Transdiagnostic Internet-delivered Cognitive Behaviour Therapy: Utility of a Motivational Interviewing Resource

A Thesis
Submitted in Partial Fulfillment of the Requirements
For the Degree of
Honours in Psychology

by
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Abstract

Background: Despite growing evidence for the effectiveness of internet-delivered cognitive behaviour therapy (ICBT), engagement and treatment outcomes are lower for some patients. Online motivational interviewing (MI) has been investigated prior to ICBT to facilitate engagement and outcomes, but only appears to improve engagement. Purpose: This feasibility study investigated the potential use of a MI resource offered during ICBT rather than before, by examining: (1) utilization of the resource; (2) patient and treatment variables associated with utilization; (3) whether use of the resource was associated with improved engagement and outcomes; and (4) how those who used the resource evaluated it. Method: This study used data collected from 763 patients enrolled in an ICBT course. Patients completed an MI resource evaluation measure at post-treatment. Symptoms were assessed at pre- and post-treatment. The website tracked treatment engagement. Results: Approximately 15% of patients used the resource. Patients who were older, had higher education, higher depression, and lower anxiety at pre-treatment were more likely to use the resource. Those who reported using the resource had higher engagement (i.e., more lessons and more messages) in ICBT, but lower improvement in disability. Positive feedback on the MI resource outweighed the negative (94% positive comments; 16% negative comments) and 68% of clients reported making changes in response to the resource. Overall, the MI resource appears to have utility for a small portion of patients who complete ICBT. The study provides insight to who will use the resource. Future research directions related to MI and ICBT are discussed.
Acknowledgements

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Chapter One: Introduction

1.1 Overview

Internet-delivered cognitive behavioural therapy (ICBT) offers a promising contemporary form of treatment. This form of therapy utilizes the convenience and benefits of technology to deliver information online that would normally be shared in face-to-face therapy. ICBT has proven effective in treating diverse mental health disorders and provides an alternative method of treatment for those seeking therapy (Andersson et al., 2019). Despite the positive findings associated with this form of therapy, it is still relatively common for patients to become disengaged during treatment by not completing or putting significant effort into treatment materials (van Ballegooijen et al., 2014). This issue can be further exacerbated when the therapist is not in the same room as the patient to motivate them to persist in their treatment process. Consequently, there may be value in exploring how to incorporate motivational interviewing (MI) into ICBT to improve completion rates and outcomes. MI is commonly used in face-to-face treatment to intrinsically motivate patients to participate in change-seeking behaviour and ultimately complete treatment (Randall & McNeil, 2017). The research on MI in regards to ICBT has been relatively limited, and requires further research in order to improve its integration in ICBT.

1.2 Internet Delivered Cognitive Behavioural Therapy (ICBT)

ICBT has now been studied and found effective for many mental health disorders, such as social anxiety disorder, generalized anxiety disorder, panic disorder, posttraumatic stress disorder and major depression (Andersson et al., 2019). In fact, Carlbring et al. (2017) concluded in a systematic review and meta-analysis, that ICBT and face-to-face therapy had comparable pooled effect sizes when measured at post-treatment (Carlbring et al., 2017). Available research
also suggests that ICBT is effective at improving general functioning and preventing relapse up to 24 months post-treatment (Andersson et al., 2014).

ICBT has many advantages compared to face-to-face therapy, including increased accessibility for those concerned about privacy, or limited ability to access therapy due to time constraints or rural and remote location (Patel et al., 2016). ICBT is a versatile treatment with room for flexibility in terms of what content is provided and how much of the treatment is self-guided as opposed to clinician-guided (Titov et al., 2015). Patients have expressed appreciation for the ability to read other patients’ experiences and to download and save the contents of the lessons for future use (Hadjistavropoulos et al., 2018).

Despite over two decades of research on ICBT (Andersson et al., 2019), there is still room for improvement to optimize ICBT uptake, engagement and outcomes. One significant barrier to symptom improvement in ICBT is high levels of attrition and program non-completion (van Ballegooijen et al., 2014; Webb et al., 2017). This adverse consequence could be related to the patient’s struggle to adhere to treatment (van Ballegooijen et al., 2014). It can also be difficult for clinicians delivering ICBT to find ways to support their patients virtually to maximize motivation and engagement with materials (Gandy et al., 2016). Therefore, there is a need to develop strategies that assist with program engagement.

1.3 Engagement

One of the most challenging aspects of ICBT is to keep patients engaged in their treatment as it is completed out of the clinic on their own time. A few articles of note regarding attrition in the literature suggest that the amount of therapist support may be related to patient engagement in ICBT. Hadjistavropoulos et al. (2017) found that when placing participants in an optional weekly therapist support condition (therapists only contacted participants when
contacted by the participant first), compared to a standard once-weekly therapist support condition, therapists received half as many messages. It was also found that participants had significantly lower completion rates and mean number of log-ins in the optional weekly support condition. These findings highlight the effect that different ICBT formats can have on patient engagement with their treatment. A meta-analysis examining adherence levels in face-to-face therapy and ICBT indicated equivalence of about 80% completion between the two treatment formats (van Ballegooijen et al., 2014). However, it was found that dropout occurred in earlier stages of face-to-face CBT and more gradually in ICBT. These results could indicate that the reasons for dropout in the two treatment formats are different.

Researchers have attempted to reduce dropout and improve patient engagement by changing the amount of therapist support to meet clients’ needs and adding interactive design features (Gandy et al., 2016). Hadjistavropoulos et al. (2020) examined if the frequency of therapist support improved patient engagement. They investigated this by implementing twice-weekly contact compared to once-weekly contact with therapists in order to avoid risk of non-completion and improve outcomes. However, they failed to find support for this strategy as there were no significant improvements found in the twice-weekly support condition. Another way this risk has attempted to be reduced is by way of automated messages (Gandy et al., 2016). These messages were implemented in the form of short message service (SMS) prompts that encouraged the participant to develop their skill practice. Although SMS prompts were considered to be an acceptable supplement to the course, they had no overall effect on clinical outcomes. Attempts to increase engagement have not been successful thus far. Therefore, alternative strategies are needed in order to address this issue.
1.4 Motivational Interviewing (MI)

Within the face-to-face literature, MI has been used to address low adherence to face-to-face therapy for various disorders (Randall & McNeil, 2017). MI is meant to improve patient ambivalence towards change. It is a goal-oriented and patient-centred intervention, as it involves the evocation of the patient’s own motivation. It typically involves asking patients open-ended questions, listening to their responses, and providing affirmational and summary statements to strengthen patient motivation and change talk (Miller & Rollnick, 2013). Within the face-to-face literature, MI is found to improve treatment initiation, adherence and response overall (Randall & McNeil, 2017).

To date, there are only a few studies on the integration of MI and ICBT. In the first study in this area, Titov et al. (2010) researched whether the use of self-guided motivational enhancement strategies presented at pre-treatment improved completion rates and clinical outcomes and found that it did increase completion rates. Nevertheless, the addition did not improve clinical outcomes or acceptability. Soucy et al. (2021) subsequently conducted a randomized trial examining the potential benefits of a brief but more interactive online MI intervention consisting of 3 videos and 5 interactive MI exercises (Beck et al., 2020) before patients completed therapist-guided ICBT. In this study, the researchers randomly assigned patients to receive ICBT with or without the online MI at pre-treatment. It was found that by adding MI to ICBT, it resulted in more motivational statements in patients’ emails, and they found that patients were enrolled in the course for a greater number of days. Although online MI seemed to be beneficial in this study, the researchers noted that the online MI did not improve patient outcomes. However, the lack of findings may be related to the fact that all patients began with relatively high motivation prior to ICBT. An alternative to offering MI prior to treatment is
to offer a MI resource during the course of ICBT when patient motivation may wane. To date, the extent to which such a resource would be used, and or result in improved engagement and outcomes, has not been studied.

**Chapter Two: Purpose and Objectives of Study**

Although ICBT shows considerable promise in terms of outcomes, there is room for improvement in both ICBT engagement and motivation (van Ballegooijen et al., 2014). MI has been used in face-to-face therapy to facilitate engagement and outcomes (Randall & McNeil, 2017). There has also been some use of MI combined with ICBT, although the research has focused on using MI at pre-treatment (Soucy et al., 2021). To date, there has been no research on whether an online MI resource offered during ICBT would be used by patients and associated with certain patient and treatment variables as well as improved engagement and outcomes. It is also not known how patients would use and evaluate the resource. The current study aimed to explore the potential value of an optional online MI resource available to patients at any point during an 8-week ICBT course. More specifically, this study evaluated the pattern of use and associated correlates of an optional additional resource designed to mimic face-to-face MI during ICBT. The online MI resource included open-ended prompts that allowed patients to reaffirm and clarify their values while reflecting upon their own behaviours. Questions answered in the current study include:

1) At post-treatment what percentage of patients will report engaging with the MI resource during treatment?

2) How will patients who report engaging with the online MI resource differ from those who do not report engaging with online MI or patients who do not respond to questions about their use of MI on patient (e.g., age, gender, education) and treatment variables (e.g.,
optional versus standard support, number of lessons completed, treatment credibility, treatment satisfaction)?

3) Will patients who report engaging with the online MI resource compared to those who do not report greater improvements in depression, anxiety and disability?

4) Will patients who report engaging with the MI resource report using the MI resource to make changes and positively evaluate the resource while identifying strengths and weaknesses of the resource?

The study was primarily exploratory in nature as there is no other research to draw on to know how often the resource would be used, what demographic/clinical characteristics may be associated with use and outcomes, and how the resource would be used and evaluated. The information in this study was designed to gather descriptive information that will inform future practice and research on use of an MI resource. Although there are no existing studies examining the integration of an MI resource during the ICBT course, consistent with the theory of MI, it was hypothesized that the optional MI resource would be associated with improved engagement (e.g., number of lessons completed, log-ins, phone calls and messages to therapist and days between first and last log-in) (Randall & McNeil, 2017; Soucy et al., 2021) and improved outcomes (e.g., greater reductions in depression, anxiety, disability) from pre-treatment to post-treatment (Randall & McNeil, 2017).

