Addressing Challenges and Barriers to Translating Psychotherapy Research into Clinical Practice: The Development of a Psychotherapy Practice Research Network in Canada

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**Abstract**

Despite a large body of research indicating the effectiveness of evidence-based psychotherapies and therapeutic processes, there remains a practice-research divide. Clinicians do not consistently use evidence to inform their treatments, and researchers do not often rely on clinicians' knowledge to inform their research. This divide is partly due to identifiable barriers. Practice research networks in psychotherapy may be one means of bridging the practice-research gap. In this paper we use Theory of Planned Behavior (TPB; Ajzen, 1991) to help to understand the barriers experienced by clinicians in using psychotherapy research. We also evaluated the TPB model by an empirical study of 68 clinicians who attended a conference on practice research networks and who completed a TPB questionnaire prior to the conference. Clinician attitudes toward psychotherapy research, the social norms they experience within their practice settings, and their perceived behavioural control over implementing research were each uniquely and significantly related to intention to use psychotherapy research to inform practice. Intentions were correlated with behaviour change in health professionals. We conclude by describing the development of the Psychotherapy Practice Research Network (PPRNet) as a unique collaborative approach to bringing clinicians and researchers together to diminish barriers by improving attitudes, social norms, and perceived behavioural control among clinicians and researchers. The PPRNet will help to inform clinical practice and generate psychotherapy research that is more meaningful to clinicians and more practically applicable.

KEY WORDS: Practice research network; PRN; evidence-based practice; research; clinical practice; practice-research gap; best practices; theory of planned behavior; knowledge translation

# Addressing Challenges and Barriers to Translating Psychotherapy Research Into Clinical Practice: The Development of a Psychotherapy Practice Research Network in Canada

Based on recent statistics, over 1 million Canadians saw a psychologist or psychotherapist in the past year for mental health or addiction problems (Cox, 2014; Vasiliadis, Tempier, Lesage, & Kates, 2009). The rates of psychotherapy use have remained the same or declined slightly over the past decade concurrent with the dramatic rise in the use of antidepressant medication during the same period (Olfson & Marcus, 2010). Regardless, a large number of Canadians turn to psychotherapy for their mental health needs, and to reduce their suffering and improve their quality of life (Bradley & Drapeau, 2014; Cohen & Peachy, 2014; Votta-Bleeker & Cohen, 2014). There is a large body of research that has consistently demonstrated positive outcomes of psychotherapy for a wide variety of disorders (e.g., Fonagy, Target, Cottrell, Phillips, & Kurtz, 2002; Nathan & Gorman, 2007). Psychotherapy is as effective, and possibly more effective than medications for treating some common mental health problems such as depression (Forand & DeRubeis, 2013). Nevertheless there remains a significant practice-research divide when it comes to psychotherapy (Boisvert & Faust, 2006; Wilson, Armoutliev, Yakunina, & Werth, 2009). That is, clinicians often do not use existing research to guide their practice (e.g., Fitzpatrick, 2012; Drapeau & Hunsley, 2014), and researchers typically do not rely on clinicians' input when designing psychotherapy research (Beutler, Williams, Wakefield, & Entwistle, 1995). This divide, in part, has motivated the creation of task forces on the dissemination of evidence based approaches (e.g., APA Presidential Task Force, 2006; Dozois et al., 2014; Norcross & Lambert, 2011). Some task forces created lists of evidence based treatments (e.g., Fonagy et al., 2002; Hunsley, Elliott, & Therrien, 2014; Nathan & Gorman, 2007) and reviews of evidence based practices (EBP; e.g., Norcross &

Lambert, 2011). Although these lists document best practices in psychotherapy, they do not appear to have had an impact on clinicians' willingness to adopt these interventions (e.g., Tobin, Banker, Weisberg, & Bowers, 2007; von Ranson, Wallace, & Stevenson, 2013).

