

The effects of gender, personality type, number of sessions and online modality on the therapeutic alliance and session evaluation in online counselling.

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March 16th, 2021

Submission of Thesis and Dissertation

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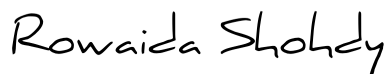
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Acknowledgements

In loving memory of my father whose passion for education has guided me in his life and still does years after his death, Dad I hope this makes you proud...

To my mother whose intelligence and resilience have been my compass and safe place whenever things got tough... Mom I wouldn't have been able to do any of this without you...

To my supervisor Dr. Fearghal O'Brien who has unknowingly motivated me throughout my whole time at NCI, his support has been instrumental for the completion of this project and for the degree in general... To Dr. Caoimhe Hannigan and Dr. Michael Cleary-Gaffney whose statistical lectures and detailed notes have been of massive help for this project.

Finally, a big thank you to Dr. April Hargreaves whose incredible teaching style made me want to go further in the field... you are definitely my role model.

Abstract

Background: Online counselling has always been surrounded with scepticism about its ability to foster a strong therapeutic alliance with limited nonverbal cues.

Aims: The current study aimed to explore clients' evaluation of online counselling in two main areas: quality of the therapeutic alliance (WAI) and the session impact (SEQ). It also aimed to identify the factors that influence that evaluation (age, gender, personality characteristics, session count and online modality).

Hypotheses: H1) participants evaluate their overall online counselling experience positively in terms of WAI and SEQ. H2) The therapeutic alliance requires more time to develop in the online medium and so session count should be significantly correlated with WAI. H3) Videoconferencing differs from the rest of the online modalities in the WAI and SEQ scores. H4) Gender and introversion will be significant predictors for both the therapeutic alliance and session impact in online counselling.

Methods: Participants were recruited through social media using a non-probability convenience sampling ($n = 102$). Participants completed an online survey that included all relevant questionnaires.

Results: The overall rating of SEQ and WAI was high. Session count was significantly correlated with WAI. No significant difference was found between the online modalities in WAI (except for the Goals subscale) or SEQ. Open-mindedness was the only significant predictor for WAI, whereas Agreeableness and Session count were significant predictors for the SEQ Depth subscale. **Implications:** The success of online counselling during the pandemic should encourage Mental health providers to consider extending their services across the globe and provide support to a wider range of people.

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Introduction

The increasing availability of internet access in homes, workplaces and schools since the mid 1990s has offered great opportunities for the helping professions (Barak & Proudfoot, 2009). One of the up and running internet services is online counselling, which refers to any psychological intervention delivered over the internet, for example, synchronous (e.g., texting, video-chat) or asynchronous (e.g., emails, forums) (Amos et al., 2020). As society continued to rely on the internet for day-to-day activities, online counselling has rapidly become an important way of delivering mental health services (Dowling & Rickwood, 2014). However, since early days, online counselling has been surrounded with concerns about its ability to foster an effective therapeutic alliance that is capable of producing therapeutic outcomes that are comparable to the face-to-face modality (Lewis et al., 2003). Throughout the years many researchers have attempted to address those concerns with varying results (Zainudin & Yusop, 2018), and so more research is still needed to address those issues (Inglis & Cathcart, 2018).

The outbreak of COVID-19 brought the need for more research to the forefront, since the majority of psychotherapists switched their practices from face-to-face to online in an effort to slow down the spread of the virus (Békés et al., 2020). This upsurge of online counselling usage necessitates more than ever that counsellors understand what is involved in this method of delivery, what unique factors contribute to its effectiveness and the type of clients that can benefit the most from it. This study therefore will attempt to address some of these concerns and to understand the overall effectiveness of online counselling during the pandemic. We start with a brief review of the advantages and disadvantages of online counselling followed by a review of the literature and then proceed to the current study.

Benefits of online counselling

There are so many unique benefits for internet-based interventions, the most obvious one is that it made mental health services more accessible for people who wouldn't or couldn't otherwise seek help due to lack of time, geographic distance or physical limitations (Rochlen, & Speyer, 2004). This is evident in the recent rapid transition of counselling services from face-to-face to the online medium due to the lockdown restrictions which highlighted the utility of online counselling and the online medium in general (Feijt et al., 2020). Furthermore, online counselling encourages those with a fear of the public stigma surrounding counselling to come forward thanks to the high levels of perceived anonymity of the internet (Vogel et al., 2007). A phenomenon that is referred to as the online disinhibition effect, which argues that people tend to be more relaxed and express themselves more openly while being online (Suler, 2004). This effect is accentuated in online counselling where a lot of people find it easier to self-reflect and to self-disclose (Leibert & Archer, 2006), especially when dealing with sensitive issues (Connolly et al., 2020).

Moreover, online counselling has shown some promising results in treating several issues, for example, Depression (Kessler et al., 2009; Spek et al., 2007; Wagner et al., 2014); Anxiety (Andersson et al., 2005); Panic disorders (Carlbring & Andersson, 2006); Loneliness (Hopps et al., 2003); Problem drinking (Blankers et al., 2011); Smoking cessation (Etter, 2005; Woodruff et al., 2007); Eating disorders (Robinson & Serfaty, 2001) and Weight Loss (Weinstein, 2006). And there is a growing body of research that shows that the therapy outcomes of online counselling are comparable to those of face-to-face therapy (Carlbring et al., 2018; Ertelt et al., 2011; Kiropoulos et al., 2008).

Criticism of online counselling

Despite all these benefits, there are still some concerns about the effectiveness of online counselling (Barak et al., 2008). One of the most documented points of contention around online counselling is the impersonal nature of online communication, where personal elements such as voice, touch and vision are missing in a way that makes the depth of online relationships questionable (Hanley & Reynolds, 2009). It's therefore not clear how the therapeutic relationship between the counsellor and the client develops in such an environment where nonverbal cues are reduced (Cipolletta & Mocellin, 2018). Especially, in text-based therapy (e.g., emails, chat, texts) where the nonverbal cues are almost entirely absent (Wright, 2002), and where issues such as tics, tremors, hygiene (e.g., body odors, alcohol use) are missed due to the virtual limitation (Wagnild et al., 2006). In addition to the time-consuming nature of text-based interaction which makes the overall communication process slower and may interrupt the flow of the client-therapist conversation (Bambling et al., 2008). Furthermore, some concerns are raised regarding the therapist's ability to accurately understand and/or interpret what the client is trying to communicate in absence of the nonverbal cues (Rochlen, & Speyer, 2004).

Literature review

The extent to which a therapeutic relationship can develop in such an environment where nonverbal cues are lacking has been a point of major concern for many researchers. The therapeutic relationship (or working alliance) consists of three elements: The bond between the counsellor and the client (e.g., warmth, mutual trust and empathy); shared goals (desired outcome) and tasks that are agreed upon in the session (Horvath & Greenberg, 1989). The quality of the therapeutic relationship is of utmost importance since it's believed to account for much of the variance in the therapeutic outcomes (Martin et al., 2000). Many researchers

attempted to evaluate the therapeutic relationship in online counselling, for example, Cook and Doyle (2002) investigated the quality of the working alliance in a small sample of online clients ($n = 15$) who completed the Working Alliance Inventory (WAI: Horvath et al., 1989) after a minimum of 1 session of online counselling. They then compared the scores to results from a face-to-face counselling previous validation study and found that the online groups scored higher in both the composite scores and the subscales score (Bond, Goals and Tasks) of the WAI. While these results indicate that a strong therapeutic relationship can be developed in the online environment, the very small sample size in this study makes it difficult to generalize the findings to the population.

Those findings were contrasted by another study by Leibert and Archer (2006) that investigated the quality of the working alliance in a relatively larger sample size ($n = 81$) and compared the results to previous face-to-face validation data. Their results showed that although online counselling clients reported high enough scores in the WAI, the traditional face-to-face counselling scores were superior. The inconsistencies in results between the two studies could be due to the comparison method used where they attempted to compare the online group scores to previously reported face-to-face data where fundamental differences may be present between the two groups (e.g., number of sessions provided, type of therapeutic process followed).

King et al. (2006) attempted to solve this issue by comparing WAI scores of young people from an online counselling group ($n = 86$) to a telephone counselling group ($n = 101$) after one therapy session. Both groups received the same therapeutic process (Information gathering and Problem-solving process). Results showed that the telephone group had substantially higher scores for the working alliance than the online counselling group. However, both groups reported considerably lower levels of distress after the session. More notably

participants' evaluation of the therapy session impact was a significant predictor of the counselling outcome (levels of distress) while the working alliance was not. These findings suggest that although the therapeutic relationship was not as strong in online counselling as it is in traditional therapy, it didn't seem to have much of an impact on the therapy outcome as would be expected.