Chapter Three: Methods

3.1 Design and Ethics

This study made use of data collected as part of routine service delivery at the Online Therapy Unit. The use of data for research purposes was approved by Research Ethics Board at
the University of Regina (REB file: 2019-197). The approval and amendment can be seen in Appendix A and Appendix B.

3.2 Participants

3.2.1 Recruitment

Patients learned about the Online Therapy Unit and the Wellbeing Course through a variety of sources including: mental health and medical professionals, word of mouth and presentations, online searches and email announcements, as well as other sources of referral such as media and posters (Hadjistavropoulos et al., 2020). All patients began by applying for ICBT through the Online Therapy Unit website (www.onlinetherapyuser.ca).

3.2.2 Sample Size

For this study, we included all patients (N= 763) who were scheduled to start and actually began ICBT between December, 2020 and July 5, 2021 (screening for treatment took place between December 17, 2020 and June 29, 2021). A 6-month time frame was chosen to allow for an initial evaluation of patterns of use of the MI resource.

3.2.3 Eligibility Criteria

To be eligible for the Wellbeing Course and thus the current analyses, patients had to report on their screening questionnaire (Appendix C) that they were: (a) 18 years of age or older at time of screening; (b) experiencing at least mild symptoms on measures of depression and anxiety (see below); (c) comfortable using and had secure access to the internet; (d) living in Saskatchewan for the 8-week treatment; (e) able to provide a medical contact in case of emergencies; and (f) interested in, and willing to consent to ICBT.

3.2.4 Exclusion Criteria
Patients were excluded from ICBT if: (a) they were experiencing severe problems with drugs and or alcohol; (b) had unmanaged psychosis or mania; (c) were assessed as at high risk of suicide; or (d) were receiving mental health services from another provider more than twice per month. See Figure 1 for patient flowchart.

3.3 Measures

While patients completed a variety of measures as part of the Wellbeing Course, the current study made use of measures described below. Demographics were measured at screening. The measures of depression, anxiety and disability were administered at screening and 8-weeks post-treatment. MI evaluation questions and treatment satisfaction questions were administered at post-treatment.

3.3.1 Demographics

Patient demographic variables (Appendix C, were recorded at screening and included age, gender, marital status, education, employment status, ethnicity, location, and mental health characteristics.

3.3.2 Patient Health Questionnaire (PHQ-9; Kroenke et al., 2001)

The PHQ-9, is a validated self-report questionnaire that consists of nine items and is intended to measure the severity of depression (Kroenke et al., 2001). Answers were rated on a scale from 0 to 3, with a total score ranging from 0 to 27 (Kroenke et al., 2001). When a patient scores 5 or lower, it indicates minimal depression (Manea et al., 2012). Conversely, a score of 10 or more suggests a potential diagnosis of depression (Manea et al., 2012).

3.3.3 Generalized Anxiety Disorder (GAD-7; Spitzer et al., 2006)

The GAD-7 is a self-report questionnaire that measures the acuteness of anxiety and
1294 individuals completed the online screening for the Wellbeing Course (December 17th, 2020 – June 29th, 2021)

**Unsuccessful Application (n = 255)**
- Not from/residing in Saskatchewan (n = 92)
- Not experiencing anxiety or depression (n = 61)
- No consent or medical contact (n = 32)
- Do not have time to work on the course (n = 29)
- No computer/Internet access (n = 15)
- Not comfortable using the Internet/emails (n = 14)
- Under 18 years of age (n = 12)

**Met Initial Inclusion Criteria (n = 1039)**

**Completed Telephone Interview (n = 901)**

**Unsuccessful Telephone Interview (n = 102)**
- Risk of suicide/severe symptoms (n = 33)
- Alcohol or drug problem (n = 31)
- Concerns about medical contact/unwilling to provide HCN# (n = 7)
- Hospitalized/ER visit in last year (n = 6)
- Mental health treatment more than 2x/month (n = 6)
- Concerns about online therapy and format of treatment (n = 5)
- Wants primary help with another condition (n = 3)
- Out of province during treatment period (n = 3)
- Schizophrenia or psychosis (n = 3)
- Already enrolled in a Wellbeing Course (n = 2)
- Interfering medical condition (n = 1)

**Excluded (n = 6)**
- Accepted into a different Wellbeing Course (n = 6)

**Accepted into Wellbeing (n = 793)**

**Preference Trial (n = 676)**
- Eligible Total (n = 652)
- Did not start (n = 24)

**Non-Clinical Optional Support [No Preference] Trial (n = 117)**
- Did not start (n = 6)

**n = 763 Eligible Clients**

**Accessed MI (n = 102)**
- Accessed Lesson 4 (n = 99; 97.1%)
- Accessed Lesson 5 (n = 98; 96.1%)

**Did not Access MI (n = 378)**
- Accessed Lesson 4 (n = 353; 93.4%)
- Accessed Lesson 5 (n = 323; 85.4%)

**Questionnaire Non-Responders (n = 283)**
- Accessed Lesson 4 (n = 110; 38.9%)
- Accessed Lesson 5 (n = 52; 18.4%)

8-week follow-up
Completed primary measures
(n = 102; 100%)

8-week follow-up
Completed primary measures
(n = 377; 99.7%)

8-week follow-up
Completed primary measures
(n = 35; 12.4%)

**Figure 1**
Patient Flowchart
consists of seven items (Spitzer et al., 2006). The total score can range from 0 to 21. Scores of 5 or below are indicative of minimal anxiety, whereas scores 10 or above suggest clinically significant symptoms of anxiety (Spitzer et al., 2006).

3.3.4 Sheehan Disability Scale (SDS; Sheehan, 1983)

The SDS is a validated measure consisting of three items and was developed to determine functional impairment in work, school, social and family life (Sheehan, 1983). Items are rated from 0 to 10, which results in a total score ranging from 0 to 30.

3.3.5 MI Evaluation Survey

Of particular relevance to the study, patients were asked to complete a post-treatment survey related to the Building Motivation resource (Appendix D). Patients were asked if they reviewed the Building Motivation Resource during the Wellbeing Course (“Yes” or “No”), and if so, how much effort they put into working on the resource (1- “None at all” to 7- “A great deal”). Patients were also asked how understandable the resource was (1- “Not at all” to 7- “Very”) as well as if they learned something new from accessing it (1- “Not at all” to 7- “Very”). Further questions prompted the patient to rate how helpful they found the resource (1- “Not at all” to 7- “Very”) and whether it was worth their time (“Yes” or “No”). Patients were also asked to provide feedback on what they liked and disliked about the resource (open-ended) as well as any changes that occurred as a result of reviewing the Building Motivation resource. They were then asked to describe these changes in more detail (open-ended).

3.3.6 Treatment Satisfaction Questionnaire

At post-treatment, patients were prompted to rate their treatment satisfaction (Appendix E) in terms of how satisfied they were with treatment on a 5-point scale (1- “very dissatisfied”,
5- “very satisfied”). They were also asked whether the treatment was worth their time (“Yes” or “No”) and if they would feel confident in recommending the treatment to a friend (“Yes” or “No”). Patients also rated the extent to which the course impacted their levels of confidence in managing their symptoms, as well as their motivation to seek treatment in the future on a 5-point scale (1- “greatly reduced”, 5- “greatly increased”).

3.3.7 Engagement

Engagement was tracked automatically by the treatment platform and involved measuring the number of patients who accessed each lesson, as well as number of emails sent to therapist, emails from therapist, phone calls with therapist, and the number of log-ins to the website.

3.4 Intervention

3.4.1 The Wellbeing Course

All patients in this study received the same ICBT course, called the Wellbeing Course, which was developed by the eCentreClinic at Macquarie University in Sydney, Australia (Titov et al., 2015). The course contained five lessons that covered (1) the cognitive behavioural model and symptom identification; (2) thought monitoring and challenging; (3) de-arousal strategies and pleasant activity scheduling; (4) graduated exposure; and (5) relapse prevention. Each lesson included psychoeducational material in the format of a slideshow, stories from other patients, and materials and assignments that can be downloaded to facilitate the acquisition of skills. Extra resources were also available for patients to access at any time related to a variety of topics (i.e., assertiveness, communication skills, managing beliefs, mental skills, managing panic attacks, managing PTSD, sleep, structured problem solving, managing alcohol use, sleep, workplace management and motivation). Therapists mentioned the availability of these resources during the first message to patients and at week 5 to see if patients had any questions about the resources.
3.4.2 Building Motivation Resource

The Building Motivation Resource was offered to patients in this study and can be seen in Appendix F. The resource consisted of 10 pages with 8 sections developed to help patients increase and maintain their motivation. The first section defined motivation in relation to emotional wellbeing and highlighted the continuously changing nature of motivation to the patients. The patients were then prompted to think about their goals and intentions in taking the course and how those goals align with their values. The next page contained an exercise in which the patients were prompted to imagine that they were at their 85th birthday and were being honoured by three important people in their life. This exercise is meant to encourage the patients to think about their long-term goals, related to who they are and what they hope to achieve. The next section encouraged patients to examine their behaviours and their tendency to engage in negative self-talk which can be a hindrance to maintaining motivation. This was done by having patients reflect on ways in which their behaviours and thoughts may conflict with their previously outlined values. Furthermore, patients learned how to recognize ways in which these thoughts and behaviours adversely influenced their motivation. Finally, patients were asked to look back on their accomplishments and positive ways in which they handled challenging experiences in the past, and how they can use those skills to shape their future. In doing so, patients learned how to work on goals that align with their values and were reminded of the aspects of the self that are within their control.

3.4.3 Therapist Support

At the beginning of the ICBT course, patients were assigned a designated therapist with either optional or regular weekly support. More specifically, all patients who scored in the non-clinical range on both the depression and anxiety measures described above were offered
optional support, whereas patients who were in the clinical range on the measures were able to choose optional weekly support or regular weekly support. In both cases, patients were free to email their therapist at any point during the ICBT program. In regular weekly support, therapist emailed the patients once a week on a designated day regardless of whether the patient had sent an email to the therapist. In optional weekly support, the therapist only emailed the patient if the patient had sent an email or if patients exhibited increased symptoms. Optional support still limits contact to a maximum of once per week and is always on the same day. In the case of optional or regular weekly support, phone calls were rare and typically only made if the patient the therapist deemed a phone conversation clinically necessary based on an increase of five or more points increase on the PHQ-9 or GAD-7, increased suicide risk, or communication with the patient online. In regular weekly support, the therapist would also call the patient if they had not logged on for at least 7 days.