One way of conceptualizing the practice-research divide is to understand it as a gap between knowledge to action, which in turn can be situated within a knowledge translation framework. Graham and colleagues (Graham, Logan, Harrison, Straus et al., 2006) define knowledge exchange as collaborative problem solving between researchers and clinicians resulting in mutual learning. Graham and colleagues (2006) describe the knowledge translation process in two stages: (1) knowledge creation; and, (2) the action cycle. It is the second part of this two-stage process that is lacking in the field of psychotherapy (Beutler et al., 1995; Boisvert & Faust, 2006; Wilson et al., 2009). The action part of the cycle is based on planned action theories (e.g., Theory of Planned Behaviour [TPB]; Ajzen, 1991) that focus on changing health behaviours of individuals, including health professionals (Godin, Belanger-Gravel, Eccles, & Grimshaw, 2008). When applied to the practice-research divide in psychotherapy, the action cycle identifies key steps, including: identifying the problem (i.e., the practice-research gap in psychotherapy); assessing barriers to knowledge use (discussed below); implementing interventions to overcome barriers (e.g., developing a practice research network [PRN], also discussed below); monitoring knowledge use and evaluating outcomes; and sustaining knowledge use.

In this paper we focus on the barriers to using psychotherapy research to inform clinical practice. In doing so, we will use TPB constructs (Ajzen, 1991) to help to understand the barriers, and we will evaluate the TPB model in this context by presenting an empirical study of clinicians who attended a conference on practice research networks. TPB factors have been

shown to predict intentions (or motivation) to engage in health behaviours (Ajzen, 1991), and intentions are highly correlated with health professionals' behaviours in clinical practice (Armitage & Conner, 2001; Eccles et al., 2006; Godin et al., 2008). For example, Godin and colleagues (2008) conducted a meta-analysis of 72 prospective studies of physicians, nurses, and other health professionals in which intentions were used to predict subsequent behaviors such as: compliance with guidelines for prescribing, hand hygiene, and documentation, acceptance of technologies, among others. Intention was significantly associated with subsequent self-reported behaviors ($R^2$ = .44) and with objectively observed behaviors ($R^2$ = .13) among health professionals (Godin et al., 2008). We argue that by applying the TPB factors to better understand the barriers to translating psychotherapy research into practice, one can re-interpret the nature of these barriers and therefore better articulate an intervention. We conclude the paper by describing the development of the Psychotherapy Practice Research Network (PPRNet) as a specific intervention to address TPB-based barriers and to reduce the practice-research gap.

**Understanding the Barriers**

Unlike the quickly emerging research literature on understanding the implementation of EBP in other areas of health care (e.g., Godin et al., 2008), there is currently little or no literature on theories and methods of changing clinicians' behaviours to use research to inform their delivery of psychotherapy. To explain clinicians' behaviors and treatment choices, some researchers have invoked concepts such as clinician cognitive biases and dissonance, and clinician decision errors based on a faulty understanding of probabilities and base rates (Lilienfeld et al., 2013b). However, these concepts have not been tested in the context of integrating psychotherapy research into practice, and so we do not know if they represent adequate explanations for the current state of affairs. Although invoking these concepts has some

intuitive appeal, it may have unintended negative effects. First, academic researchers who highlight clinicians' purported cognitive biases unintentionally may further alienate clinicians from appreciating the benefits of research for clinical practice. That is, clinicians may experience this characterization of their clinical decision making as patronizing. Second, such conceptualizations do not explore researchers' behaviors and attitudes as possible barriers to integrating research and practice. For example, some have suggested that researchers are reluctant to include clinicians on research teams and may devalue clinician input (Beutler et al., 1995). Third, these models of clinician cognitive biases do not necessarily provide a conceptual framework or theory that can inform interventions or processes that will overcome barriers to using psychotherapy research and change clinician behaviors.

Based on the research evidence, one can identify at least three barriers to translating psychotherapy research into clinical practice. *First*, a concern among clinicians is that while EBPs are based on highly internally valid studies, findings of this research may not generalize to more diverse real world populations that clinicians indicate that they treat (Kendall & Chambless, 1998; Westen, Novotny, & Thompson-Brenner, 2004). As a result, some express concern that practitioners pay little heed to research (von Ranson & Robinson, 2006), and clinicians counter that psychotherapy research is not always relevant to real-world practice (Westen et al., 2004). A *second* barrier to implementing psychotherapy research is a lack of communication between clinicians and researchers, resulting in a translational gap between clinical trials and clinical practice. Community-based clinicians may feel disconnected from research that is designed and implemented in health sciences and academic centers (Beutler et al., 1995). On the other hand, as mentioned researchers may place a lower premium on information gleaned from clinicians and may not readily use this knowledge to inform their