One possible explanation for this may be that the therapeutic relationship in online counselling requires more time to develop, and hence attempting to evaluate its quality in the initial stages of therapy won't yield any meaningful results (Knaevelsrud & Maercker, 2006). Another possible explanation would be that the characteristics of the session (e.g., depth and smoothness) influence the therapeutic outcome through a circular interaction with the therapeutic relationship (Rodda et al., 2017). In other words, the deeper the therapists attempt to delve into the clients' salient issues, the stronger the therapeutic relationship will become and vice versa (Ackerman et al., 2000). Several studies investigated this interaction and found that the sessions rated as "Deep" are those where the dialogue between the therapist and the client go beyond the facts or events and attempt to explore the feelings associated with these events (Lingiardi et al., 2011). A good therapy session can therefore be characterized by a balanced client-therapist interaction, where the client talks more while the therapist provides structure, proper interpretation and encouragement (Friedlander et al., 1985). This is typically a session that is rated high in Depth by the therapist, and high in Smoothness by the client, where scores for both areas are above the max possible median score (e.g., 3.5) in the Session Evaluation Questionnaire (Friedlander et al., 1985)

This means that the success of online counselling (or any counselling in that case) depends for the most part on clients' perception of how powerful, valuable and comfortable the

sessions are (Barak & Bloch, 2006). This perception appears to be highly correlated with the therapeutic relationship, where a secure and strong client-therapist relationship allows for a deeper exploration of the issues (Mallinckrodt et al., 2005). However, given the circularity of the assumption, the direction of this relationship remains unclear. For example, is it a case where the therapeutic relationship needs to develop before a certain level of session depth can be reached? Or is it a case where the counselling sessions need to reach a certain level of depth in order for the therapeutic relationship to strengthen? And either ways, what are the factors that influence both the therapeutic alliance and session depth in the online environment? (Knaevelsrud et al., 2006).

This poses a very important question about what other factors influence clients' perception of the effectiveness of online counselling? For example, the personality type of the client appears to play a role in their preference for online counselling, where individuals who are low in extraversion show more preference towards the online medium (Klein & Cook, 2010; Tsan & Day, 2007). It's been suggested that because individuals who are low in extraversion may struggle with social interaction, they benefit from the disinhibition effect of the internet and that's why they show more preference for the online medium (Amichai-Hamburger et al., 2002). However, a recent study investigated this relationship in a sample of young individuals (13-16) who were receiving online counselling and found no difference between introverts and extroverts in their levels of satisfaction with the online sessions or in their therapy outcome (Zainudin et al., 2019). However, because the sample in that study was young individuals, the findings may not be generalizable to the wider population and need to be replicated with older adults.

Gender also plays a role in the attitudes towards online therapy and its perceived effectiveness, for example females show more favourable attitudes towards online counselling

compared to males (Tsan et al., 2007). While males who struggle with expressing their feelings face-to-face due to strict societal gender roles appear to have more preference towards online counselling (Rochlen, & Wong, 2004). However, it is still not clear how gender differences influence the therapy outcome and the perceived effectiveness of online counselling. There are very few studies that attempted to investigate this relationship and findings are inconsistent. For example, El Alaoui et al. (2015) investigated the individual factors that influence the therapy outcome in a large sample ($n = 764$) of iCBT users and found that being male is associated with low adherence and poorer therapy outcome. While Frings et al. (2020) didn't find any differences between males and females in the use and perceived effectiveness of online counselling that is delivered via videoconferencing.

One potential explanation here could be that online modalities (e.g., chat and videoconferencing) differ among themselves in terms of effectiveness. For example, videoconferencing has been found in a lot of studies to be as effective as face-to-face (Bouchard et al., 2000; Day & Schneider, 2002; Simpson et al., 2005). However, the majority of research has primarily focused on comparing the effectiveness of online counselling to the traditional face-to-face modality (Barak & Grohol, 2011; Zeren et al., 2020). Little is known about how the different online technologies (e.g., chat, email, videoconferencing) differ in their influence on the therapeutic alliance and outcome (DeLucia et al., 2013).

The increased demand on online counselling due to the global pandemic necessitates further understanding of the types of clients that can benefit from it (e.g., personality type and gender). There is also a critical need to understand the factors that influence both the therapeutic relationship and the session impact (e.g., depth and smoothness) in the online environment (e.g., number of sessions). Additionally, with the recent decline of the traditional face-to-face modality

due to the current situation, it's important to understand the effectiveness of the different technologies available online compared to each other (e.g., chat, email, videoconferencing). To our knowledge no study has attempted to examine all these variables at once before and so our aim is to fill this gap with the current study.

The current study

The current study aims to evaluate the process of online counselling from the clients' perspective in two different areas: The quality of the therapeutic alliance (bonds, goals and tasks) using The Working Alliance Inventory- WAI--Client Form (Horvath et al., 1989); and the session impact (depth, smoothness) using The Session evaluation Questionnaire 5 - SEQ (Stiles, 1980). It also aims to investigate the effects of age, gender, personality characteristics, number of sessions and online modality (e.g., email, chat, text, videoconferencing) on clients' evaluation of the therapeutic alliance and the session impact. The study therefore intends to answer the below questions:

- 1- Do clients find online counselling sessions impactful?
- 2- How well do online clients rate their therapeutic relationship with their counsellors?
- 3- Does the number of online sessions delivered impact the therapeutic relationship?
- 4- What type of clients find online counselling effective?
- 5- Do different online modalities (e.g., emails, chat, text, videoconferencing) differ among themselves in the working alliance and the session impact scores?

Based on the literature we predict that (H1) Online clients will report high scores in the SEQ (above the 3.5 median as specified by Friedlander et al. (1985) in their definition of good therapy sessions); (H2) Participants who have received more online counselling sessions will rate

their therapeutic relationship higher than those with fewer sessions; (H3) Type of online modality (video-conferencing) will be correlated with higher WAI and SEQ scores; (H4) Gender (being female) and personality type (introversion) will score higher on the WAI and SEQ.

Methods

Participants

Participants were recruited through a non-probability convenience sampling via a variety of social media networks (e.g., Facebook, Twitter, Instagram) as well as a variety of forums that specialize in participant recruitment (e.g., Survey Circle). Participants had to be over 18 years old to be able to participate, and only participants who had previously received counselling through any type of online modality (e.g., chat, e-mail, text, video conferencing) were eligible to take part in the study.

The sample consisted of 102 participants, 15.7% of which were males ($n = 16$) and 84.3% were females ($n = 86$). Participants' age ranged between 18 and 75 years, with a mean age of 30 years old ($M = 30$, $SD = 9.72$). The majority of the sample (71.6%) were receiving online counselling through the video conferencing modality ($n = 73$) and 9.8% of the sample were receiving their therapy session through a mix of modalities (e.g., video conferencing, email, chat etc) ($n = 10$) (see Table 1 for more details). The sample scored the highest in two personality domains: Agreeableness ($M = 3.66$, $SD = .73$) and Open Mindedness ($M = 3.53$, $SD = .69$) and the lowest in Extraversion ($M = 3.08$, $SD = .71$) (see Table 2 for more details).

Design

The study was cross-sectional in nature, where all participants who met the inclusion criteria were welcome to take part. The researcher adopted a quantitative approach where data was collected through a survey research. Participants were required to fill out an online questionnaire that consisted of 5 parts (Demographics, Online counselling experience, Personality test, Working Alliance Inventory and Session Evaluation Questionnaire). The dependent variables (criterion variables) were the WAI and SEQ while the independent variables

(predictor variables) were demographics (age, gender), session count and personality type (extraversion, agreeableness, conscientiousness, negative emotionality and open-mindedness).

Materials

Demographic questionnaire:

A small section at the beginning of the questionnaire developed by the researcher that aims to gather demographic data. Participants were asked to provide their age and gender in this section.

Online counselling experience:

The second section was developed by the researcher and was dedicated to collect information about the participants' online counselling experience. This section included two questions, the first asked about the estimated number of online counselling sessions that the participants have received. Participants had to choose a number from the drop-down list that ranged from 0 to 10+ where 0 meant no online counselling experience and 10+ meant more than 10 sessions. If participants selected 0, they were redirected to a page notifying participants that they need to have online counselling experience to be able to participate.

The second question in this section asked about the type of online counselling they received. Answers to this question were: Videoconferencing, Chat, Email, Phone and Other. Participants were able to tick all what applied or provide an alternative answer if they chose Other. Questions in this section were made mandatory since both are main predictor variables in the planned statistical analysis.

The Big Five Inventory-2 Short Form (BFI-2-S):

To evaluate the relationship between the personality type and the levels of working alliance and session evaluation, The BFI-2-S (Soto & John., 2017b), was used. The questionnaire

consists of 30 questions on a 5-point Likert scale ranging from 1) Disagree Strongly, 2) Disagree, 3) Neutral, 4) Agree and 5) Agree Strongly. This questionnaire aims to measure the 5 main personality domains with six questions each (Extraversion, Agreeableness, Conscientiousness, Negative Emotionality and Open-Mindedness). Each domain is divided into 3 facets measured with 2 items each, Extraversion: Sociability, Assertiveness and Energy level; Agreeableness: Compassion, Respectfulness and Trust; Conscientiousness: Organization, Productiveness and Responsibility; Negative Emotionality: Anxiety, Depression and Emotional Volatility; Open-Mindedness: Aesthetic Sensitivity, Intellectual Curiosity and Creative Imagination. However, facet scales were not evaluated for this study since it requires at least 400 participants to be sufficiently reliable (Soto & John., 2017b).

Scores were reversed as per instructions, and each personality domain was measured by calculating the mean score of all 6 items that constituted each domain with higher scores indicating higher item loading. According to Soto & John (2017a) the BFI-2-S has good internal consistency ranging from ($\alpha = .73 - \alpha = .83$). In the current study, the Cronbach alpha coefficient for the subscales were overall good: Agreeableness ($\alpha = .75$), Conscientiousness ($\alpha = .72$), Negative Emotionality ($\alpha = .82$), Extraversion ($\alpha = .68$) and Open Mindedness ($\alpha = .67$). The Extraversion and Open-Mindedness scales however, had lower internal consistency than the recommended.