3.5 Statistical Analyses

3.5.1 Comparisons based on Accessing the MI Resource

Descriptive statistics were used to examine the percentage of patients who reported accessing the MI resource, not accessing the MI resource, and those who did not respond to the questionnaire at all. A series of one-way ANOVAs and chi-square tests were then used to compare these three groups on both categorical and continuous demographic variables at pretreatment. If the findings were significant, post hoc analyses were used to find where the group differences existed. Subsequently, we compared only the groups that reported accessing or not accessing the MI resource on anxiety, depression, and disability change scores using one-way ANOVAs. It is important to note that negative change scores were indicative of an improvement in symptoms. Additionally, to measure treatment engagement and satisfaction between those
who accessed the MI resource compared to those who did not access the MI resource, we used chi-square tests and independent samples t-tests at post-treatment.

3.5.2 Patient Evaluations of the MI Resource

In order to examine patient perceptions of the MI resource, we explored the means and standard deviations of the quantitative responses to the forced-choice questions. Additionally, we used a conventional content analysis approach to examine responses to the open-ended questions (Hsieh & Shannon, 2005). This involved three coders (S.H., V.P. and H.H.) who met prior to coding to read through all of the responses and create general themes and subthemes about what patients liked and disliked about the resource, as well as any changes patients made in response to the resource. The initial coder S.H. then coded each patient response into one or more of the established themes or sub-themes using the computer program Excel. S.H. ensured the categorization was derived directly from the patients’ exact words (Hsieh & Shannon, 2005). The second coder V.P. then reviewed the existing codes that were assigned by S.H. and provided feedback regarding their own coding of the patient responses. This process continued until there were no discrepancies between the two coders categorization of the responses and they agreed upon all resulting codes.

Chapter Four: Results

4.1 Patient Characteristics at Pre-treatment

Of the 763 people in the sample, 102 patients reported accessing the MI resource (13.4%), 378 reported not accessing the MI resource (49.5%) and 283 did not respond to the questionnaire (37.1%). See Table 1 for a summary of patients’ demographic and clinical characteristics at pre-treatment overall and by these three groups. Overall, the mean age was 37.67 years ($SD = 13.98$) and the majority of patients were female ($n = 589, 77.2\%$). Over half
Table 1

**Patient characteristics at pre-treatment**

<table>
<thead>
<tr>
<th>Variable</th>
<th>All patients (N = 763)</th>
<th>Accessed MI resource (n = 102)</th>
<th>Did not access MI resource (n = 378)</th>
<th>Questionnaire Non-Responders (n = 283)</th>
<th>Statistical Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age Mean (SD)</td>
<td>37.67 (13.98)</td>
<td>41.95 (15.07)</td>
<td>38.93 (14.48)</td>
<td>34.46 (12.13)</td>
<td>$F_{(2,762)} = 14.961$, $p &lt; .001$</td>
</tr>
<tr>
<td>Age Range</td>
<td>18-82</td>
<td>19-78</td>
<td>18-82</td>
<td>18-77</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$\chi^2_{(2,762)} = 1.540$; $p = .46$</td>
</tr>
<tr>
<td>Male</td>
<td>163 (21.4)</td>
<td>22 (21.6)</td>
<td>74 (19.6)</td>
<td>67 (23.7)</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>589 (77.2)</td>
<td>78 (76.5)</td>
<td>298 (78.8)</td>
<td>213 (75.3)</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>11 (1.4)</td>
<td>2 (2.0)</td>
<td>6 (1.6)</td>
<td>3 (1.1)</td>
<td></td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$\chi^2_{(2,763)} = 8.759$; $p = .07$</td>
</tr>
<tr>
<td>Single/never married</td>
<td>251 (32.9)</td>
<td>34 (33.3)</td>
<td>108 (28.6)</td>
<td>109 (38.5)</td>
<td></td>
</tr>
<tr>
<td>Married/common-law</td>
<td>452 (59.2)</td>
<td>57 (55.9)</td>
<td>240 (63.5)</td>
<td>155 (54.8)</td>
<td></td>
</tr>
<tr>
<td>Separated/divorced/widoweda</td>
<td>60 (7.9)</td>
<td>11 (10.8)</td>
<td>30 (7.9)</td>
<td>19 (6.7)</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$\chi^2_{(2,763)} = 15.762$; $p &lt; .001$</td>
</tr>
<tr>
<td>Less than high school/High</td>
<td>398 (52.2)</td>
<td>49 (48.0)</td>
<td>175 (46.3)</td>
<td>174 (61.5)</td>
<td></td>
</tr>
<tr>
<td>school diploma/some college</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>or university</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post high school certificate/</td>
<td>365 (47.8)</td>
<td>53 (52.0)</td>
<td>203 (53.7)</td>
<td>109 (38.5)</td>
<td></td>
</tr>
<tr>
<td>diploma</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$\chi^2_{(2,763)} = 2.718$; $p = .26$</td>
</tr>
<tr>
<td>Employed (part-time/full-time)</td>
<td>383 (50.2)</td>
<td>45 (44.1)</td>
<td>187 (49.5)</td>
<td>151 (53.4)</td>
<td></td>
</tr>
<tr>
<td>Unemployed (Homemaker, Student, Disability, Retired)</td>
<td>380 (49.8)</td>
<td>57 (55.9)</td>
<td>191 (50.5)</td>
<td>132 (46.6)</td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$\chi^2_{(2,763)} = 9.026$; $p = .01$</td>
</tr>
<tr>
<td>Caucasian</td>
<td>661 (86.6)</td>
<td>96 (94.1)</td>
<td>331 (87.6)</td>
<td>234 (82.7)</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>102 (13.4)</td>
<td>6 (5.9)</td>
<td>47 (12.4)</td>
<td>49 (17.3)</td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### MOTIVATIONAL INTERVIEWING IN ONLINE THERAPY

<table>
<thead>
<tr>
<th>Location</th>
<th>Sample Size</th>
<th>PHQ-9 Mean (SD)</th>
<th>PHQ-9 Median</th>
<th>GAD-7 Mean (SD)</th>
<th>GAD-7 Median</th>
<th>credibility Mean (SD)</th>
<th>F (2, 762)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large city (over 100,000)</td>
<td>440</td>
<td>57.7</td>
<td>65</td>
<td>63.7</td>
<td>212</td>
<td>56.1</td>
<td>163</td>
<td>57.6</td>
</tr>
<tr>
<td>Small to medium city</td>
<td>113</td>
<td>14.8</td>
<td>14</td>
<td>13.7</td>
<td>50</td>
<td>13.2</td>
<td>49</td>
<td>17.3</td>
</tr>
<tr>
<td>Small rural location (under 10,000)</td>
<td>210</td>
<td>27.5</td>
<td>23</td>
<td>22.5</td>
<td>116</td>
<td>30.7</td>
<td>71</td>
<td>25.1</td>
</tr>
</tbody>
</table>

#### Support

- **Optional**
  - Sample Size: 477
  - PHQ-9 Mean (SD): 62.5 (61)
  - PHQ-9 Median: 59.8
  - GAD-7 Mean (SD): 58.2 (196)
  - GAD-7 Median: 69.3
  - \( \chi^2 (4,763) = 8.813; \quad p = .01 \)

- **Standard**
  - Sample Size: 286
  - PHQ-9 Mean (SD): 37.5 (41)
  - PHQ-9 Median: 40.2
  - GAD-7 Mean (SD): 41.8 (87)
  - GAD-7 Median: 30.7
  - \( \chi^2 (4,763) = 8.813; \quad p = .01 \)

#### Mental Health Characteristics

- **Pre-treatment PHQ-9 \( \geq 10 \)**
  - Sample Size: 559
  - PHQ-9 Mean (SD): 73.3 (79)
  - PHQ-9 Median: 77.5
  - GAD-7 Mean (SD): 66.9 (227)
  - GAD-7 Median: 80.2
  - \( \chi^2 (2, 763) = 15.626; \quad p < .001 \)

- **Pre-treatment GAD-7 \( \geq 10 \)**
  - Sample Size: 549
  - PHQ-9 Mean (SD): 72.0 (62)
  - PHQ-9 Median: 60.8
  - GAD-7 Mean (SD): 71.4 (217)
  - GAD-7 Median: 76.7
  - \( \chi^2 (2, 763) = 9.488; \quad p = .01 \)

- **No clinical scores**
  - Sample Size: 114
  - PHQ-9 Mean (SD): 14.9 (16)
  - PHQ-9 Median: 15.7
  - GAD-7 Mean (SD): 17.7 (31)
  - GAD-7 Median: 11.0
  - \( \chi^2 (2, 763) = 5.889; \quad p = .05 \)

- **Psychotropic medication in the past 3 months**
  - Sample Size: 419
  - PHQ-9 Mean (SD): 54.9 (55)
  - PHQ-9 Median: 53.9
  - GAD-7 Mean (SD): 51.3 (170)
  - GAD-7 Median: 60.1
  - \( \chi^2 (2, 547) = 0.226; \quad p = .90 \)

- **Pre-treatment credibility**
  - Mean (SD): 20.70 (4.53)
  - F (2, 762) = .519, \( p = .60 \)

---

*Not included in Chi-square analysis due to insufficient number of patients in group*
of the patients were either in a common-law arrangement or married \((n = 452, 59.2\%)\). The sample was fairly balanced in terms of education levels. Half of the patients were employed with either part-time or full-time work \((n = 383, 50.2\%)\) and the vast majority were Caucasian/White \((n = 661, 86.6\%)\). Most lived in a large city with over 100,000 people \((n = 440, 57.7\%)\) as compared to a smaller city or rural location. Patients most commonly received optional therapist support \((n = 477, 62.5\%)\) and were experiencing pre-treatment scores in the clinical range on the PHQ-9 \((n = 559, 73.3\%)\) and the GAD-7 \((n = 549, 72.0\%)\).