research (Beutler et al., 1995). Despite this, a recent survey indicated that Canadian psychotherapists are interested in research (Lau, Ogrodniczuk, Joyce, & Sochting, 2010), and others report that clinicians' behaviours change when they are made aware of research relevant to their practices (Stewart & Chambless, 2007). A *third* barrier is related to the professional diversity of psychotherapy practitioners. Unlike many other areas of health care (e.g., dentistry, optometry, medical specialties), psychotherapy is practiced by a broad array of professionals (e.g., psychologists, psychiatrists, counsellors, social workers, among others) in a variety of settings (e.g., private offices, community clinics, rehabilitation centres, hospitals), and for a wide range of client problems (e.g., addictions, anxiety disorders, depression, eating disorders, etc.). Training in psychotherapy practice and in the conduct and use of psychotherapy research also varies greatly. Further, different regulatory colleges require different standards of training, continuing education, and regulatory requirements; and different professional organizations have different criteria for accreditation.

**Reinterpreting the Barriers**

The gap between research and practice has been explored in many domains and multiple theories have been used in doing so. The TPB is the most widely used theory in the realm of knowledge translation to predict clinical practice behaviour of health professionals (Godin et al., 2008). The TPB constructs of attitudes, social norms, and perceived behavioral control are believed to influence the intention (or motivation) to perform a particular behaviour (Ajzen, 1991). Attitudes toward the behavior reflect an individual's positive or negative evaluation of performing a particular behavior. Social norms refer to an individual's perception of social pressure to perform or not perform the behaviour. If one perceives that significant others endorse or disapprove of a behavior, then they are more or less likely to intend to perform the behavior.

Perceived behavioural control refers to one's own self efficacy and sense of control over engaging in the behavior. The TPB model has been used to predict intentions to engage in health behaviors (e.g., condom use, smoking cessation), and exercise behaviors in the general population (Armitage & Conner, 2001). Reviews and meta-analyses indicate that the model performs well such that attitudes, subjective norms, and perceived behavioural control predict intentions, which in turn predict engaging in health behaviors (Ajzen, 1991). However, TPB constructs tend to be better at predicting self-reported behaviors than observed behaviors (Armitage & Conner, 2001; Godin et al., 2008). In a meta-analysis of studies focused on predicting health professionals' behaviours (i.e., dentists, physicians, nurses, pharmacists, psychologists, social workers, and other mental health professionals), TBP constructs (attitudes, social norms, perceived behavioural control) explained 59% of the variance in intentions and 35% of the variance associated with behaviours (Godin et al., 2008). Intentions and behaviours were significantly related in a separate meta-analysis ($R^2$ = .22, $p$ < .001; Armitage & Conner, 2001), and in a systematic review ($R^2$ = .15 to .40; Eccles et al., 2006).

The first TPB factor is the clinician's *attitude* or appraisal of performing the behaviour. For example, a practitioner may value or devalue the use of manuals or evidence-based psychotherapeutic stances. The second factor, *subjective norm* is defined as the social or peer expectations that may determine the behaviour. For example, a clinician's willingness to adopt research recommendations may be influenced by their professional or peer group's views of research. The third factor, *perceived behavioral control* is defined as the available resources (including availability of knowledge), opportunities to engage in the behaviours, or self-efficacy. Some clinicians, for example, may not have access to training or knowledge about research-based interventions.

By applying the TPB factors to understand the barriers to translating psychotherapy research into practice, one can re-interpret the nature of these barriers and therefore better articulate an intervention. The first barrier (i.e., clinicians' report that research evidence may not be relevant to clinical practice) can be related to a negative *attitude* toward using the evidence and to a *subjective norm* since fellow clinicians may often share these perceptions. The second barrier of poor communication between clinicians and researchers may imply low *perceived behavioural control* since there is little opportunity for clinicians and researchers to share knowledge, and negative *attitude* since both clinicians and researchers may not value each others' input enough. The third barrier, lack of cohesion among psychotherapy professionals, might indicate a *subjective norm* that does not promote cross disciplinary dialogue, and low *perceived behavioral control* due to lack of opportunity for such dialogue.

To assess whether these TPB factors (i.e., attitudes, subjective norms, perceived behavioral control) affect intentions to use psychotherapy research to change practice we surveyed a group of multi-disciplinary clinicians who attended a conference on practice-based research. We hypothesized that among this group of clinicians, attitude towards research, subjective norms, and perceive behavioral control would be each independently and significantly associated with intention to use research to inform clinical practice.