The Working Alliance Inventory- Client Form WAI:

To evaluate the therapeutic alliance between the therapists and the client, the WAI - Client Form (Horvath et al., 1989) was used. The questionnaire aims to measure the overall therapeutic alliance in three areas: Bond, Tasks and Goals. The Bond subscale measures the depth of the human relationship between the therapist and the client where trust, respect and

attachment are formed to facilitate the therapeutic journey. The Goals subscale measures the level of agreement between the therapist and the client on the desired outcome of therapy. Finally, the Tasks subscale measures the level of mutual collaboration between the therapist and client on specific in-session behaviours and therapeutic techniques to facilitate the therapeutic outcomes.

The questionnaire consists of 36 items, divided into 12 items for each therapeutic dimension, each item is measured on a 7-point Likert Scale ranging from 1) Never, 2) Rarely, 3) Occasionally, 4) Sometimes, 5) Often, 6) Very Often and 7) Always. Subscale scores range between 12 to 84 and can be summed to acquire a total score that can range between 36 to 252, with higher scores indicating stronger working alliance (Hanson et al., 2002). The scale has good internal consistency for the subscales measured using Cronbach's alpha coefficient (ranging from $\alpha = 0.85$ to $\alpha = 0.88$) and the overall internal consistency estimate of the total scores were ($\alpha = .93$) (Horvath et al., 1989). In this study the WAI has an excellent internal consistency, with a Cronbach alpha coefficient reported of ($\alpha = .96$) for the overall scale and a Cronbach's alpha coefficient ranging from (Bond: $\alpha = .88$, Tasks: $\alpha = .91$ and Goals $\alpha = .89$) for the subscales.

Session Evaluation Questionnaire-SEQ:

The session process was evaluated using the SEQ (Stiles, 1980), it consists of 11 bipolar adjectives presented in a 7-point semantic differential scale with higher scores indicating a more positive session evaluation. The questionnaire aims to evaluate the counselling session in terms of its depth (perceived helpfulness and value of the session) and smoothness (session's comfort and relaxation). Indexes of Depth consists of 5 items (bad-good, valuable-worthless, shallow-deep, full-empty and special-ordinary) and was calculated using the mean score of all 5 items. The smoothness index consists of 4 items (safe-dangerous, difficult-easy, unpleasant-pleasant

and rough-smooth) and was calculated as the mean score of all 4 items. Stiles (1980) explained in his pilot study that although the remaining two pairs (exciting-calm and slow-fast) loaded into a third factor (activity/excitement) however, the variance explained by this factor wasn't strong enough to be considered separate from the depth index and so will be ignored in this study. According to Stiles (1980) the internal consistency for the SEQ is high across all subscales, ranging from ($\alpha = .87$) to ($\alpha = .93$) as measured by Cronbach alpha coefficient. In this study the Cronbach's alpha coefficient for Depth was ($\alpha = .91$) and for Smoothness ($\alpha = .67$).

Procedure

An advertisement for the study was posted on a variety of social media sites (Facebook, Twitter, Instagram) on the researcher's personal profile as well as on a variety of Facebook groups dedicated to research participant recruitment (e.g. Dissertation survey exchange, Student Survey Exchange, Research Participation etc). Additionally, the post was also shared on two websites dedicated to participant recruitment (Survey Circle and Call for participants) and one psychology forum (Uncommon Knowledge).

The post briefly explained the nature of the study with the title (How Effective is Online Counselling?) and a one-line description (Factors that influence the effectiveness of online counselling) with keywords (online counselling, online therapy, gender, online modality, personality type). The Post also detailed the inclusion criteria for participants (18+ years old who are currently receiving online counselling (e.g., chat, videoconferencing, email).

The questionnaire was created through a Google Form, and the study link was provided in the ad. Upon clicking on the questionnaire link participants were redirected to the Information Sheet. The information sheet provided great detail about the nature and the purpose of the study with a detailed explanation of all the questionnaires used. The information sheet also provided

information about the inclusion criteria and the potential risks of taking part in the study. It also highlighted the voluntary nature of the study and explained how the data collected will be used and provided a few contacts for the participants in case of queries. Participants were instructed to read and confirm their understanding and agreement to take part by ticking on three boxes at the bottom of the page (I am over 18, I have experience receiving online counselling and I have read and agree to the above).

Once that was done, participants were redirected to the next page to fill in their demographic details (Age and Gender) from which only Gender was a mandatory question to answer. The next section collected information about the participants' online counselling experience. The first question was about the approximate number of online counselling sessions that the participant has received so far. Participants responded to that question by choosing a number from a drop-down list that ranged from 0 to 10+, where 0 indicated no Online counselling experience and 10+ indicated more than 10 sessions. The questionnaire was designed in a way that stopped participants from proceeding if they selected 0 counselling sessions online, by redirecting them to a Thank You page informing them that online counselling experience is needed in order to proceed.

The second question asked participants to tick the modality through which they received their online counselling, the options were: Video Conferencing, Chat, Email, Phone and Other. If participants chose Other a blank field opened for them to specify the online modality they were using. Both questions in this section were mandatory.

The following sections were all mandatory and they were as follows (The Big Five Inventory Personality Test, Working Alliance Inventory and Session Evaluation Questionnaire) (See Appendix D, E & F).

Upon completion of all questionnaires, participants were reminded of their right to withdraw before submitting their results. Once participants have submitted their answers, they were redirected to the Debrief sheet where they received more information about the nature of the study in addition to a few contacts of mental health providers in Ireland should they need assistance with anything.

Ethical considerations

The research was approved by the National college of Ireland Ethical Committee after a thorough consideration of all potential risks as follows. Since this research aims to collect information about online clients' evaluation of their online counselling experience (e.g., my therapist does not understand what I am trying to accomplish in therapy). There was a possibility that the survey may highlight an aspect of therapy that is lacking in the participants experience with online counselling. This posed a risk for those who may not be satisfied with the level of service to drop out while they're not ready to. To address this issue, all participants were informed of this potential risk before they began the study in the Information Sheet. Participants were also provided with a debriefing sheet in which they were given alternative options that they can explore if they are not satisfied with their current online counselling experience.

Additionally, since the questionnaire was directly examining private aspects of the participants personality and counselling experience (personality traits, therapeutic alliance and in-session behaviours), the issue of confidentiality came to the forefront. Therefore, no personally identifiable information was collected to protect the anonymity of the participants. Participants were also assured in the initial information sheet that the data collected will be stored anonymously on a password protected sheet that only the researcher has access to.

Results

Descriptive statistics

Preliminary analysis of Descriptive statistics was performed on the categorical (Gender, Online Modality) to report on the frequencies and valid percentages of each group (see Table 1). Descriptive statistics analysis was also performed on all continuous variables (Session Count, Personality: Extraversion, Agreeableness, Negative Emotionality, Conscientiousness, Open Mindedness, Working Alliance Inventory: Bond, Tasks, Goal, Composite score, Session Evaluation Questionnaire: Depth, Smoothness and Positivity) to obtain measures of central tendency: Means (M), Medians (Mdn) and variance: Standard Deviations (SD) and Range as well as confidence intervals (see Table 2).

Additionally, tests of normality were included in the analysis to evaluate the assumption of normality. Within the Personality subscales Extraversion, Negative Emotionality and Open Mindedness were normally distributed as indicated by the non-significant results from the Kolmogorov-Smirnov test of normality. However, the results were statistically significant for Agreeableness and Conscientiousness indicating non-normal distribution. The Working Alliance Inventory scale as a whole was not normally distributed, however the Bond and Tasks subscales were. Finally, The Session Evaluation Questionnaire subscales: Smoothness and Positivity subscales were found to be normally distributed while the Depth subscale was not normally distributed. The histograms were also examined and were in line with the Kolmogorov-Smirnov results (see Appendix G).

As can be seen in Table 1, the majority of the sample were females (84.3%), received online counselling through the video conferencing modality (71.6%) with a mean session count of 5.89 ($M = 5.89, SD = 3.58$). They scored the lowest in extraversion ($M = 3.08, SD = .71$) and

the highest in Agreeableness ($M = 3.66, SD = .73$). They scored above the 3.5 median score in SEQ subscales: Depth ($Mdn = 4.90, SD = 1.42$), Smoothness ($Mdn = 5.00, SD = 1.20$). Their overall rating of their working alliance was high enough with the highest rating reported in the Bond subscale (see Table 2).

Table 1

Descriptive statistics for Gender, Session Count and Online Modality

Variable	Frequency	Valid %
Gender		
Male	16	15.7%
Female	86	84.3%
Session Count		
1	5	4.9%
2	19	18.6%
3	10	9.8%
4	11	10.8%
5	11	10.8%
6	11	10.8%
7	2	2.0%
8	3	2.9%
9	1	1.0%
10	3	2.9%
10+	26	25.5%
Online Modality		
Video Conferencing	73	71.6%

Chat	6	5.9%
Email	9	8.8%
Phone	3	2.9%
Mix	10	9.8%
Other	1	1.0%

Table 2

Descriptive statistics for Personality trait, WAI and SEQ

Variable	<i>M</i> [95% CI]	<i>Median</i>	<i>SD</i>	Range
Personality Domain				
Extraversion	3.08 [2.94, 3.22]	3.00	.71	1-4
Negative Emotionality	3.41 [3.25, 3.58]	3.50	.85	1-5
Conscientiousness	3.46 [3.31, 3.62]	3.60	.77	2-5
Open-Mindedness	3.53 [3.39, 3.66]	3.50	.70	2-5
Agreeableness	3.66 [3.52, 3.81]	3.83	.73	1-5
WAI				
Bond	62.92 [60.54, 65.30]	64.00	12.13	21-84
Tasks	60.93 [58.35, 63.51]	61.50	13.15	30-84
Goals	60.83 [58.31, 63.35]	60.50	12.83	24-84
Composite	184.69 [177.58, 191.80]	186.00	36.19	83 - 251
SEQ				
Depth	4.90 [4.62, 5.18]	4.90	1.42	1 - 7
Smoothness	5.05 [4.82, 5.29]	5.00	1.20	1 - 7

Positivity	4.52 [4.27, 4.77]	4.59	1.27	1 - 7
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Inferential statistics

SEQ scores in the sample

Overall, the scores for the SEQ subscales (Depth, Smoothness) as shown in Table 2 were all above the median score of 3.5 indicating that they can all be classified as good sessions as explained by Friedlander et al. (1985).