There were statistically significant differences found between the three groups on age, education, ethnicity, level of therapist support, and whether pre-treatment GAD-7 and PHQ-9 scores were in the clinical range. Both, those who did, \(F(2, 762) = 14.96, p < .01\), and did not, \(F(2, 762) = 14.96, p < .01\) access the MI resource were older in age \((M = 41.95 \text{ and } 38.93\) respectively) than the non-responder group \((M = 34.46)\). Moreover, patients who accessed the MI resource tended to have higher levels of education than questionnaire non-responders \((52\% \text{ vs } 38.5\%)\), \(X^2(1, n = 661) = 14.98, p < .01\). The group who accessed the MI resource had more patients identify as “White/Caucasian” when asked about their ethnicity compared to the non-responder group \((94.1\% \text{ vs } 82.7\%)\), \(X^2(1, N = 763) = 8.00, p = .01\). Patients who did not access the MI resource more often chose standard therapist support compared with the non-responder group \((41.8\% \text{ vs } 30.7\%)\), \(X^2(1, n = 661) = 8.48, p = .004\). Those who accessed the MI resource \(X^2(1, n =480) = 4.17, p = .04\), and the non-responder group \(X^2(1, n = 661) = 14.36, p < .01\) had significantly more patients who scored in the clinical range on the PHQ-9 at pre-treatment \((77.5\% \text{ and } 80.2\%)\) than those who did not access the MI resource \((66.9\%)\). In contrast, there were fewer individuals in the group who accessed the MI resource \((60.8\%)\) with GAD-7 scores
in the clinical range, than the group who did not access the MI resource (71.4%), $X^2(1, n = 480) = 4.267, p = .04$, and the non-responder group (76.7%), $X^2(1, n = 385) = 9.49, p = .002$.

4.2 Symptom Scores

Table 2 outlines the pre-treatment, post-treatment, and change scores on measures of depression (PHQ-9), anxiety (GAD-7), and disability (SDS). At pre-treatment, there were no significant differences on the PHQ-9 ($F(1,478) = 3.88, p = .05$), GAD-7 ($F(1, 478) = 1.46, p = .23$), or SDS ($F(1, 478) = 0.44, p = .51$) between those who accessed the MI resource and those who did not. The average change score for the overall sample on the PHQ-9 was $-5.83 (SD = 5.41)$. Similarly, the GAD-7 had an overall change score of $-5.84 (SD = 5.24)$ whereas the SDS average was $-3.60 (SD = 7.93)$. Those who accessed the resource had significantly lower reductions in mental health related disability on the SDS compared to the group who did not access the MI resource, $F(1, 477) = 6.17, p = .01$. There were no significant group differences found in the change scores for the PHQ-9 and GAD-7.

4.3 Treatment Engagement and Satisfaction

Table 3 outlines the treatment engagement and satisfaction for those who accessed MI and those who did not. Overall, the mean number of messages received from therapist was 6.77 ($SD = 2.76$) and the mean number of messages sent to therapist was 2.67 ($SD = 2.84$). The average number of log-ins for all patients was 22.24 ($SD = 23.41$) and the mean number of days between the patients first and last log-in was 65.13 ($SD = 39.67$). Examining communication through the number of phone calls with the therapist, the average was 1.09 ($SD = 1.37$) calls. In terms of group differences, the group who opened the MI resource had more patients who accessed Lesson 5 than those who did not open the MI resource (96.1% vs 85.4%),
Table 2: Pre- and post-treatment symptom scores and change scores

<table>
<thead>
<tr>
<th>Variable</th>
<th>All patients (N = 763)</th>
<th>Accessed MI resource (N = 102)</th>
<th>Did not access MI resource (N = 378)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHQ-9</td>
<td>13.53 (5.61)</td>
<td>16.47 (6.67)</td>
<td>10.47 (5.04)</td>
</tr>
<tr>
<td>GAD-7</td>
<td>14.04 (5.77)</td>
<td>17.67 (6.11)</td>
<td>10.47 (5.04)</td>
</tr>
<tr>
<td>SDS</td>
<td>15.98 (6.24)</td>
<td>19.78 (6.81)</td>
<td>11.98 (5.28)</td>
</tr>
<tr>
<td>Range</td>
<td>PHQ-9</td>
<td>Valid N = 514</td>
<td>Valid N = 514</td>
</tr>
<tr>
<td>Pre-treatment</td>
<td>13.53</td>
<td>16.47</td>
<td>10.47</td>
</tr>
<tr>
<td>Post-treatment</td>
<td>6.97</td>
<td>12.67</td>
<td>6.31</td>
</tr>
<tr>
<td>Change score</td>
<td>-5.56</td>
<td>-5.84</td>
<td>-4.14</td>
</tr>
<tr>
<td>F (1, 475)</td>
<td>3.88, p = .05</td>
<td>0.70, p = .40</td>
<td></td>
</tr>
<tr>
<td>Range</td>
<td>SDS</td>
<td>15.98</td>
<td>19.78</td>
</tr>
<tr>
<td>Pre-treatment</td>
<td>15.98</td>
<td>19.78</td>
<td>11.98</td>
</tr>
<tr>
<td>Post-treatment</td>
<td>13.45</td>
<td>17.54</td>
<td>12.44</td>
</tr>
<tr>
<td>Change score</td>
<td>-2.53</td>
<td>-2.34</td>
<td>-1.04</td>
</tr>
<tr>
<td>F (1, 475)</td>
<td>1.46, p = .23</td>
<td>0.25, p = .62</td>
<td></td>
</tr>
<tr>
<td>Range</td>
<td>GAD-7</td>
<td>14.04</td>
<td>17.67</td>
</tr>
<tr>
<td>Pre-treatment</td>
<td>14.04</td>
<td>17.67</td>
<td>10.47</td>
</tr>
<tr>
<td>Post-treatment</td>
<td>12.25</td>
<td>11.58</td>
<td>6.25</td>
</tr>
<tr>
<td>Change score</td>
<td>-1.79</td>
<td>-1.89</td>
<td>-5.98</td>
</tr>
<tr>
<td>F (1, 475)</td>
<td>1.46, p = .23</td>
<td>1.44, p = .25</td>
<td></td>
</tr>
<tr>
<td>Range</td>
<td>SDS</td>
<td>15.98</td>
<td>19.78</td>
</tr>
<tr>
<td>Pre-treatment</td>
<td>15.98</td>
<td>19.78</td>
<td>11.98</td>
</tr>
<tr>
<td>Post-treatment</td>
<td>13.45</td>
<td>17.54</td>
<td>12.44</td>
</tr>
<tr>
<td>Change score</td>
<td>-2.53</td>
<td>-2.34</td>
<td>-1.04</td>
</tr>
<tr>
<td>F (1, 475)</td>
<td>1.46, p = .23</td>
<td>0.25, p = .62</td>
<td></td>
</tr>
</tbody>
</table>

Note: Non-responder group was not included in One-way ANOVA analyses due to lack of data.
### Table 3
**Treatment engagement and satisfaction**

<table>
<thead>
<tr>
<th>Variable</th>
<th>All patients (N = 763)</th>
<th>Accessed MI resource (n = 102)</th>
<th>Did not access MI resource (n = 378)</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td><strong>Engagement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accessed lesson 4</td>
<td>562</td>
<td>73.7</td>
<td>99</td>
<td>97.1</td>
</tr>
<tr>
<td>Accessed lesson 5</td>
<td>473</td>
<td>62.0</td>
<td>98</td>
<td>96.1</td>
</tr>
<tr>
<td>Mean written messages received from therapist (SD)</td>
<td>6.77</td>
<td>2.76</td>
<td>7.23</td>
<td>2.51</td>
</tr>
<tr>
<td>Mean written messages sent to therapist (SD)</td>
<td>2.67</td>
<td>2.84</td>
<td>3.95</td>
<td>3.17</td>
</tr>
<tr>
<td>Mean number of log-ins (SD)</td>
<td>22.24</td>
<td>23.41</td>
<td>27.70</td>
<td>15.44</td>
</tr>
<tr>
<td>Mean number of phone calls with therapist (SD)</td>
<td>1.09</td>
<td>1.37</td>
<td>0.95</td>
<td>1.32</td>
</tr>
<tr>
<td>Mean days between first and last log-in (SD)</td>
<td>65.13</td>
<td>39.67</td>
<td>85.34</td>
<td>30.12</td>
</tr>
<tr>
<td><strong>Satisfaction</strong></td>
<td>N = 497-498</td>
<td>N = 102</td>
<td>N = 378</td>
<td></td>
</tr>
<tr>
<td>Satisfied/very satisfied overall a</td>
<td>405</td>
<td>81.3</td>
<td>83</td>
<td>81.4</td>
</tr>
<tr>
<td>Course was worth the time (%)a</td>
<td>479</td>
<td>96.2</td>
<td>99</td>
<td>97.1</td>
</tr>
<tr>
<td>Would recommend course to friend (%)a</td>
<td>478</td>
<td>96.0</td>
<td>98</td>
<td>96.1</td>
</tr>
<tr>
<td>Increased/ greatly increased confidence$^b$</td>
<td>416</td>
<td>83.7</td>
<td>91</td>
<td>89.2</td>
</tr>
<tr>
<td>Increased/ greatly increased motivation for other treatment$^b$</td>
<td>385</td>
<td>77.5</td>
<td>78</td>
<td>76.5</td>
</tr>
</tbody>
</table>

*Note: non-responder group was not included in analyses for Treatment Satisfaction Questionnaire*

$^a n = 498$

$^b n = 497$
X^2(1, n = 480) = 8.42, p = .004. Additionally, patients who accessed the MI resource sent significantly more messages to their therapist on average, compared to the group who did not access the MI resource, (M = 3.95, SD = 3.17 vs M = 3.28, SD = 2.96; t(478) = -2.008, p = 0.045). When examining treatment satisfaction, more patients reported being satisfied or very satisfied with the course overall (n = 405, 81.3%). The majority also felt that the course was worth their time (n = 479, 96.2%) and that they would feel confident recommending this treatment to a friend (n = 478, 96.0%). Finally, most patients reported that their confidence either, increased or greatly increased (n = 416, 83.7%), as well as their motivation for other treatment (n = 385, 77.5%). No significant differences were found between the two groups on treatment satisfaction.