## Method

### Context and Participants

A Psychotherapy Practice Research Network (PPRNet; www.pprnet.ca) was launched at an inaugural conference in Ottawa in November 2012. The conference brought together clinicians, researchers, educators, and representatives of professional organizations in small

focus groups to discuss barriers and opportunities to participate in the PPRNet, and to develop a preliminary list of research themes that are particularly salient to clinicians.

Participants were 68 practicing clinicians who attended the conference. One hundred and seventeen individuals attended the conference, and the response rate to the survey was 67.52%, with 79 individuals completing the pre-conference questionnaire. Respondents to the survey ranged in age from 22 to 74 years ($M$ = 49.38, $SD$ = 12.94). Of the 79 participants who completed the questionnaire, 68 (87.2%) practiced psychotherapy and these were the participants in this study. Direct patient contact was the predominant professional activity for 46 (67.6%) participants. The largest proportion of participants worked in private practice (45.6%) with adult patients (89.7%) providing individual therapy (85.3%). Additional sample demographics of the 68 participants who practice psychotherapy are reported in Table 1.

**Procedure**

The PPRNet conference was advertised through several professional organizations across Canada, and the conference was held in Ottawa in November 2012. Registrants ($N$ = 117) were sent a link to the online questionnaires hosted on the Fluid Surveys site shortly after they registered. Two reminder emails were sent prior to the conference to all non-responders. Respondents provided informed consent, and the study was approved by the Ottawa Health Sciences Research Ethics Board.

**Measure**

*Theory of Planned Behaviour Questionnaire (Wilson et al., 2011).* In order to assess participants' attitudes, subjective norms, perceived behavioral control, and intention to use research, we used a modified questionnaire that was developed by Wilson et al. (2011) based on the Theory of

Planned Behaviour (TPB) constructs. The TPB Questionnaire consists of four subscales: *attitudes*, *subjective norms*, *perceived behavioural control*, and *intentions*. The measure has a total of 14 items that are scored on a 7-point Likert scale (1= strongly disagree; 7= strongly agree). The original instrument was used to assess TPB constructs in adopting best practices in medical treatment settings. For this study, the items were re-worded to include words and phrases like "psychotherapy" or "psychotherapy research". Example items included: "Using psychotherapy research is beneficial to my practice" for the *attitudes* scale (3 items); "People who are important to me think I should use psychotherapy research" for the *subjective norms* scale (4 items); "whether or not I use psychotherapy research is entirely up to me" for the *perceived behavioral control* scale (4 items); and "I intend to use psychotherapy research" for the *intentions* scale (3 items). The original scale demonstrated good construct validity and reliability, and has been successfully modified across several health care domains (Wilson et al., 2011). Coefficient alphas of TPB Questionnaire scales in the current sample were: *attitudes* = .*71*, *subjective norms* = .79, *perceived behavioural control* = .63, and *intentions* = .71. This indicated adequate reliability for most scales. Coefficient alpha for *perceived behavioral control* was low possibly due to the sensitivity of the coefficient alpha statistic to small number of items. To assess this we calculated the mean inter-item correlation, which is an alternate measure of internal consistency that is not sensitive to number of items (Clark & Watson, 1995). Mean inter-item *r* for the perceived behavioral control scale was .16, indicating adequate internal consistency (Clark & Watson, 1995).

**Statistical Analyses**

Multiple regression analysis was used to assess the unique association among *attitudes*, *subjective norms*, and *perceived behavioural control* (entered together as independent variables

in the model), and clinicians' *intention* to use research to inform their practice (dependent variable). Data was screened for missing data and violations of assumptions prior to analysis. Sixty-three participants had complete TPB Questionnaire data which were used in the regression analysis.

## Results

Table 2 provides participants' means and standard deviations for the four TPB subscales. Results of the regression indicated that a significant proportion of the total variation in *intentions* can be accounted for by a combination of *attitudes*, *subjective norms*, and *perceived behavioural control*, $F(3, 62)=19.41$, $p < .001$. The adjusted $R$ squared suggests a good model fit and large effect so that 47% of the variance in participants' *intentions* to use research to inform their practice can be explained by the three TPB constructs combined. To assess the unique contributions of each TPB construct, we assessed their partial correlations (*pr*) with *intention.* Partial correlations were significant for the relationship between each of the three TPB scale predictors and *intention* to use psychotherapy research: *attitudes*, $pr(63) = .50$, $p < .001$; *subjective norms*, $pr(63) = .35$, $p = .005$; and *perceived behavioral control*, $pr(63) = .28$, $p = .03$. These findings indicate a significant and unique relationship between each TPB scale predictor (i.e., after controlling for the other two predictors) and *intentions* to use psychotherapy research in clinical practice.