Session count and WAI

To evaluate the relationship between session count and the working alliance, a Spearman's Rank Order correlation coefficient was used since the WAI scores didn't meet the normality assumption. Results show that there was a small, positive correlation between session count and WAI scores ($r_s = .27, n = 102, p = .006$). Although the effect size is small, there is still a statistically significant relationship between the number of sessions received and the therapeutic alliance established. Whereby the more sessions the participant receives the more likely they are to rate their working alliance higher.

Online Modality and WAI and SEQ

To explore the difference between the online modalities groups in their levels of therapeutic alliance scores a one-way between groups analysis of variance (ANOVA) was conducted. Participants were divided into six groups according to their online modality use (Video Conferencing; Chat; Email, Phone, Mixed and Other). However, given the very small size of the Chat ($n = 6$), Phone ($n = 3$) and Other ($n = 1$) groups, a new variable was created only for the Videoconferencing, Email and Mixed groups. There was no statistically significant difference in levels of therapeutic alliance scores for all groups, $F(2, 89) = 2.91, p = .06$. However, upon closer examination of the subscales, a statistically significant difference at the p

< .05 level in the Goals subscale scores for the three online modalities: $F(2, 89) = 3.46, p = .036$. The effect size, calculated using eta squared was .07, indicating a medium difference in participants' perception of their therapy goals between the video conferencing, email and mixed groups.

Post-hoc comparisons using the Tukey HSD test indicated that the mean score for the video conferencing group ($M = 62.59, SD = 12.55$) was significantly different ($p = .036$) from the Email group ($M = 51.56, SD = 4.61$). There was no statistically significant difference in mean scores between the Video Conferencing and Mixed groups ($p = .562$) or between the Email and Mixed Groups ($p = .465$).

Another one-way between groups ANOVA was conducted to explore the differences between the three online modalities in their session evaluation (Depth and Smoothness). Using the new variable as above, participants were divided into three groups (Video Conferencing, Email and Mixed Modalities). There was no statistically significant difference in their session evaluation (Depth) scores for all groups, $F(2, 89) = .38, p = .687$. Neither was there a difference in their session evaluation (Smoothness) scores for all groups, $F(2, 89) = 2.09, p = .130$.

Predictors of WAI and SEQ

Multiple regression analysis was performed to determine how well WAI and SEQ levels could be explained by eight variables including Age, Gender (male/female), Session count and Personality (Extraversion, Negative Emotionality, Conscientiousness, Open Mindedness and Agreeableness).

Preliminary analyses were conducted to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. The correlations between the predictor variables and the criterion variable included in the study were examined (see Table 3 for full details). Four of

the eight predictor variables were significantly correlated with the criterion variable (WAI), and these significant effects ranged from $r = .17$ (Conscientiousness) to $r = .31$ (Open Mindedness).

While five of the eight predictor variables were significantly correlated with the criterion variable (Depth), and these significant effects ranged from $r = -.20$ (Negative Emotionality) to $r = .35$ (Agreeableness). The smoothness subscale didn't yield any significant correlations with the predictor variables. The correlations between the predictor variables were also assessed with r values ranging from .002 and -.43. Tests for multicollinearity also indicated that all Tolerance and VIF values were in an acceptable range. These results indicate that there was no violation of the assumption of multicollinearity and that the data was suitable for examination through multiple linear regression analysis.

Table 3

Correlations between variables included in the model

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. WAI	-								
2. Age	.11	-							
3. Gender	.01	-.15	-						
4. Session Count	.23*	.09	.01	-					
5. Extraversion	.11	.01	-.07	-.03	-				
6. Agreeableness	.30**	.23*	-.10	.14	.03	-			
7. Conscientiousness	.17*	.22*	-.08	-.05	.27**	.19*	-		
8. Negative Emotionality	-.09	-.15	.22*	.21*	-.43***	-.06	-.21*	-	

9. Open-Mindedness	.31**	.02	.08	.17*	.13	.30**	-.11	-.06	-
1. Depth	-								
2. Age	.10	-							
3. Gender	-.04	-.15	-						
4. Session Count	.21*	.09	.01	-					
5. Extraversion	.13	.01	-.07	-.03	-				
6. Agreeableness	.35***	.23*	-.10	.14	.03	-			
7. Conscientiousness	.21*	.22*	-.08	-.05	.27**	.19*	-		
8. Negative Emotionality	-.20*	-.15	.22*	.21*	-.43***	-.06	-.21*	-	
9. Open-Mindedness	.22*	.02	.08	.17*	.13	.30**	-.11	-.06	-

Note: * $p > .05$; ** $p > .01$; *** $p > .001$

Since no a priori hypotheses had been made to determine the order of entry of the predictor variables, a direct method was used for the analysis. The eight predictor variables explained 19.8% of variance in WAI Scores ($F(8, 89) = 2.75, p = .009$). One of the eight variables was found to uniquely predict WAI Scores to a statistically significant level: Open Mindedness ($\beta = .23, p = .03$) (see Table 4 for full details).

Table 4

Multiple regression model predicting WAI scores

Variable	R ²	B	SE	β	<i>t</i>	<i>p</i>
Model	.20**					
Age		0.29	.38	.01	.08	.938

Gender	3.86	9.79	.04	.39	.694
Session Count	1.93	1.01	.19	1.90	.060
Extraversion	.43	5.62	.01	.08	.939
Agreeableness	8.30	5.23	.17	1.59	.116
Conscientiousness	7.09	4.97	.15	1.43	.156
Negative Emotionality	-3.43	4.78	-.08	-.72	.475
Open Mindedness	12.17	5.50	.23	2.21	.030

Note: ** $p < .01$

Once again, a direct method was used for the SEQ since no priori hypotheses had been made to determine the order of entry of the predictor variables. The Depth analysis explained 22.2% of variance in the Depth Scores ($F(8, 89) = 3.17, p = .003$) with two predictors that uniquely predicted Depth Scores to a statistically significant level: Session count ($\beta = .21, p = .04$) and Agreeableness ($\beta = .25, p = .02$) (see Table 5 for full details). The Smoothness analysis didn't yield any significant results with only 5% of the variance explained ($F(8, 89) = .60, p = .776$).

Table 5

Multiple regression model predicting SEQ scores

Variable	R ²	B	SE	β	<i>t</i>	<i>p</i>
Model (Depth)	.22**					
Age		-.01	.02	-.04	-.36	.719
Gender		.07	.38	.02	.19	.852

Session Count	.08	.04	.21	2.09	.040
Extraversion	-.04	.22	-.02	-.17	.862
Agreeableness	.48	.20	.25	2.39	.019
Conscientiousness	.29	.19	.16	1.53	.130
Negative Emotionality	-.34	.19	-.20	-1.81	.074
Open Mindedness	.25	.21	.12	1.19	.236

Note: ** $p < .01$; *** $p < .001$

Discussion

This research aimed to explore and evaluate the online counselling experience from the clients' perspective in terms of the quality of their therapeutic alliance and the depth and smoothness of their online counselling sessions. The research also aimed to identify the factors that influence their evaluation in both areas whether that be age, gender, personality type or the type of online modality they are using. Prior findings have shown that the therapeutic alliance and the session evaluation of online counselling is comparable (higher in some instances) to that of face-to-face therapy (Cook et al., 2002; Rodda et al., 2017). Previous research has also pointed to a potential difference in the way the therapeutic alliance develops in the online environment in terms of number of sessions required (Knaevelsrud et al., 2006). Finally, previous findings have also shown that gender (being female) (El Alaoui et al., 2015), and personality type (introversion) (Tsan & Day, 2007) play a role in the clients' preference and perception of the effectiveness of online counselling.

Based on the literature, we predicted that (H1) the participants will rate their online counselling sessions positively, and that the SEQ scores should be all above the maximum possible median score of 3.5 indicating a good session. To investigate that we evaluated the measures of central tendencies (Means and Medians) of the two subscales of the SEQ (Depth and Smoothness). Results confirmed our prediction and showed that participants considered their online sessions to be "Good" as indicated by the median scores (above 3.5) for the subscales. This is consistent with previous research whose SEQ scores in the online sample were all above the 3.5 mid-point (Reynolds et al., 2006; Rodda et al., 2017). The highest rated subscale in the current study was "Smoothness", which is consistent with Friedlander et al. (1985) who proposed that good sessions will be rated higher by the client on the smoothness subscale.

The participants in this study rated their therapeutic alliance high enough in both the overall WAI score and the subsequent subscales. The WAI scores in this study were also higher than previously reported results by Leibert et al. (2006) indicating that participants perceived their therapeutic alliance to be strong.