4.4 Evaluation of the MI Resource

Of the 102 patients who evaluated the MI resource, the majority (n = 93, 94.1%) said that it was worth their time. Where 1 is “none” and 7 is “a great deal”, the patients reported a mean of 4.78 to represent the amount of effort that they put into the resource. They also rated the understandability closer to “very” with a mean of 6.10 out of 7. Patients generally reported learning new information from the resource (M = 5.04, SD = 1.45). Finally, they rated it as being moderately helpful (M = 5.21, SD = 1.40).

4.4.1 Liked about MI Resource

Patients were asked about the most liked aspect about the MI resource and eleven diverse themes emerged in response to this question, which can be seen in Table 4. The aspect that the greatest number of patients reported enjoying, was how informative the resource was (n = 35, 45.5%). One patient called the information “eye-opening and very helpful”. Patients also liked the emphasis on establishing goals (n = 16, 20.8%) and clarifying values (n = 16, 20.8%).
Table 4

*Most Liked about the MI Resource*

<table>
<thead>
<tr>
<th>Most Liked About the Resource</th>
<th>Example</th>
<th>Patient ID</th>
<th>n = 77</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informative</td>
<td>“It is helpful information. I am fairly certain I will refer back to it.”</td>
<td>34190</td>
<td>35</td>
<td>45.5</td>
</tr>
<tr>
<td>Establishing goals</td>
<td>“It helped me find was to get up and start my day. Set goals that are achievable.”</td>
<td>33829</td>
<td>16</td>
<td>20.8</td>
</tr>
<tr>
<td>Clarifying Values</td>
<td>“The resource is great. It covered a lot of things I’ve done before. It inspired me to get back to the values and personal &quot;compass&quot; I developed some years ago.”</td>
<td>34180</td>
<td>16</td>
<td>20.8</td>
</tr>
<tr>
<td>Understanding how symptoms impact motivation</td>
<td>“Made sense of how my behaviours effect my motivation and how setting goals and determining my values can help me stay motivated to achieve what I want.”</td>
<td>34684</td>
<td>11</td>
<td>14.3</td>
</tr>
<tr>
<td>Format/structure of worksheets Resource helped improve motivation</td>
<td>“I liked the DIY sections and prompts. It was actively engaging.”</td>
<td>34880</td>
<td>9</td>
<td>11.7</td>
</tr>
<tr>
<td></td>
<td>“This resource helped me the most at the beginning of the course when I really didn’t have the energy to do anything”</td>
<td>33956</td>
<td>8</td>
<td>10.4</td>
</tr>
<tr>
<td>Easy to understand</td>
<td>“Easy to follow, understand and read”</td>
<td>34014</td>
<td>4</td>
<td>5.2</td>
</tr>
<tr>
<td>Everything</td>
<td>“i liked all of this course”</td>
<td>34204</td>
<td>2</td>
<td>2.6</td>
</tr>
</tbody>
</table>

*Note.* Each response could have more than one code assigned to it.
Another reported benefit of the resource was that it helped the patients understand how their symptoms impacted their motivation \( (n = 11, 14.3\%) \). Additionally, some patients reported liking the format and structure of the worksheets \( (n = 9, 11.7\%) \), and that the resource helped to improve their motivation \( (n = 8, 10.4\%) \). Finally, some recalled the resource being easy to understand \( (n = 4, 5.2\%) \) or liking everything about the resource \( (n = 2, 2.6\%) \). Of note, 19 patients could not provide a specific response regarding what they liked about the resource.

### 4.4.2 Disliked about MI Resource

Nine themes emerged when patients were asked what they disliked about the MI resource. Over half of the patients answered that they disliked nothing about the resource and this question did not apply to them \( (n = 58, 65.9\%) \). Some patients even took this opportunity to make further positive comments in this section with responses such as, “all information is helpful and makes a person reflect\(^3\) \( (n = 6, 6.8\%) \). In other cases, patients shared that their symptoms had interfered with their ability to use the resource \( (n = 5, 5.7\%) \). One patient noted that when attempting to utilize the suggestions and information the resource provided, their symptoms caused them to “sit and stare” at the motivational activity even though they claimed, “I want to do it, but I feel like physically, I just cannot\(^4\)”. Patients also noted that they needed to review the resource again in order to answer this question accurately or that they could not respond to the question without reviewing the resource again \( (n = 4, 4.5\%) \).

As outlined in Table 5, only 15.9\% \( (n = 14) \) of patients identified something that they did not like about the resource. These opinions were highly divergent, ranging from the amount of information being too much \( (n = 3, 3.4\%) \), or too little \( (n = 3, 3.4\%) \). This caused patients to give responses such as, “There is a lot of work i have to do for that lesson. It makes me feel overwhelmed\(^5\)”, or the resource “could have been more detailed\(^6\)”. Some discussed how
### Table 5

**Disliked about the MI Resource**

<table>
<thead>
<tr>
<th>Disliked about the Resource</th>
<th>Example</th>
<th>Patient ID</th>
<th>n = 88</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nothing/Not applicable</td>
<td>“Nothing of note.”</td>
<td>34658</td>
<td>58</td>
<td>65.9</td>
</tr>
<tr>
<td>Positive comment</td>
<td>“I liked this resource and read through it more than once”</td>
<td>33956</td>
<td>6</td>
<td>6.8</td>
</tr>
<tr>
<td>Symptoms interfered with ability to engage with resource</td>
<td>“I understand that according to the resource I have to be active in order to gain motivation, however without reason to do things I feel like my brain is blocked. Even if I get myself into position to draw, play a video game, or whatever else, since I don't have a reason I just have no interest at all in doing said activity, and like I will literally sit and stare at it, knowing I want to do it, but I feel like physically, I just cannot.”</td>
<td>34796</td>
<td>5</td>
<td>5.7</td>
</tr>
<tr>
<td>Need to review again</td>
<td>“Again I felt as if I was pressed for time I wish I could have put more time into this. I plan on looking over these exercises again once this course is over so I can absorb more of the details.”</td>
<td>34794</td>
<td>4</td>
<td>4.5</td>
</tr>
<tr>
<td>Too much work/Overwhelming</td>
<td>“There is a lot of work I have to do for that lesson. It makes me feel overwhelmed.”</td>
<td>33961</td>
<td>3</td>
<td>3.4</td>
</tr>
<tr>
<td>Content was not relevant to their experience</td>
<td>“I don't think it really applied to my situation that much”</td>
<td>34854</td>
<td>3</td>
<td>3.4</td>
</tr>
<tr>
<td>Lack of new information</td>
<td>“I don't think I learned much from it as it was things I had already learned.”</td>
<td>33995</td>
<td>3</td>
<td>3.4</td>
</tr>
<tr>
<td>Not enough information</td>
<td>“Compared to some of the other resources this was one was shorter.”</td>
<td>34791</td>
<td>3</td>
<td>3.4</td>
</tr>
<tr>
<td>Format/Structure of the worksheets</td>
<td>“That I couldn't fill it in on the computer”</td>
<td>34829</td>
<td>2</td>
<td>2.3</td>
</tr>
</tbody>
</table>

*Note. Each quote could have more than one code assigned to it.*
the content was not relevant to their experiences ($n = 3, 3.4\%$) or that there was not any new information provided in the resource ($n = 3, 3.4\%)$. Two patients (2.3\%) also commented on the format and structure, reporting that they “learn best when the information is given in an interactive manner” and that they would have preferred if they were able to “fill it in on the computer”.

### 4.4.3 Changes Made as a Result of the MI Resource

As seen in Table 6, the majority of patients reported that they made a change as a result of the resource ($n = 66, 70.2\%)$. One of the most common changes patients made in response to the MI resource was that they now had greater awareness of how their symptoms impacted their levels of motivation and how to use the skills that were developed from the course to address their symptoms ($n = 23, 24.5\%)$. Changes that were reported were highly diverse in nature.

Seventeen patients (18.1\%) explicitly included goals that they were completing that were related to multiple domains. These goals fell under the sub-categories of physical health ($n = 7, 41.2\%)$, social life ($n = 6, 35.3\%)$, leisure activities ($n = 4, 23.5\%)$, chores/housework ($n = 3, 17.6\%)$, and work/career ($n = 2, 11.8\%)$. In contrast, nineteen patients (20.2\%) reported not making any changes. Some said they were continuing to try to make changes but had not done so yet ($n = 10, 10.6\%)$ and eight patients (8.5\%) expressed uncertainty about whether they had made changes, feeling they would need to review the resource again in order to answer this question.
Table 6.  

Changes Made as a Result of the MI Resource

<table>
<thead>
<tr>
<th>Changes Made as a Result of the MI Resource</th>
<th>Example</th>
<th>Patient ID</th>
<th>n = 94</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>“I’m making changes.”</td>
<td>34368</td>
<td>66</td>
<td>70.2</td>
</tr>
<tr>
<td>Greater awareness of how symptoms impact motivation and how to use skills from the course to address symptoms</td>
<td>“I addressed my negative thoughts that were decreasing my motivation with thought challenging.”</td>
<td>34829</td>
<td>23</td>
<td>24.5</td>
</tr>
<tr>
<td>No</td>
<td>“I attempted to, but employment demands (including frustrations) have prevented me to dedicate the time I need to fully utilize what the resources provides.”</td>
<td>34412</td>
<td>19</td>
<td>20.2</td>
</tr>
<tr>
<td>Working on breaking down goals into smaller steps</td>
<td>“Broke goals down into smaller steps and reached for those smaller goals to build to bigger ones, increasing my motivation and well-being.”</td>
<td>34424</td>
<td>12</td>
<td>12.8</td>
</tr>
<tr>
<td>Generic comment about working on the exercises from the resource</td>
<td>“Worked through the papers”</td>
<td>34956</td>
<td>12</td>
<td>12.8</td>
</tr>
<tr>
<td>Trying</td>
<td>“I will try.”</td>
<td>34684</td>
<td>10</td>
<td>10.6</td>
</tr>
<tr>
<td>Increased focus on values</td>
<td>“Yes, I reincorporated my values and personal &quot;compass&quot; as part of my morning meditation routine.”</td>
<td>34180</td>
<td>7</td>
<td>7.4</td>
</tr>
<tr>
<td>I don’t know/I need to review resource again</td>
<td>“Need to read again”</td>
<td>35068</td>
<td>8</td>
<td>8.5</td>
</tr>
</tbody>
</table>