## Discussion

There is a well-documented practice-research gap in psychotherapy (Beutler et al., 1995; Boisvert & Faust, 2006; Wilson et al., 2009). However few theories have been put forth and tested by researchers and clinicians that could inform interventions to reduce this gap. The

Theory of Planned Behavior (TPB; Ajzen, 1991) has been applied in other health care domains to conceptualize barriers to using research (Wilson et al., 2011). In this study, we asked a group of psychotherapists to complete a TPB questionnaire prior to attending a conference. We found that *attitudes* towards psychotherapy research, *subjective norms* within their peer and work groups regarding the use of research, and *perceived behavioral control* over the implementation of research knowledge were each independently related to the clinicians' *intention* to use research to inform psychotherapy. *Attitudes* uniquely accounted for 25% of the variance, *subjective norms* uniquely accounted for 14% of the variance, and *perceived behavioral control* unique accounted for 8% of the variance in intentions. These findings suggest that a clinician's attitude towards research may be the largest contributor to their intention to use research. As noted previously, intentions are significantly correlated with behaviors among health professionals (Armitage & Conner, 2001; Godin et al., 2008). We acknowledge that these results may be biased because the sample of clinicians attending the conference may represent those who are particularly attuned to the practice research interface. Nevertheless, these findings are consistent with previous research with other health care providers (Godin et al., 2008), and so we argue that the findings suggest that the TPB model to conceptualize barriers to using psychotherapy research may help to better understand the practice research divide. Further, a TPB model can inform interventions that may increase the likelihood of research uptake among clinicians. One such intervention is to develop a practice research network (PRN) for psychotherapy.

**Psychotherapy Practice Research Networks: A Solution to the Practice-Research Gap?**

A novel approach to overcoming barriers to translating psychotherapy research to clinical practice might involve conducting psychotherapy research in applied community and clinical

settings in which clinicians inform research areas important to them and their clients (Beutler et al., 1995). Practice research networks (PRNs) for psychotherapy may be one mean of achieving this goal (Borkovec et al., 2001). In a PRN, community-based clinical practitioners actively collaborate with researchers to define research questions, design research protocols, and implement studies. This collaboration between practitioners and researchers is devoted to the conduct of scientifically valid effectiveness research.

An important outcome of PRNs is the collaborative relationships that can develop between clinicians and researchers, which can in turn lead to new behaviors among both groups. These collaborative relationships can go a long way to reducing barriers for clinicians to use research. *Attitudes* about research can be changed if clinicians feel that they have direct input into research questions, design, methodology, and reporting. In this way, clinicians' concerns about low generalizability of psychotherapy trials (Westen et al., 2004) can be diminished if they are equal partners who ensure the applicability and translation of the research findings. *Subjective norms* may also change among clinicians who participate in a PRN. For example, the partnerships formed with other clinicians who value research, and with researchers who value clinical input could become the new norm or new reference group for clinicians. In particular, experiencing researchers as equal collaborators and not as critics of clinician decision making could make a difference in changing these subjective norms. PRNs can provide a context for greater two-way dialogue, partnerships, and collaborations between researchers and clinicians. Finally, *perceived behavioral control* may also be affected by clinicians and researchers participating in a PRN. Clinicians who have direct input into research by collaborating with researchers may experience a greater sense of ownership of the findings and a greater sense of efficacy with regard to the science of psychotherapy. Clinicians' decisions to change practice

behaviors will likely be facilitated if the decision is experienced as consistent with the practice recommendations that they helped to craft through research collaboration.

A growing literature on PRNs has resulted in practice-oriented research on: clinician- and client-defined helpful and hindering events in psychotherapy (Castonguay et al., 2010a), predicting treatment outcomes (Ruiz et al., 2004), and effectiveness of psychological therapies delivered in routine care (Borkovec et al., 2001). Castonguay and colleagues (2013) provide an extensive review of PRN research conducted around the world, including the Pennsylvania Psychotherapy Practice Research Network (Castonguay et al., 2010a, 2010b). PRN research tends to be organized around: common practice setting like university clinics, specific disorders like substance abuse, or professional organizations (Castonguay et al., 2013). The research typically consists of practice surveys, effectiveness studies, and some randomized trials.