Our second hypothesis (H2) predicted that the therapeutic alliance in the online environment requires more time to develop. This was confirmed as a significant correlation was found between the WAI scores and the session count which is consistent with previous research (Knaevelsrud et al., 2006). However, the effect size of the correlation was small, which suggests that although a relationship may exist between the therapeutic alliance and the number of counselling sessions received, the effect of this relationship may not bear any real-life significance (Sullivan & Feinn, 2012). This is somewhat in line with King et al. (2006) research that found that the therapeutic outcome (lower levels of distress) was at par between the telephone and online groups despite the lower therapeutic alliance scores in the online sample. They suggested that the elements of the therapeutic relationship that may require more time to develop in the online environment are more related to the therapeutic processes that may be slowed down by the virtual environment but not the relationship itself (e.g., bond). This was further elaborated by Lingardi et al. (2011) who proposed that the therapeutic alliance is significantly correlated with the Depth of the session, whereas specific therapeutic processes (e.g., deeper exploration of issues) are associated with greater depth and in turn a stronger therapeutic alliance. This could potentially mean that while the therapeutic alliance may require more time to develop in an online environment, it is also highly dependent on the therapeutic style that the therapist opts to use regardless of the environment they're in.

For our third hypothesis (H3) we predicted that the videoconferencing modality will yield higher WAI and SEQ scores than the rest of the modalities. Results showed that there was no significant difference among the online modalities in neither the WAI nor the SEQ scores and so the third hypothesis was not supported. It is worth mentioning though that a significant difference was found between the Video conferencing and the Email groups in the “Goals” subscale of the WAI. The videoconferencing group rated their level of agreement with their therapist on the desired outcome of therapy higher than the Email group. These findings are partially consistent with the previously reported results by Leibert et al. (2006) who found a significant difference between the text-based and face-to-face groups in the WAI scores as a whole and in all subscales, with the largest effect size coming from the Goals subscales. These findings are also relevant to the existing criticisms against online counselling, specifically surrounding the text-based therapy where misinterpretation may occur in absence of spontaneous clarification and nonverbal cues (Rochlen, & Speyer, 2004). While these results need to be interpreted with caution due to the very low size of the Email group compared to the videoconferencing group, they still offer support to the idea that a strong therapeutic relationship and a deep and smooth session can be facilitated by the online medium.

Finally, for our last prediction (H4) we aimed to identify the factors that influenced the WAI and SEQ scores. Based on the literature, we hypothesized that gender (being female) and personality domains (Introversion) are strong predictors of both the WAI and SEQ ratings. Our results failed to support this hypothesis since none of these variables were significant predictors for the WAI or the Depth and Smoothness subscales of the SEQ. Surprisingly, the only significant predictor for the WAI was Open-Mindedness, while Agreeableness and Session count

were significant predictors for the Depth subscale, and interestingly the model for the Smoothness subscale didn't yield any significant results.

Although these results didn't support our hypothesis, this is somewhat expected given that previously reported findings were for the most part inconsistent. For example, while some research found that females show more favourable attitudes towards online counselling (Tsan et al., 2007) and that males are less likely to adhere to online counselling compared to females (El Alaoui et al., 2015), other studies found no difference between males and females in their online counselling evaluation (Frings et al., 2020). However, it is difficult to draw a conclusion from our results that no gender difference exists since the number of male participants in our study was very low. The low male participation could be related to the existing discrepancy between males and females in their help seeking behaviours (Rice et al., 2020). Where females are a lot more open to seek help for their mental health issues than males who may be restricted by societal gender expectations (Rochlen, & Wong, 2004). In the context of our study, this could potentially mean that the percentage of males who seek online counselling is significantly lower than females, or that males who are currently receiving online counselling are reluctant to address their experience due to fear of internalized stigma (Rochlen, & Wong, 2004). Although, these assumptions are speculative in nature, it is important that future research explore them further to fill in the existing gap in our understanding of men's perception of online counselling.

Regarding the effects of the personality type on the working alliance and session evaluation, the literature was also inconsistent. For example, while some studies showed that individuals who are low in extraversion are more likely to prefer online counselling (Amichai-Hamburger et al., 2002; Klein et al., 2010), other studies didn't find the same correlation (Zainudin et al., 2019). However, it is important to take the current situation with the pandemic

into consideration when attempting to interpret the results. One obvious implication of the pandemic is the lockdown restriction that forced a lot of people to switch from face-to-face to online counselling. This means that prior to the pandemic it may have been the case that individuals who were low in extraversion were more likely to seek help online than others. However, since now the majority of people have switched from face-to-face to online counselling, this is no longer a significant predictor for neither the preference nor the perceived effectiveness of online counselling.

More specifically, it is important to take into account that the therapeutic alliances for those who have switched from face-to-face to online counselling may have already been established way before the switch took place. This could potentially explain why factors such as the session count or the online modality were not found to be significant predictors for the WAI since the alliance is already established. It is therefore not surprising that being “open-minded” was the only significant predictor for the therapeutic alliance, indicating that the switch from face-to-face to online counselling was mitigated by the clients’ openness towards the new modality.

Interestingly, Agreeableness was the only personality domain that could significantly predict the Depth of the sessions. The agreeableness domain is mainly characterized by compassion towards others, respect and trust (Soto & John, 2017a). It also refers to the individual’s ability to foster strong social relationships that are based on trust, understanding, harmony and cooperation (Murugesan & Jayavelu, 2017). These characteristics may be linked to the idea that greater session depth is associated with exploratory therapeutic styles which naturally requires a certain level of client’s trust and cooperation for it work (Lingiardi et al., 2011). Moreover, the finding that the session count was also a strong predictor for the session

Depth supports the idea that the therapeutic alliance requires a certain level of session depth to strengthen. The depth of the session in this case appears to be the element that requires more time to foster in the online environment rather than the therapeutic alliance itself. However, this assumption requires further investigation to understand if the observed relationship is specific to the online environment and if so, what are the specific online features that delays the development of that level of depth (e.g. physical space, absence of nonverbal cues etc).

Finally, the fact that none of the variables included in the model were able to predict the smoothness of the session may potentially point to the existence of other variables of significance that were not considered in this study. The smoothness aspect of the therapy relies greatly on the level of comfort and relaxation that the client experiences throughout the session (Rodda et al., 2017). Therefore, the factors that may influence that perception could be related to the therapist style or internet specific features (e.g., speed of typing, internet connection interruptions, computer literacy) that were not explored in this study. Future studies will need to explore the factors that influence the smoothness perception.

Limitations and Future direction

The main limitation of the study is the small sample size compared to the number of predictors we were aiming to examine. While the results were able to shed some light on new factors of significance (e.g., open-mindedness, agreeableness), its generalizability is questionable due to the small sample size and therefore requires replication with a larger sample size. Another limitation of the study is the overrepresentation of the videoconferencing modality in the sample, which made it difficult to make any sort of meaningful comparison with other online modalities. Therefore, this remains to be an area that requires further investigation to explore how text-based

therapies compare to videoconferencing in areas such as working alliance and in-session behaviours.

The female group was also overrepresented in our sample making it difficult to draw any solid conclusions as to whether men perceive their online counselling experience any differently than women. Understanding how men use and perceive their online counselling is important since online counselling has the potential of reducing the stigma that surrounds seeking help for men due to its high levels of anonymity. It's therefore important that future research explore the prevalence of online counselling usage among men, as well as how well do men evaluate their online counselling experience.

Additionally, it is possible that the results obtained in this study are confounded with previous face-to-face experiences. This means that for some of the participants the therapeutic alliance was already well developed, and their sessions have already reached a certain level of depth before they switched to the online environment. Therefore, the results of this study may be reflective of a strong existing therapeutic alliance rather than an alliance that was developed solely online. While this in itself is indicative of the online environments' ability to facilitate the switch with little to no disturbance to the quality of the alliance, it is still not clear if such a strong alliance and deep sessions can be developed solely in the online environment. This calls for future studies to investigate the therapeutic alliance and session evaluation for those who have no previous face-to-face experience with their online counsellor.

As mentioned earlier, future research is also needed to explore the factors that may delay the fostering of certain levels of depth in the online counselling sessions and whether those factors are unique to the online environment. Further exploration is also needed to investigate the factors that contribute to the smoothness perception of the online counselling.

Conclusions

Despite the rapid transition of counselling services from face-to-face to online counselling, clients still perceived their online sessions to be impactful, deep and smooth and their therapeutic alliance to be strong. This smooth transition has been found to be related to clients' openness towards the online experience and their trusting and collaborative nature as reflected by their open-minded and agreeable personalities. This finding provides further evidence for the suitability of the online environment as a medium for counselling. It also expands our view of the type of people who can benefit from online counselling that goes beyond their levels of extraversion.

This study also provided an insight into a potential relationship between the therapeutic alliance, session depth and session count in the online environment. The therapeutic alliance requires certain levels of session depth to strengthen, and that level of depth requires more time to establish. This insight is important as it can help inform specific in-session therapeutic processes that are aimed towards deepening the therapeutic sessions in a way that is more suited for the online environment. This may require the mental health providers to review their current therapeutic processes and adapt them to suit the online environment. It also calls for up-to-date training for the counsellors to ensure that they are well equipped with the necessary tools (e.g., technology, therapeutic processes) that help them create that level of depth online.

The biggest implication however is for the future of mental health service in general and the direction it may take after the success of online counselling during the pandemic. Mental health providers should investigate ways to extend their services to a wider range of people across the globe and offer essential services to those who most need it regardless of their physical location.