Client included a goal

<table>
<thead>
<tr>
<th>Client included a goal</th>
<th>Example</th>
<th>Patient ID</th>
<th>n =17</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Health</td>
<td>“Better adherence to my health goals and eating plan.”</td>
<td>34803</td>
<td>7</td>
<td>41.2</td>
</tr>
<tr>
<td>Social</td>
<td>“started attending a game night”</td>
<td>35458</td>
<td>6</td>
<td>35.3</td>
</tr>
<tr>
<td>Leisure Activities</td>
<td>“I made a list of things I really enjoy doing (big or small) and try to do at least one thing a day. Walking, riding, reading, painting, baking, chatting with friends on FaceTime...even one thing a day feels like a win to me.”</td>
<td>34806</td>
<td>4</td>
<td>23.5</td>
</tr>
<tr>
<td>Chores/Housework</td>
<td>“I have been able to push past my usual way of doing things and started going for walks nearly every morning, I have also been working on not letting housework slide for long that I would normally let go on longer than I should like maintenance on the fish tanks and laundry.”</td>
<td>35301</td>
<td>3</td>
<td>17.6</td>
</tr>
<tr>
<td>Work/Career</td>
<td>“While I have been doing this course I have been pursuing a career change, applying for jobs, writing cover letters, and using the graded exposure technique to prepare for a potential job interview. I felt proud today when I answered the survey and was able to say that I've recently been taking steps towards living the life I want and working towards my goals.”</td>
<td>33952</td>
<td>2</td>
<td>11.8</td>
</tr>
</tbody>
</table>

*Note.* Each quote could have more than one code assigned to it.
Chapter Five: Discussion

ICBT is an accepted form of treatment for anxiety and depression that is just as effective as traditional face-to-face CBT (Carlbring et al., 2017). However, like any form of therapy, there remains an issue of helping patients maintain motivation and commitment to their treatment program (van Ballegooijen et al., 2014). A possible way to address this issue is by integrating an MI resource into ICBT. Although MI has been used to address attrition in face-to-face therapy, it might have the potential improve adherence to ICBT as well. Thus far, there has been evidence for increased engagement, but not greater treatment outcomes when integrating an MI resource at pre-treatment for ICBT (Soucy et al., 2021; Randall & McNeil, 2017). Despite being unsuccessful in improving treatment outcomes, Soucy et al. (2021) found interesting evidence suggesting that motivational decline could potentially be more likely to occur during, as opposed to before treatment.

Based on the existing literature regarding MI and ICBT, the current study explored the use of a MI resource called the Building Motivation Resource, during treatment when motivation may begin to decline. To investigate the potential utility of this resource, we used data from 763 patients enrolled in ICBT. Of those 763 patients, 102 (13.4%) reported accessing the resource, 378 (49.5%) reported not accessing it, and 283 (37.1%) patients did not complete the post-treatment questionnaire. The questionnaire was designed to gain feedback on the MI resource regarding patient satisfaction in order to inform future adaptations. This study aimed to uncover how many patients would report engaging with the MI resource as well as characteristics that may influence a patient to pursue additional motivational supports. We also examined whether change scores in symptoms of depression, anxiety and disability, would be different between those who accessed the MI resource compared to those who did not. Finally, we hoped to gain
patient evaluations of the resource from those who reported accessing it to inform future use of
the MI resource.

5.1 Main Findings

5.1.1 Engagement with MI Resource

It was found that at post-treatment, 102 (13.4%) patients reported engaging with the MI
resource at some point during treatment. Complicating the assessment of the use of these
measures, nearly a third of clients did not respond to the questionnaire making it impossible to
know whether the resource had been used by patients. Although we were are unable to make
interpretations about the non-responder group regarding their engagement with the MI, the
engagement we observed from patients who reported accessing it was significant based on the
MI evaluation questionnaire (as described in further detail below).

5.1.2 Variables Associated with Engagement of MI

Using quantitative analysis, we were able to determine how patients who accessed the MI
differed on demographic and clinical characteristics compared to those who did not report
accessing the MI. Those who accessed MI had significantly more patients scoring in the clinical
range on the PHQ-9 than the group who did not access the MI resource. However, it was also
found that the group who accessed the MI resource fewer patients scoring in the clinical range on
the GAD-7. These findings are consistent with past literature, as loss of motivation is a
characteristic feature of depression and not anxiety (Smith, 2012).

5.1.3 Engagement with the course

There were further significant findings in the overall engagement of the course such as
number of lessons completed and number of messages sent to a therapist. Patients who engaged
with the MI resource were more likely to access the final lesson of the program compared to those who did not access the MI resource. These results aligned with past face-to-face literature which suggests that MI leads to increases in adherence to treatment (Randall & McNeil, 2017). It is also consistent with the Soucy et al., findings that patients who accessed MI, spent more days enrolled in ICBT. Additionally, patients who accessed the MI resource sent more messages to therapists than those who did not access the MI resource. When examining these findings together, it seems that the group who accessed the MI were slightly more engaged with not only the MI resource, but treatment overall. It is important to note that the findings are correlational in nature. While it could be that using the MI resource is helpful for improving engagement, it is also possible that more engaged patients are simply more likely to use the additional resource.

5.1.4 Symptom Improvement

We hypothesized that those who accessed the MI resource would experience greater improvements on depression, anxiety and disability. Contrary to our expectations, those who accessed the MI resource had significantly smaller reductions in mental health related disability on the SDS compared to those who did not access the MI resource at post-treatment. This finding was unexpected and not consistent with our original hypothesis. A possible explanation for this differing finding could be that patients who did not access the MI, were doing better in terms of functioning and perhaps were in less need of the resource.

5.1.5 Patient Use and Satisfaction with the MI Resource

Patients reported putting in 4.78 (SD = 1.40) amount of effort into the MI resource, where 1 is “none” and 7 is “a great deal”. Those who report engaging with the MI resource positively evaluated the resource and identified more strengths than weaknesses. Since this was the first time implementing this particular MI resource into ICBT, we had no hypotheses
regarding the evaluation of it. However, it was found that 94.1% who reported accessing the MI positively evaluated the resource saying it was worth their time. The strengths of the resource were aspects relating to the information that was given, the format and structure the resource had, and ease of comprehension. Patients also enjoyed the focus on goal setting, values, and improving motivation. It also allowed patients to better understand how symptoms affect levels of motivation. It is notable that 70.2% said they made a positive change as a result of this resource.

Among the 15% of negative comments identified, the feedback was far too divergent to make any specific changes to the resource. For instance, weaknesses reported were related to there being too much or too little information, or no new information at all. Despite these negative aspects identified with the resource, there was not one theme that was more disliked than the other. Three responses fell into each category on information quality and quantity, suggesting that the information was fairly balanced. Two patients reported disliking the format and structure, and offered suggestions that would make the resource easier to use. As the vast majority of clients who engaged with it had a positive experience and positively evaluated it, the benefits of the resource outweighed the weaknesses, as many positive changes were made as a result of this resource. Despite the smaller portion of individuals who engaged with the resource, it would be worthwhile to continue to develop it in order to maximize patient benefit. This could be done by allowing patients to fill in the resource on their computer and encouraging them to submit their responses afterwards. In doing so, therapists would gain further information on general utility and engagement with the MI resource and would then be in a position to better support their patients in using the course to improve their wellbeing.

5.2 Study Limitations
One of the major limitations of this study was that 37.1% of patients did not respond to the questionnaire about the MI resource. We cannot really draw many conclusions from this non-responder group, except that we know this group tended to be younger and more likely to choose optional therapist support, than the other two groups. They also tended to be less educated and more diverse in terms of ethnocultural background compared to those who completed the MI resource, and more depressed and anxious compared to those who did not complete the resource. Due to this, it remains unclear if more patients meaningfully engaged with the resource that did not complete the post-treatment MI resource survey. Further lack of data was related to timing, as we did not record at what time points patients opened the resource. This information would have been beneficial in determining whether patients opened the resource near the beginning, middle or end of treatment. As a result, therapists would be able to gain a better understanding of when patients tended to decrease in motivation during treatment, which could inform future timelines of offering MI. Another limitation pertains to the lack of a weekly measure of motivation which would have helped us explore if motivation reduced over time. Ideally, we would have been able to examine if change in motivation proceeded opening the resource and if motivation increased after the resource was accessed. In terms of engagement, it is currently unclear how much the patients who did access the resource actually engaged with it. Theoretically, they may have just opened the resource without really interacting with the material.

We also found that it was difficult to know how much of the resource that the patients remembered as the survey was conducted sometime after they had viewed the resource and some responded that they had forgotten and needed to review the resource again ($n = 24$, 8.6%). Therefore, it may have been helpful to have administered the questionnaire shortly after viewing
the MI resource. The correlational nature of study also makes it so that it is not possible to know whether the MI resource resulted in increased engagement or motivation. A randomized controlled trial that compares those who receive the MI resource and those who do not would be needed to better examine the impact of the MI resource on engagement and outcomes. Such a study, however, would require a very large sample since only 15% of all patients report accessing the resource. To further examine the benefits of the resource, it may be advantageous to opt for a longer follow-up period than 8-weeks in order to gain a better understanding of the lasting effect of the MI resource that were not examined in this study.

5.3 Study Strengths

Past research suggested that the administration of an online MI resource at pre-treatment was associated with engagement in ICBT but was not associated with improved outcomes (Soucy et al., 2021). Therefore, the present study built upon the existing literature in order to explore the potential utility of an MI resource offered during the course of ICBT which has not been done before. As this was an exploratory study and the first to examine this particular MI resource during ICBT treatment, it has the potential to inform future research. We captured helpful information regarding how often such a resource would be used, who would use the resource, as well as correlates of using the resource. Furthermore, we gained valuable qualitative and quantitative information regarding how the resource was used and the strengths and weaknesses of the resource. These opportunities for feedback allowed patients to expand on their reasoning behind liking or disliking the resource as well as what areas could be improved for future implementation studies.