PRNs are beginning to develop in Canada with notable groups emerging in Toronto, Montreal, and Ottawa (see www.cpa.ca/aboutcpa/cpasections/clinicalpsychology/prns/ and www.mpprg.mcgill.ca). The Ottawa PPRNet, for example, was launched in 2012 and brings together clinicians, researchers, educators, and representatives of professional organizations. In November 2012, the group developed a preliminary list of 41 research themes that are particularly salient to clinicians. These themes were gleaned from focus groups and were turned into survey items that were rated by clinicians. The top rated research themes will become the bases for practice-based research that is collaboratively conceived and implemented by clinicians and researchers. The overall orientation is a deliberative priority setting process in which clinicians and researchers jointly decide on the research agenda of the PPRNet going forward. PPRNet now has over 600 “friends” and “members” most of whom are clinicians who indicated that they have some interest in practice based research in psychotherapy. One of the key issues

identified by clinicians at the conference was a lack of access to easily available and synthesized psychotherapy research. In response to this, the PPRNet launched a web site (www.pprnet.ca) hosted by the University of Ottawa. The web site has resources for clinicians, including links to best practices guidelines for psychotherapy, and a monthly updated blog that synthesizes the most current research in psychotherapy with specific practice implications.

Despite our focus in this article on clinician related barriers, the practice-research divide has two sides and it is time for researchers to take their share of responsibility for the schism. Researchers must openly invite clinicians onto research teams from the outset when research questions are defined, treatments are developed, and methods are designed. Researchers should build incentives into research grant applications to encourage clinician input, academic institutions and departments should allow for clinician partners to acquire adjunct faculty status, and funding agencies, reviewers, and journal editors should place a premium on practice-based research. This will likely require researchers to put resources into nurturing important partnerships, and to reconsider what is valid research and how best to translate the research into clinical practice. Clinicians have an enormous knowledge base of clinical experiences that speak to the practical aspects of defining client problems, developing and implementing interventions, and creating a therapeutic context within which clients may benefit. This practical knowledge base, which is not necessarily the purview of academic researchers, may alter what researchers consider to be important questions or methods of intervention.

In this article we took a knowledge translation and exchange perspective to understanding and practice-research gap in psychotherapy and to considering ways of overcoming the divide. In doing so, we redefined barriers to clinicians' use of research to inform psychotherapy from a TPB perspective, and we tested whether TPB constructs were related to clinicians' intentions to

use research. Clinician attitudes, social norms, and perceived behavioral control were each independently related to their intentions, and so each could be a target of intervention to reduce the practice research divide. We described PRNs as an intervention to provide a context within which collaborative exchange can occur that may alter the way in which psychotherapists practice and the way researchers conduct their studies. By their nature, PRNs can blur the line between clinician and scientist and lead to more informed practice and translatable research.

Table 1

*Demographic Characteristics of Practicing Psychotherapists Who Attended the Psychotherapy Practice Research Network Conference*

| Characteristic | | *n* | *%* |
|---|---|---|---|
| Gender | Female | 42 | 61.8 |
| Profession | Psychiatry | 11 | 16.2 |
| | Psychology | 36 | 52.9 |
| | Social Work | 7 | 10.3 |
| | Student | 4 | 5.9 |
| | Other | 10 | 14.7 |
| Education | MA/MSc/MSW | 14 | 20.6 |
| | MD | 12 | 17.6 |
| | PhD/PsyD | 37 | 54.4 |
| | Other | 5 | 7.3 |
| Primary Theoretical Orientation | Cognitive Behavioural | 16 | 23.5 |
| | Eclectic | 16 | 23.5 |
| | Humanistic | 5 | 7.4 |
| | Interpersonal | 5 | 7.4 |
| | Psychodynamic | 24 | 35.3 |
| | Other | 2 | 2.9 |

Note: $N = 68$.

Table 2

*Theory of Planned Behaviour Subscales: Means (M) and Standard Deviations (SD) of items.*

| Scale | *M* | *SD* |
|---|---|---|
| Attitudes | 5.45 | .87 |
| Subjective Norms | 4.63 | 1.40 |
| Perceived Behavioural Control | 5.51 | .80 |
| Intentions | 5.69 | 1.23 |

*N*=63

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