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Appendices

Appendix A

Participant Information Sheet

You are being invited to take part in a research study. Before deciding whether to participate, please take the time to read this document, which explains why the research is being done and what it will involve for you. If you have any questions about the information provided, please do not hesitate to contact me using the details at the end of this sheet.

What is the purpose of this study?

I am a final year student in the BA in Psychology programme at National College of Ireland. As part of our degree, we must carry out an independent research project. The research project is approved by the National College of Ireland Ethics Committee and is supervised by Dr. Fearghal O'Brien. For my project I aim to evaluate the effectiveness of online counselling from the clients' perspective in two areas: The relationship between the client and the therapist and the perceived therapy session impact. The project also aims to investigate the effects of gender, personality characteristics and online modality on the perceived effectiveness of online counselling.

What is involved in this study?

If you decide to take part in this research, you will be asked to:

- 1- Fill out basic demographic information such as age, gender.
- 2- Indicate how many online counselling sessions have you received so far (approximately).
- 3- Take a personality test (30 questions) with the aim of determining your personality type.
- 4- Take the Working Alliance Questionnaire (36 items) which aims to evaluate the therapeutic relationship with your counsellor.
- 5- Take the Session Evaluation Questionnaire which consists of 22 bipolar objectives from which you will need to pick the one that best describes your mood after the last online counselling session you received.

How long does it take to fill in the questionnaires?

The questionnaires take approximately 15-20 minutes to complete. Before you start filling the questionnaires you will be asked to provide your consent, and before you submit your results you will be provided with a debrief section as the final part of the study.

Who can take part?

To take part in the study you will need to be at least 18 years old and are currently using (recently received) any type of online counselling services.

Voluntary participation

Participation is completely voluntary and there are no obligations to take part in the study if you don't feel comfortable with it. However, if you do decide to participate, your consent will have to be given before you can proceed to the questionnaire. If at any point you decide not to continue, you will be able to withdraw your consent without having to give any reasons by simply exiting the questionnaire. Refusing to participate or withdrawing your consent will not be penalised in any way. Please note that no personally identifiable information will be collected, therefore once you have submitted your results, it will not be possible to remove the data as there will

be no way to identify your submission. You will be reminded of that once again before you submit your results to ensure that you are happy for your data to be shared.

What are the potential risks?

There is a probability that the questionnaires may highlight some aspects that are lacking in your current online counselling experience. This may lead you to question the quality and effectiveness of the sessions that you're receiving, which may interfere with your therapy journey and the progress you have made with your counsellor. So please consider this before you participate. If you wish to get further information about the study prior to participation you can contact me at the contact details at the end of this sheet.

Will taking part be confidential and what will happen to my data?

The questionnaire is anonymous, it is not possible to identify a participant based on their responses to the questionnaire. All data collected for the study will be treated in the strictest confidence. Responses to the questionnaire will be stored securely in a password protected/encrypted file on the researcher's computer. Only the researcher and their supervisor will have access to the data. Data will be retained for 5 years in accordance with the NCI data retention policy.

What will happen to the results of the study?

The results of this study will be presented in my final dissertation, which will be submitted to National College of Ireland.

Who should you contact for further information?

Name of the department: Psychology – National College of Ireland.

Researcher: Rowaida Shohdy (x17105102@student.ncirl.ie).

Programme coordinator: Dr. David Mothersill (david.mothersill@ncirl.ie).

Supervisor: Dr. Fearghal O'Brien (fearghal.obrien@ncirl.ie).

Appendix B**Consent Form**

By ticking the below boxes, you are agreeing that:

- 1) You have read and understood the participants information sheet.
- 2) Questions about your participation in this study have been answered satisfactorily.
- 3) You are aware of the potential risks (if any).
- 4) You are taking part in this research study voluntarily (without coercion)

I am over 18

Yes

I have experience receiving online counselling.

Yes

I have read and agree to the above

Yes

Appendix C

Debrief Form

Online counselling is an up-and-coming field that makes mental health services more accessible and affordable for those who otherwise wouldn't seek help where they need it. The convenience of receiving online counselling wherever you are and whenever you need it, makes it a very powerful service that can help improve the quality of life for many people. However, just like any other new field, continuous improvements will need to be made to ensure that the quality and effectiveness of the service is of a high standard, especially when it involves mental health issues.

If you feel like there is an aspect lacking in your online counselling experience, we recommend that you bring your concerns to your counsellor's attention. In the absence/reduction of non-verbal cues, it is crucial that you maintain open communication with your counsellor and to inform them of any issues that they may not be aware of. If you're still not happy with your experience you can always reach out to the customer support of your service provider (if any) to discuss further options such as changing the therapist or choosing alternative options of communication (e.g., e-mailing, voice calls, video chat etc). If that's not an option for you and you feel like you need to talk to someone, please check out the below support services available in Ireland:

Samaritans: 0800726666

Pieta House: 1800247247

For more wellbeing support services please visit hse.ie.

If you have any queries regarding the study, please do not hesitate to contact us:

Researcher: Rowaida ElAskary (x17105102@student.ncirl.ie).

Research Supervisor: Dr. Fearghal O'Brien (fearghal.obrien@ncirl.ie).

Finally, we would like to thank you for your participation and time commitment, you have been of great help.

Appendix D**Appendix C****The Big Five Inventory–2 Short Form (BFI-2-S)**

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who *likes to spend time with others*? Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement.

1	2	3	4	5
Disagree strongly	Disagree a little	Neutral; no opinion	Agree a little	Agree strongly

I am someone who...

- | | |
|---|---|
| 1. ___ Tends to be quiet.
2. ___ Is compassionate, has a soft heart.
3. ___ Tends to be disorganized.
4. ___ Worries a lot.
5. ___ Is fascinated by art, music, or literature.
6. ___ Is dominant, acts as a leader.
7. ___ Is sometimes rude to others.
8. ___ Has difficulty getting started on tasks.
9. ___ Tends to feel depressed, blue.
10. ___ Has little interest in abstract ideas.
11. ___ Is full of energy.
12. ___ Assumes the best about people.
13. ___ Is reliable, can always be counted on.
14. ___ Is emotionally stable, not easily upset.
15. ___ Is original, comes up with new ideas. | 16. ___ Is outgoing, sociable.
17. ___ Can be cold and uncaring.
18. ___ Keeps things neat and tidy.
19. ___ Is relaxed, handles stress well.
20. ___ Has few artistic interests.
21. ___ Prefers to have others take charge.
22. ___ Is respectful, treats others with respect.
23. ___ Is persistent, works until the task is finished.
24. ___ Feels secure, comfortable with self.
25. ___ Is complex, a deep thinker.
26. ___ Is less active than other people.
27. ___ Tends to find fault with others.
28. ___ Can be somewhat careless.
29. ___ Is temperamental, gets emotional easily.
30. ___ Has little creativity. |
|---|---|

Please check: Did you write a number in front of each statement?
 BFI-2 items copyright 2015 by Oliver P. John and Christopher J. Soto.

Scoring Key

Item numbers for scoring the BFI-2-S domain and facet scales are listed below. Reverse-keyed items are denoted by "R." Due to the limited reliability of the two-item facet scales, we only recommend using them in samples with approximately 400 or more observations. For more information about the BFI-2, visit the Colby Personality Lab website (<http://www.colby.edu/psych/personality-lab/>).

Domain Scales

Extraversion: 1R, 6, 11, 16, 21R, 26R
 Agreeableness: 2, 7R, 12, 17R, 22, 27R
 Conscientiousness: 3R, 8R, 13, 18, 23, 28R
 Negative Emotionality: 4, 9, 14R, 19R, 24R, 29
 Open-Mindedness: 5, 10R, 15, 20R, 25, 30R

Facet Scales

Sociability: 1R, 16
 Assertiveness: 6, 21R
 Energy Level: 11, 26R
 Compassion: 2, 17R
 Respectfulness: 7R, 22
 Trust: 12, 27R
 Organization: 3R, 18
 Productiveness: 8R, 23
 Responsibility: 13, 28R
 Anxiety: 4, 19R
 Depression: 9, 24R
 Emotional Volatility: 14R, 29
 Aesthetic Sensitivity: 5, 20R
 Intellectual Curiosity: 10R, 25
 Creative Imagination: 15, 30R

Citations for the BFI-2 and BFI-2-S

Soto, C. J., & John, O. P. (2017). The next Big Five Inventory (BFI-2): Developing and assessing a hierarchical model with 15 facets to enhance bandwidth, fidelity, and predictive power. *Journal of Personality and Social Psychology, 113*, 117-143.

Soto, C. J., & John, O. P. (2017). Short and extra-short forms of the Big Five Inventory-2: The BFI-2-S and BFI-2-XS. *Journal of Research in Personality, 68*, 69-81.

Appendix E**Working Alliance Inventory--Client Form**

PsycTESTS Citation:

Horvath, A. O., & Greenberg, L. S. (1989). Working Alliance Inventory--Client Form [Database record]. Retrieved from PsycTESTS. doi: <https://dx.doi.org/10.1037/t16585-000>

Instrument Type:

Inventory/Questionnaire

Test Format:

Respondents rate each item on a 7-point descriptively anchored Likert scale.