Another strength of this study was the large sample size with 763 overall patients. Therefore, we were able to obtain a more comprehensive idea of the strengths and weaknesses of
the proposed MI placement with diverse feedback from many patients. Although only 102
patients actually reported reviewing the resource, those who reported reviewing it were satisfied
with the resource and rated it as being worth their time. Those who accessed the MI resource also
had a higher treatment completion rate than the rest of the sample which indicates that it was
associated with improved treatment adherence.

5.4 Future Directions

Although this study was valuable in expanding upon the existing research related to
implementing MI into ICBT, further research needs to be conducted using random assignment to
determine a cause-and-effect relationship. As the research is correlational, using random
assignment would control for confounding variables and provide more concrete interpretations of
the results. A possible future investigation could be to examine how the extent of engagement
with the resource contributes to treatment engagement and outcomes. This way we could make
inferences based on how much they are engaging with both the resource, and their treatment. In
the current study, we do not have an objective measure of the extent that patients were engaged
with the resource, as it was entirely based on self-report. Therefore, a possible adaptation to this
study would be for patients to submit their work on the MI resource to receive feedback from
their therapist. This way therapists can obtain more information and could help the individual get
specialized treatment that targets their specific needs, while also evaluating the level of effort
they are putting into the resource. In line with this, it would have been advantageous to have
included a fillable resource to gain insight into patients’ utilization of the resource. In hindsight,
we also should have asked patients what made them want to look at the resource. This could
contribute to the research regarding the mechanisms that underlie motivational decrease and
predictors of use. A study that includes a weekly measure of motivation would also be beneficial
in order to assess motivation over time and see how much it improved over the course. This would also allow us to see if those with lower motivation towards the beginning of the course, would be the ones who end up opening the resource sooner, and if motivation improves after accessing the resource.

Another suggested course of research would be to assess the impact of whether a patient self-selects to access the resource as opposed to having a therapist recommend that they access the resource. As the current study was self-selective it may be of interest in the future to conduct a trial in which the therapist only offers it to those who are becoming less engaged with treatment. Alternatively, therapists could also experiment with different delivery methods of MI, such as administering MI phone calls in their weekly meeting in order to gauge patients’ motivation levels.

5.5 Conclusion

In conclusion, the rates of attrition in ICBT remain an issue and further optimization of MI may address this concern. Past literature regarding MI has proven that it is an effective way for increasing motivation in face-to-face therapy settings (Randall & McNeil, 2017). For the first time, we investigated what the uptake of an optional MI resource during ICBT would look like. We found that approximately 15% reported accessing the MI resource with the majority rating it positively and making diverse changes in response to it. Additionally, we found that those higher in depression were more likely to use it and that it was associated with less improvement in mental health related disability. The reported strengths and limitations of this study could inform future changes and overall integration of MI in ICBT. Future trials should expand upon this exploratory study of the integration of an MI in ICBT by employing more rigorous research methods in order to control for possible confounds and improve patient experience with the MI
resource. Accordingly, MI could provide promising results in decreasing attrition rates in ICBT, while leading to better patient outcomes.
References


*Qualitative Health Research, 15*(9), 1277–1288. https://doi.org/10.1177/1049732305276687


https://doi.org/10.1097/hrp.000000000000139
Appendices

Appendix A: Research Ethics Board Certificate of Approval

Research Ethics Board
Certificate of Approval

PRINCIPAL INVESTIGATOR: Dr. Heather Hadjistavropoulos
DEPARTMENT: Department of Psychology
REB#: 2019-197

TITLE:
Optimizing duration of therapist-guided Internet-delivered cognitive behaviour therapy for depression and anxiety

APPROVED ON: December 9, 2019
RENEWAL DATE: December 9, 2020

APPROVAL OF:
Application for Behavioural Research Ethics Review
Information & Consent Form for the Wellbeing Course Screening

Basic Eligibility Questionnaire
Telephone Screen
Consent form: Standard
Consent form: Booster Extend
GAD7 measure
Panic Disorder Severity Scale
P15D Checklist 5
Mental Health Service Use
Working alliance SR measure

Full screen Questionnaire
Consent form: Extend
Consent form: Booster
PHQ5 Measure
Homework Reflection Questionnaire
Social Interaction Anxiety Scale 6
EQ-SID-5L
Treatment satisfaction
Confidentiality Agreement

☑ Full Board Meeting
☐ Delegated Review

The University of Regina Research Ethics Board has reviewed the above-named research project. The proposal was found to be acceptable on ethical grounds. The principal investigator has the responsibility for any other administrative or regulatory approvals that may pertain to this research project, and for ensuring that the authorized research is carried out according to the conditions outlined in the original protocol submitted for ethics review. This Certificate of Approval is valid for the above time period provided there is no change in experimental protocol, or related documents.

Any significant changes to your proposed method, procedures or related documents should be reported to the Chair for Research Ethics Board consideration in advance of its implementation.

ONGOING REVIEW REQUIREMENTS
In order to receive annual renewal, a status report must be submitted to the REB Chair for Board consideration within one month of the current expiry date each year the study remains open, and upon study completion. Please refer to the following website for the renewal and closure forms:
https://www.uregina.ca/research/for-faculty-staff/ethics-compliance/human/ethicsforms.html

Please send all correspondence to:
Research Office
University of Regina
Research and Innovation Centre 109
Regina, SK S4S 0A2
Telephone: (306) 585-4775  Fax: (306) 585-4953
research.ethics@uregina.ca
Appendix B: Research Ethics Board Certificate of Amendment and Renewal Approval

University of Regina

PRINCIPAL INVESTIGATOR: Dr. Heather Hadjistavropoulos
DEPARTMENT: Department of Psychology
REB#: 2019-197

TITLE: Optimizing Duration of Therapist-guided Internet-delivered Cognitive Behaviour Therapy for Depression and Anxiety

AMENDMENT APPROVAL OF

- Revisions as outlined in memo dated November 26, 2020, moving the study to phase two and studying the impact of changes to the operation of the Online Therapy Unit
- Addition of Resources (Building Motivation, Good Sleep Guide, Alcohol and Workplace Mental Health)
- Revised Consent Forms (Treatment-Optional & Standard & Screening)
- New Questionnaires: Things You Do Questionnaire (TYDQ), Resource Evaluation
- Revised Homework Reflection Questionnaire

NEXT RENEWAL DATE: December 9, 2020
APPROVAL DATE: December 16, 2020

Full Board Meeting ☐ Delegated Review ☒

RENEWAL CERTIFICATION
The University of Regina Research Ethics Board has renewed the above-named research project for an additional 12 months beginning December 9, 2020.

Any significant changes to your proposed method, or your consent and recruitment procedures should be reported to the Chair of the Research Ethics Board for consideration in advance of implementation.

AMENDMENT CERTIFICATION
The University of Regina Research Ethics Board has reviewed the changes to the above-named research project as outlined in your memo dated December 2, 2020, and they are approved.

ONGOING REVIEW REQUIREMENTS
In order to receive annual renewal, a status report must be submitted to the REB Chair for Board consideration within one month of the current expiry date each year the study remains open, and upon study completion. Please refer to the following website for further instructions:
http://www.uregina.ca/research/for-faculty-staff/ethics-compliance/human/forms1/ethics-forms.html

Ara Steininger
Research Ethics Board
Appendix C: Online Screening Questions Used in this Pilot

**Full Screen Questionnaire – 2019**

How would you describe the location that you live?

- 1. Farm or Acreage
- 2. Village or Hamlet (1-200 citizens)
- 3. Small Town (200-800 citizens)
- 4. Town (800 - 7,000 citizens)
- 5. Big Town (7,000 - 20,000 citizens)
- 6. Small City (20,000 - 100,000 citizens)
- 7. City (100,000 - 300,000 citizens)
- 8. Large City (300,000+ citizens)
- 9. First Nations community
- 10. Other (Please specify)

____________________________________________________

**Personal Background**

Age______________

Which gender do you identify with?

- Woman
- Man
- Non-Binary
- Two-Spirit
- Transgender
- Prefer not to disclose
- Not listed (please specify)

________________________________

Would you like to expand?

________________________________

What is your date of birth? (yyyy/mm/dd)

________________________________

What is your highest level of education?

- Less than high school
- High school diploma
Some college or university
College diploma – 2 to 3 year
University undergraduate degree
University professional degree (e.g. MD)
University graduate degree (e.g. MA, PhD)

How would you describe your ethnicity?

- White/Caucasian
- Spanish/Hispanic/Latino
- Black/African American
- Asian
- Southeast Asian
- Pacific Islander
- First Nations, Metis, Inuit
- Middle Eastern
- Prefer not to answer
- Other

Social Relationships

What is your relationship status?

- Single never married
- Dating
- Married or common law
- Living with partner
- Separated
- Divorced
- Widowed

The following section is related to paid and unpaid work

This part of this questionnaire concerns the consequences of health problems for paid and unpaid work (e.g. household chores). These questions relate to the period covering one month. Health problems refer to both physical and emotional problems. Your answers to the questions in this questionnaire are very important for the study into the influence of health status on healthcare consumption and the quality of work.

Are you a student?

- Yes
- No

Do you have paid work?

- Yes
- No
What fields are you employed in?
- Service/Retail
- Trades/Labour
- Health/Medical
- Education/Research
- Business/Finance/Administration
- Farming/Mining/Oil
- Entertainment/Arts
- Science/Technology
- Law Enforcement/Security/Military
- Other

What is your occupation?

________________________

How long have you been in your current position with your employer?
- Less than 6 months
- 6 months to 1 year
- 1 to 2 years
- 2 to 5 years
- 5 to 10 years
- 10 or more years

Did health problems oblige you to be off work at any time in the past month?
- Yes
- No

*If participant enters yes,*

I missed……days of work ______________

Were you off work completely for a period longer than the past month because of health problems?
- Yes
- No

*If participant enters yes,*

I reported ill on….. __________

Reason for disability leave? Please select the best answer
- Primarily due to a mental health concern
- Primarily due to a physical health concern
- Primarily due to an injury

Please briefly describe:

__________________________________________
If applicable, expected return to work date

___________________________________________

Which of the following situations applies to you? If more than one applies, indicate the situation that applies most to your case

- I have paid work
- I run the household (and, if applicable, care for the children)
- I am retired or have taken early retirement
- I am still in school
- I am (partially) unfit for paid work because of health problems
- I do not have paid work for other reasons (E.g. involuntary unemployment or volunteer work.)