Source:

Horvath, Adam O., & Greenberg, Leslie S. (1989). Development and validation of the Working Alliance Inventory. *Journal of Counseling Psychology*, Vol 36(2), 223-233. doi: <https://dx.doi.org/10.1037/0022-0167.36.2.223>

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doi: 10.1037/t16585-000

**Working Alliance Inventory--Client Form
WAI**

Items

1. I feel uncomfortable with _____.
2. _____ and I agree about the things I will need to do in therapy to help improve my situation.
3. I am worried about the outcome of these sessions.
4. What I am doing in therapy gives me new ways of looking at my problem.
5. _____ and I understand each other.
6. _____ perceives accurately what my goals are.
7. I find what I am doing in therapy confusing.
8. I believe _____ likes me.
9. I wish _____ and I could clarify the purpose of our sessions.
10. I disagree with _____ about what I ought to get out of therapy.
11. I believe the time _____ and I are spending together is not spent efficiently.
12. _____ does not understand what I am trying to accomplish in therapy.
13. I am clear on what my responsibilities are in therapy.
14. The goals of these sessions are important to me.
15. I find what _____ and I are doing in therapy are unrelated to my concerns.
16. I feel that the things I do in therapy will help me to accomplish the changes that I want.
17. I believe _____ is genuinely concerned for my welfare.
18. I am clear as to what _____ wants me to do in these sessions.
19. _____ and I respect each other.
20. I feel that _____ is not totally honest about his/her feelings toward me.
21. I am confident in _____'s ability to help me.
22. _____ and I are working towards mutually agreed upon goals.
23. I feel that _____ appreciates me.
24. We agree on what is important for me to work on.
25. As a result of these sessions I am clearer as to how I might be able to change.
26. _____ and I trust one another.
27. _____ and I have different ideas on what my problems are.
28. My relationship with _____ is very important to me.
29. I have the feeling that if I say or do the wrong things, _____ will stop working with me.
30. _____ and I collaborate on setting goals for my therapy.
31. I am frustrated by the things I am doing in therapy.
32. We have established a good understanding of the kind of changes that would be good for me.
33. The things that _____ is asking me to do don't make sense.
34. I don't know what to expect as the result of my therapy.
35. I believe the way we are working with my problem is correct.
36. I feel _____ cares about me even when I do things that he/she does not approve of.

PsycTESTS™ is a database of the American Psychological Association

Appendix F**Session Evaluation Questionnaire**

PsycTESTS Citation:

Stiles, W. B. (1980). Session Evaluation Questionnaire [Database record]. Retrieved from PsycTESTS. doi: <https://dx.doi.org/10.1037/t02576-000>

Instrument Type:

Inventory/Questionnaire

Test Format:

The SEQ consists of 22 bipolar adjective scales presented in a 7-point semantic differential format. The SEQ can easily be completed in 2 minutes and scored in less than 1 minute.

Source:

Stiles, William B. (1980). Measurement of the impact of psychotherapy sessions. *Journal of Consulting and Clinical Psychology*, Vol 48(2), 176-185. doi: <https://dx.doi.org/10.1037/0022-006X.48.2.176>

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doi: 10.1037/t02576—000

**Session Evaluation Questionnaire
SEQ**

Items

This session was

Bad—good

Safe—dangerous

Difficult —easy

Valuable—worthless

Shallow—deep

Exciting—calm

Unpleasant—pleasant

Full—empty

Slow—fast

Special—ordinary

Rough—smooth

Right now I feel

Happy—sad

Angry—pleased

Confident—afraid

Uncertain—definite

Involved—detached

Ugly—beautiful

Powerful—powerless

Tense—relaxed

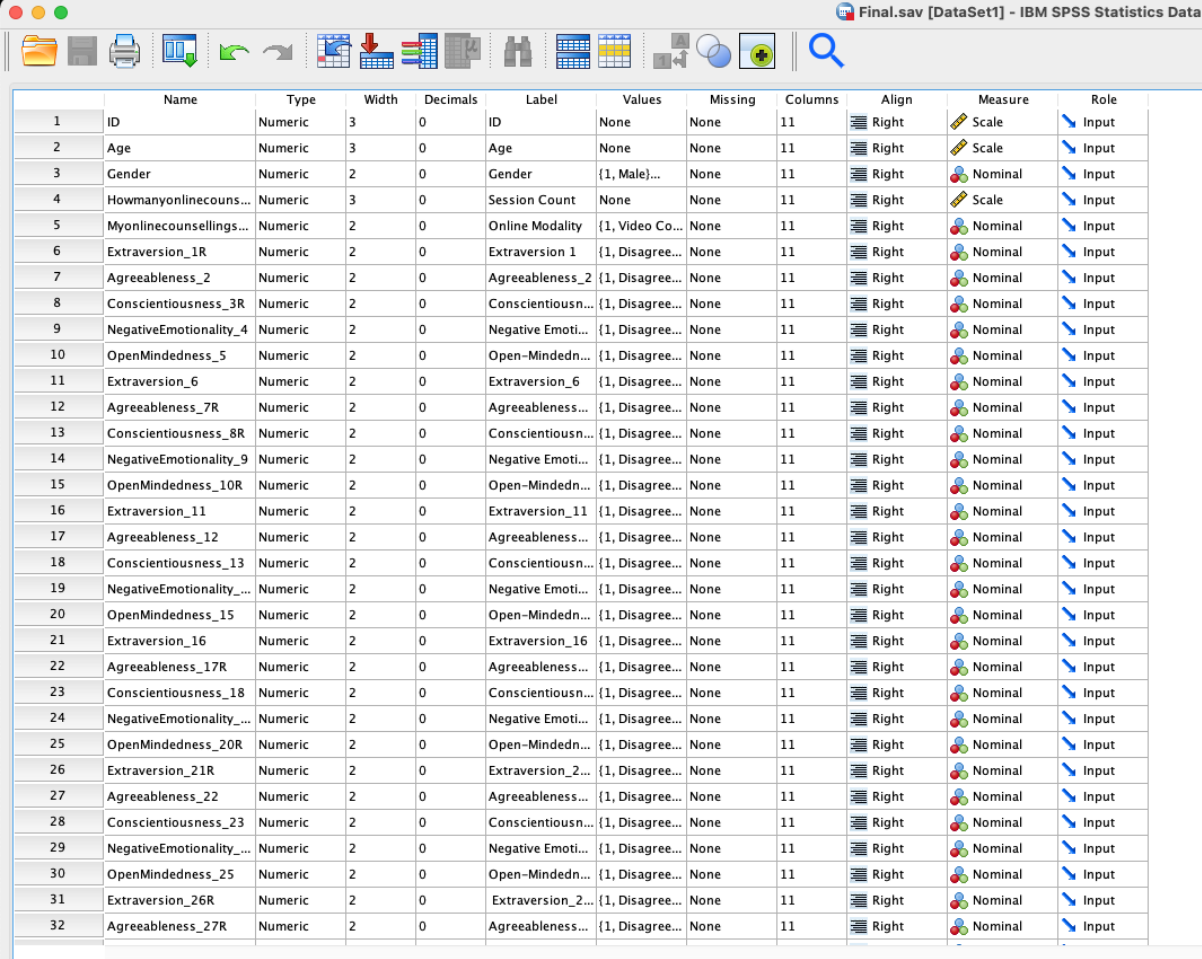
Friendly—unfriendly

Weak—strong

Sharp—dull

Appendix G

- Evidence of data and SPSS output (data file available upon request):



	Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure	Role
1	ID	Numeric	3	0	ID	None	None	11	Right	Scale	Input
2	Age	Numeric	3	0	Age	None	None	11	Right	Scale	Input
3	Gender	Numeric	2	0	Gender	{1, Male}...	None	11	Right	Nominal	Input
4	Howmanyonlinecouns...	Numeric	3	0	Session Count	None	None	11	Right	Scale	Input
5	Myonlinecounselings...	Numeric	2	0	Online Modality	{1, Video Co...	None	11	Right	Nominal	Input
6	Extraversion_1R	Numeric	2	0	Extraversion 1	{1, Disagree...	None	11	Right	Nominal	Input
7	Agreeableness_2	Numeric	2	0	Agreeableness_2	{1, Disagree...	None	11	Right	Nominal	Input
8	Conscientiousness_3R	Numeric	2	0	Conscientious...	{1, Disagree...	None	11	Right	Nominal	Input
9	NegativeEmotionality_4	Numeric	2	0	Negative Emoti...	{1, Disagree...	None	11	Right	Nominal	Input
10	OpenMindedness_5	Numeric	2	0	Open-Mindedn...	{1, Disagree...	None	11	Right	Nominal	Input
11	Extraversion_6	Numeric	2	0	Extraversion_6	{1, Disagree...	None	11	Right	Nominal	Input
12	Agreeableness_7R	Numeric	2	0	Agreeableness...	{1, Disagree...	None	11	Right	Nominal	Input
13	Conscientiousness_8R	Numeric	2	0	Conscientious...	{1, Disagree...	None	11	Right	Nominal	Input
14	NegativeEmotionality_9	Numeric	2	0	Negative Emoti...	{1, Disagree...	None	11	Right	Nominal	Input
15	OpenMindedness_10R	Numeric	2	0	Open-Mindedn...	{1, Disagree...	None	11	Right	Nominal	Input
16	Extraversion_11	Numeric	2	0	Extraversion_11	{1, Disagree...	None	11	Right	Nominal	Input
17	Agreeableness_12	Numeric	2	0	Agreeableness...	{1, Disagree...	None	11	Right	Nominal	Input
18	Conscientiousness_13	Numeric	2	0	Conscientious...	{1, Disagree...	None	11	Right	Nominal	Input
19	NegativeEmotionality_...	Numeric	2	0	Negative Emoti...	{1, Disagree...	None	11	Right	Nominal	Input
20	OpenMindedness_15	Numeric	2	0	Open-Mindedn...	{1, Disagree...	None	11	Right	Nominal	Input
21	Extraversion_16	Numeric	2	0	Extraversion_16	{1, Disagree...	None	11	Right	Nominal	Input
22	Agreeableness_17R	Numeric	2	0	Agreeableness...	{1, Disagree...	None	11	Right	Nominal	Input
23	Conscientiousness_18	Numeric	2	0	Conscientious...	{1, Disagree...	None	11	Right	Nominal	Input
24	NegativeEmotionality_...	Numeric	2	0	Negative Emoti...	{1, Disagree...	None	11	Right	Nominal	Input
25	OpenMindedness_20R	Numeric	2	0	Open-Mindedn...	{1, Disagree...	None	11	Right	Nominal	Input
26	Extraversion_21R	Numeric	2	0	Extraversion_2...	{1, Disagree...	None	11	Right	Nominal	Input
27	Agreeableness_22	Numeric	2	0	Agreeableness...	{1, Disagree...	None	11	Right	Nominal	Input
28	Conscientiousness_23	Numeric	2	0	Conscientious...	{1, Disagree...	None	11	Right	Nominal	Input
29	NegativeEmotionality_...	Numeric	2	0	Negative Emoti...	{1, Disagree...	None	11	Right	Nominal	Input
30	OpenMindedness_25	Numeric	2	0	Open-Mindedn...	{1, Disagree...	None	11	Right	Nominal	Input
31	Extraversion_26R	Numeric	2	0	Extraversion_2...	{1, Disagree...	None	11	Right	Nominal	Input
32	Agreeableness_27R	Numeric	2	0	Agreeableness...	{1, Disagree...	None	11	Right	Nominal	Input

- Output for the WAI and session count correlation

Nonparametric Correlations

Correlations

		Session Count	WAI
Spearman's rho	Session Count	Correlation Coefficient	1.000
		Sig. (2-tailed)	.
		N	102
	WAI	Correlation Coefficient	.272**
		Sig. (2-tailed)	.006
		N	102

** . Correlation is significant at the 0.01 level (2-tailed).

- **ANOVA results for the Goals subscale**

Oneway**Descriptives**

Goals								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1 Video Conferencing	73	62.59	12.545	1.468	59.66	65.52	38	84
3 Email	9	51.56	13.839	4.613	40.92	62.19	24	76
5 Mixed	10	58.30	9.310	2.944	51.64	64.96	44	73
Total	92	61.04	12.711	1.325	58.41	63.68	24	84

Tests of Homogeneity of Variances

Goals		Levene Statistic	df1	df2	Sig.
Goals	Based on Mean	1.205	2	89	.304
	Based on Median	1.177	2	89	.313
	Based on Median and with adjusted df	1.177	2	75.385	.314
	Based on trimmed mean	1.185	2	89	.311

ANOVA

Goals					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1059.833	2	529.916	3.457	.036
Within Groups	13643.993	89	153.303		
Total	14703.826	91			

Robust Tests of Equality of Means

Goals				
	Statistic ^a	df1	df2	Sig.
Welch	2.967	2	14.667	.083
Brown-Forsythe	3.751	2	18.103	.043

a. Asymptotically F distributed.

Post Hoc Tests**Multiple Comparisons**

Dependent Variable: Goals
Tukey HSD

(I) Online_Modality_Reduced	(J) Online_Modality_Reduced	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1 Video Conferencing	3 Email	11.033 [*]	4.374	.036	.61	21.46
	5 Mixed	4.289	4.175	.562	-5.66	14.24
3 Email	1 Video Conferencing	-11.033 [*]	4.374	.036	-21.46	-.61
	5 Mixed	-6.744	5.689	.465	-20.30	6.82
5 Mixed	1 Video Conferencing	-4.289	4.175	.562	-14.24	5.66
	3 Email	6.744	5.689	.465	-6.82	20.30

*. The mean difference is significant at the 0.05 level.

● **Regression for WAI**

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.445 ^a	.198	.126	33.836

a. Predictors: (Constant), Open_Mindedness, Age, Extraversion, Gender, Session Count, Conscientiousness, Agreeableness, Negative_Emotionality

b. Dependent Variable: WAI

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25174.366	8	3146.796	2.749	.009 ^b
	Residual	101895.597	89	1144.894		
	Total	127069.962	97			

a. Dependent Variable: WAI

b. Predictors: (Constant), Open_Mindedness, Age, Extraversion, Gender, Session Count, Conscientiousness, Agreeableness, Negative_Emotionality

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics		
		B	Std. Error				Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF	
1	(Constant)	77.865	41.199		1.890	.062	-3.996	159.726						
	Age	.029	.376	.008	.078	.938	-.718	.777	.105	.008	.007	.883	1.132	
	Gender	3.860	9.794	.039	.394	.694	-15.600	23.320	.010	.042	.037	.921	1.085	
	Session Count	1.927	1.013	.191	1.902	.060	-.086	3.941	.228	.198	.181	.897	1.114	
	Extraversion	.428	5.619	.008	.076	.939	-10.737	11.594	.111	.008	.007	.749	1.336	
	Agreeableness	8.292	5.226	.167	1.587	.116	-2.093	18.676	.295	.166	.151	.810	1.234	
	Conscientiousness	7.093	4.963	.151	1.429	.156	-2.768	16.953	.165	.150	.136	.810	1.235	
	Negative_Emotionality	-3.429	4.777	-.080	-.718	.475	-12.922	6.064	-.092	-.076	-.068	.720	1.389	
	Open_Mindedness	12.166	5.504	.232	2.210	.030	1.229	23.103	.306	.228	.210	.821	1.219	

a. Dependent Variable: WAI

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions									
				(Constant)	Age	Gender	Session Count	Extraversion	Agreeableness	Conscientiousness	Negative Emotionality	Open_Mindedness	
1	1	8.452	1.000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	2	.240	5.929	.00	.00	.00	.88	.00	.00	.00	.01	.00	.00
	3	.100	9.210	.00	.41	.05	.02	.00	.00	.00	.01	.12	.00
	4	.073	10.728	.00	.34	.00	.04	.19	.00	.00	.02	.14	.01
	5	.044	13.870	.00	.00	.00	.02	.01	.08	.00	.34	.04	.29
	6	.037	15.053	.00	.17	.22	.00	.11	.33	.00	.15	.01	.00
	7	.028	17.421	.00	.01	.54	.03	.30	.03	.00	.07	.36	.00
	8	.020	20.750	.00	.00	.06	.00	.15	.50	.00	.32	.00	.61
	9	.006	37.883	1.00	.06	.13	.01	.22	.06	.08	.08	.32	.08

a. Dependent Variable: WAI

● **Regression for Depth**

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.471 ^a	.222	.152	1.312

a. Predictors: (Constant), Open_Mindedness, Age, Extraversion, Gender, Session Count, Conscientiousness, Agreeableness, Negative_Emotionality

b. Dependent Variable: Depth

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	43.693	8	5.462	3.174	.003 ^b
	Residual	153.129	89	1.721		
	Total	196.822	97			

a. Dependent Variable: Depth

b. Predictors: (Constant), Open_Mindedness, Age, Extraversion, Gender, Session Count, Conscientiousness, Agreeableness, Negative_Emotionality

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Zero-order	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound		Partial	Part	Tolerance	VIF	
1	(Constant)	2.017	1.597		1.263	.210	-1.156	5.190						
	Age	-.005	.015	-.036	-.361	.719	-.034	.024	.100	-.038	-.034	.883	1.132	
	Gender	.071	.380	.018	.187	.852	-.683	.826	-.044	.020	.018	.921	1.085	
	Session Count	.082	.039	.206	2.089	.040	.004	.160	.208	.216	.195	.897	1.114	
	Extraversion	-.038	.218	-.019	-.174	.862	-.471	.395	.125	-.018	-.016	.749	1.336	
	Agreeableness	.484	.203	.248	2.391	.019	.082	.887	.346	.246	.224	.810	1.234	
	Conscientiousness	.294	.192	.159	1.529	.130	-.088	.676	.210	.160	.143	.810	1.235	
	Negative_Emotionality	-.335	.185	-.199	-1.808	.074	-.703	.033	-.195	-.188	-.169	.720	1.389	
	Open_Mindedness	.254	.213	.123	1.192	.236	-.170	.678	.224	.125	.111	.821	1.219	

a. Dependent Variable: Depth

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions										
				(Constant)	Age	Gender	Session Count	Extraversion	Agreeableness	Conscientiousness	Negative_Emotionality	Open_Mindedness		
1	1	8.452	1.000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	2	.240	5.929	.00	.00	.00	.88	.00	.00	.00	.01	.00	.00	.00
	3	.100	9.210	.00	.41	.05	.02	.00	.00	.00	.01	.05	.12	.00
	4	.073	10.728	.00	.34	.00	.04	.19	.00	.00	.02	.14	.14	.01
	5	.044	13.870	.00	.00	.00	.02	.01	.08	.00	.34	.04	.29	.00
	6	.037	15.053	.00	.17	.22	.00	.11	.33	.00	.15	.01	.00	.00
	7	.028	17.421	.00	.01	.54	.03	.30	.03	.00	.07	.36	.00	.00
	8	.020	20.750	.00	.00	.06	.00	.15	.50	.00	.32	.00	.61	.00
	9	.006	37.883	1.00	.06	.13	.01	.22	.06	.00	.08	.32	.08	.00

a. Dependent Variable: Depth

● **Histograms**

Histogram