Are you currently receiving treatment for mental health concerns?

- Yes
- No

*If participant answers yes*

How often do you receive services for your mental health concerns?

- Less than once a month
- Once a month
- Twice a month
- Three times a month
- Weekly
- More than once a week
Appendix D: Building Motivation Resource Evaluation

Building Motivation Resource Evaluation

1. Did you review the Building Motivation Resource during the Wellbeing Course?
   - Yes
   - No

2. How much effort did you put into working on this resource?
   None- 1  2  3  4  5  6  7 – A great deal

3. How understandable was the resource?
   Not at all – 1  2  3  4  5  6  7 – Very

4. Did you learn something new by reviewing this resource?
   Not at all – 1  2  3  4  5  6  7 - Very

5. How helpful did you find the resource?
   Not at all – 1  2  3  4  5  6  7 – Very

6. Was it worth your time?
   - Yes
   - No

7. What did you like about the resource?

8. What did you not like about the resource?

9. Did you make any changes as a result of reviewing the Building Motivation Resource?
   Please describe.
Appendix E: Treatment Satisfaction Questionnaire

1. Overall, how satisfied were you with treatment?
   • Very dissatisfied
   • Dissatisfied
   • Neutral
   • Satisfied
   • Very satisfied

2. Overall, how satisfied were you with using the Online Therapy Unit website?
   • Very dissatisfied
   • Dissatisfied
   • Neutral
   • Satisfied
   • Very satisfied

3. How satisfied were you with the quality of the Lessons and Do It Yourself guides?
   • Very dissatisfied
   • Dissatisfied
   • Neutral
   • Satisfied
   • Very satisfied

4. Would you feel confident recommending this treatment to a friend?
   • No
   • Yes

5. Was it worth your time doing this course?
   • No
   • Yes

6. How has participating in this course affected your confidence that you can learn to manage your symptoms?
   • Greatly reduced
   • Reduced
   • No change
   • Increased
   • Greatly increased

7. How has participating in this course affected your motivation to seek more treatment if you needed it in the future?
   • Greatly reduced
   • Reduced
   • No change
   • Increased
   • Greatly increased

Appendix F: The Building Motivation Resource
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About Motivation

What is motivation exactly? It is a concept that we often use but it is difficult to define.

Motivation:
- Drives us towards accomplishing tasks, such as working on our emotional wellbeing.
- Does not continue in a straight line. Sometimes motivation is high, sometimes it is moderate and sometimes it is low.
- Can vary in a single day (e.g., be high in the morning and low in the evening).

Let’s Begin

The materials in this resource were developed to help you build your motivation. Every good plan begins with a destination. Take a minute to think about what you are trying to build motivation to do and answer the questions below.

What is it that you are hoping to change or work on? What is your specific goal?

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

Why is this change/goal important to you?

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

How motivated do you feel to make this change or work on this goal on a scale of 1 to 100, with 100 being the most motivated possible?

__________________________________________________________________________

If your motivation is lower than you would like, try the exercises in this handout. Let’s see if you can increase your motivation to achieve your goal.
Maintaining Motivation – What Matters Most?

Clarifying values

Knowing your values can help you build motivation to take action. When you lack motivation, clarifying your values can help remind you of the reasons for tackling difficult tasks.

Sometimes, values can be outside of your awareness. Making decisions can be difficult when your values are unclear. For example, if you have trouble deciding whether to watch TV, or spend time with friends or family, this reflects a conflict in values between the importance of “personal time” and the importance of “community.”

Values can fall under a number of different domains. Out of the examples listed below, what domains of values are most important to you? Please find a list of questions you can use to generate ideas about what is most important to you in each domain.

<table>
<thead>
<tr>
<th>Values domain</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family/Parenting</td>
<td>What would you like your relationships to look like?</td>
</tr>
<tr>
<td>Intimacy</td>
<td>What kind of partner do you want to be?</td>
</tr>
<tr>
<td>Friendships</td>
<td>What is most important to you in a friendship?</td>
</tr>
<tr>
<td>Career/Education</td>
<td>What are you hoping to get out of your career or education?</td>
</tr>
<tr>
<td>Health/physical wellbeing</td>
<td>What does a healthy life look like for you?</td>
</tr>
<tr>
<td>Spirituality</td>
<td>If spirituality is important to you, what does that mean in terms of how you spend your time?</td>
</tr>
<tr>
<td>Other</td>
<td>What other things do you value? Feel free to list a few here:</td>
</tr>
<tr>
<td></td>
<td>1.</td>
</tr>
<tr>
<td></td>
<td>2.</td>
</tr>
<tr>
<td></td>
<td>3.</td>
</tr>
</tbody>
</table>

Remember that there are no right, or wrong, answers when it comes to values!
Exercise: Write Down Your Values

The goal of this exercise is to clarify what your values are. This exercise has been modified from Russ Harris’ book, ACT Made Simple.

Imagine that it is your 85th birthday party. You are being honoured by three people who know you from different areas in your life. For example, perhaps one of these people is a previous co-worker, one is a family member and one is a friend. They each give a speech about you. Think about what you would hope they would say about: 1) why you are important to them, 2) what matters most to you and 3) how you have spent your time.

Why am I important to these people?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

What matters most to me?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

How have I spent my time?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Clients often say that completing a task like this is helpful for highlighting characteristics they value (e.g., kindness, open-mindedness, dependability, creativity, humour and adventure). It helps them decide what they want to spend time on.

With your declared values in mind, does this values-based exercise motivate you to work on your goal? Would working on your goal be consistent with your values?
Examine your Behaviours

Some behaviour that we engage in — when anxiety and depression symptoms are at their worst — may conflict with our values.

<table>
<thead>
<tr>
<th>Behaviour</th>
<th>Instead of...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Playing online computer games</td>
<td>Quality time with family</td>
</tr>
<tr>
<td>Watching television</td>
<td>Going for a walk</td>
</tr>
<tr>
<td>Taking a nap</td>
<td>Meeting with a friend</td>
</tr>
</tbody>
</table>

Consider how your anxiety and/or depression symptoms have affected your involvement in meaningful activities that are consistent with your values. Take a moment to reflect how your life may look different when you are able to manage your symptoms and engage in meaningful activities.

As an online therapy participant, you have already taken positive steps to improve your mental wellbeing. What other steps, if any, are part of working on your goal?
Negative Self-Talk

It's important to note that motivation can be influenced by your thoughts. Lesson 2 provides information about how unhelpful thoughts — including negative self-talk — can contribute to symptoms of anxiety and depression.

Examples of Negative Self-Talk

- “I’m worthless.”
- “No one ever wants to go out with me.”
- “I’m stupid.”
- “I can’t do this.”
- “I am an embarrassment.”

At times, the negative self-talk may even snowball to where one thought leads to another and cycles on. It’s important to recognise how negative self-talk can adversely influence your motivation to work on your goal.

What negative self-talk do you need to address in order to increase your motivation and achieve your goal?

Looking Back

For many people who experience anxiety and/or depression, it can be difficult to think about themselves in a positive light. This is because positive self-talk may not be a common practice.

You can build your self-confidence and motivation if you make time to reflect on past accomplishments. It may also be helpful to identify your strengths. An example of a past accomplishment could be working through this Course. It’s proof that you have the strength to persevere.

The use of thought-challenging techniques can challenge some of the negative opinions you may have about yourself. If you focus on your strengths and accomplishments you can shift to a more constructive perspective. You may choose to focus on:
Positive ways that you have handled challenging situations, or problems, in the past concerning your wellbeing.
Positive ways you have handled other difficult challenges that have come up in your life.
Moments that you were happy. These memories can serve as an anchor in difficult times.
Focus on your personal strengths.

1. Think back to an experience where you felt good about how you handled a situation or problem. How did you overcome it? Did you seek professional help, talk to a friend, journal, avoid the situation, problem-solve or tackle the problem?

2. Think back to a time in your life when things were going well and/or you had joy. If you cannot think of anything, was there a moment when you felt content or comfortable? What was working well for you during this time in your life?

3. If you can think about your personal strengths, what comes to mind? Every strength counts for something – big or small! Strengths can include perseverance, computer skills, honesty, listening, sports, patience, creativity, compassion and passion.

4. If you have difficulty coming up with personal strengths, what do you think individuals close to you — a friend, family member, partner, co-worker — believe are your strengths?

Sometimes people lack confidence in their ability to improve their motivation and achieve their goals. What we have learned from past clients is that confidence tends to improve through remembering your strengths and taking small steps forward. You aren’t expected to be an expert yet!
Looking Forward

Motivation can also be enhanced by taking time to look forward. It can be helpful to imagine yourself working towards your goals — which are in support of your values. Although it may feel like there is not much within your control, you can control how you talk to yourself, which behaviours you engage in, and how you perceive difficult situations. Problems provide an opportunity to practice skills and increase your confidence about how to handle future challenges.

If you want to build positivity into your perspective of the future, it’s helpful to focus on areas such as:

✓ The kind of life you want to live.
✓ How you can work on goals that align with your values.

Looking forward positively to the type of life that you want to live will help motivate you to take action.
Summary

We hope this motivational resource has helped you identify what inspires you to work on your wellbeing.

1. It’s normal for your confidence in your ability to use the skills to fluctuate. When this happens, be sure to take the time to review and work on the skills where you feel less confident.

2. It’s normal for motivation to fluctuate. Understanding when your motivation may be lacking — and using the Course’s tools to improve your motivation — can prove helpful.

3. The key to staying motivated is to understand what you value and know when your values conflict with your goals. You can use values to guide your goals in the following ways:

   - Clarifying values: What’s important to you?
   - Looking back: What do your previous accomplishments tell you about your strengths and values?
   - Looking forward: What kind of life do you want to live?