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# The adaptation to COVID-19 by problem gambling and mental health treatment providers in Canada: a brief report.

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**Abstract:** *Background:* During the Covid-19 pandemic, online gambling venues remained accessible while treatment services were met with constraints. Mental health service providers needed to adapt quickly to continue supporting clients. This exploratory study examined the experiences of problem gambling counsellors and other treatment professionals who worked throughout the Covid-19 pandemic in terms of (1) how they were impacted by the pandemic, (2) about how they adapted to the pandemic, and (3) their training needs in order to be better prepared for future pandemics. *Method:* Counsellors in Canada were surveyed using closed- and open-ended questions. The study was conducted in two waves, one in May to July 2021 in the middle of the pandemic, and the second from April to June 2022 as many public health restrictions were being removed and the casinos were being reopened. *Results:* The results indicated increases in counsellor distress during the pandemic. In addition, the counsellors also reported increased stress in their clients. The participants reported a shift towards phone and online treatment during the pandemic but also expressed a need for additional training on remote counselling methods. The counsellors reported concerns over technological issues, privacy issues and problems with keeping clients engaged. There were also concerns regarding populations who do may not have access to technology such as

homeless people and seniors. *Conclusions:* There is a need for research to define best practices for remote methods of counselling.

**Keywords:** Gambling, Canada, COVID-19, Mental Health.

### Introduction

The COVID-19 pandemic has impacted countries around the world, resulting in an unprecedented disruption to health and social services, and businesses, including the gambling industry (Walker et al., 2020). Well-known features of the pandemic have included lockdowns and operational shutdowns, economic disruptions, a large number of hospitalizations, and many deaths (Walker et al., 2020). As businesses and services scrambled to adapt to lockdown closures, many people were forced to transition to working remotely and online. Hospitals and clinics have also had to adapt to a so-called new normal, especially in care delivery, and may require additional adaptations due to changes in healthcare provision as a result of the pandemic (Mediavilla et al., 2020; Moreno, et al., 2020). While health care has been moving away from traditional in-person consultations and towards greater use of digital health care prior to the pandemic (Torous, Myrick, Rauseo-Ricupero, & Firth, 2020), the switch to digital health care does not always include addiction treatment services (Torous et al., 2020; Scharf & Oinonen, 2020).

The pandemic has also led to an increase in mental distress in the general population (Burke, et al., 2021; Liu, et al., 2021; Soklaridis, Lin, Lalani, Rodak, & Sockalingam, 2020; Turner, 2020), including the potential to increase engagement in addictive behaviours (Boden et al., 2021; Håkansson, et al., 2020). Several studies to date have explored gambling frequency and behaviours during lockdown, and these studies report an overall reduction in gambling as well as shifts toward online gambling (cf. Hodgins & Stevens, 2021; Gainsbury, Swanton, Burgess, Blaszczynski, 2021). During the pandemic, land-based gambling venues were closed in many jurisdictions, and there has been a dramatic increase in the use of online gambling venues (Brown & Hickman, 2020; Håkansson, et al., 2020; ResearchAndMarkets.com, 2020). In-person gambling was observed to be reduced and has been shifted to online platforms. In another study conducted in Sweden, where data collected during initial lockdown days in 2020 were compared to 2018 study data, land-based horse betting decreased from 22% in 2018 to 12% in 2020, live sports betting decreased from 54% to 28% and non-live sports betting fell from 60% to 28% (Håkansson, 2020). Major reasons for the decrease in land-based gambling reported were no live sporting events, less shopping overall, lacking interest and less money, no desire to gamble and gambling occasionally (Hodgins & Stevens, 2021; Turner, Cook & van der Maas, 2022). Turner et al. (2022) also reports an initial drop in gambling problem-related help line calls, followed by a gradual return to pre-pandemic levels of helpline calls. A shift

in age, gender and game type also suggested a move towards more online gambling. A large number of people who gamble in person also shifted to online gambling and, in the Canadian province of Ontario alone, a major increase was noticed with new online accounts created, money spent, participation, time, and games played. For the increases observed in Ontario, two of the significant motives reported were monetary gains in order to earn more and as a coping technique to deal with negative feelings (Responsible Gambling Council, 2022). In addition, some studies also reported links between shifts in online gambling involvement during the pandemic and elevated anxiety and depression, an increase in problem gambling severity and negative effects on domestic finances (Price, Tabri, Stark, Balodis, Wohl, 2022). In addition, the stress of the pandemic has had a negative impact on mental health in general (Boden, et al., 2021; Burke, et al., 2021; Liu, et al., 2021). Evidence has shown a clear need to monitor gambling and other addictive behaviours and trends that may be impacting the health and well-being of people.

As the impacts of the pandemic have included many healthcare services, especially community-based mental health services, having to discontinue or limit their in-person supports, there is a need to facilitate the transitions to more remote yet still effective forms of treatment (for some examples of shifts to remote care, see Boden, et al., 2021, Cerasa et al., 2022; Marionneau & Järvinen-Tassopoulos, 2022; Sammons, 2020). In order to facilitate such transitions, it is valuable to explore and derive lessons from how mental health treatment professionals adapted their services to the COVID-19 pandemic and facilitate a sharing of these experiences across jurisdictions. In relation to gambling services specifically, it should also be noted that these services are, at the best of times, relatively scarce (Guilcher et al., 2016; Matheson, et al., 2021; Woodhall-Melnik et al., 2019). The pandemic has made treatment resources even more difficult to access, necessitating having a healthcare workforce adequately prepared for the use of digital and remote technologies in terms, of access, training, comfort, and support (Boden, et al., 2021; Sanchez et al., 2019; Torous et al., 2020; van der Maas et al., 2019).

While many services have been disrupted by the COVID-19 pandemic, many practitioners and service providers have strived to ensure that they could follow all mandated public health measures while continuing to provide services, especially for their clients with the highest needs. The major goal of this exploratory study was to learn from the experiences of problem gambling counsellors (sample 1) and other treatment professional (sample 2) who worked throughout the pandemic, about (1) how they were impacted by the pandemic, (2) about how they adapted to the pandemic, and (3) their training needs in order to be better prepared for future pandemics. To answer this question, we conducted an online survey of mental health treatment professionals to assess how they have adapted to the pandemic including what technology they have been using to communicate with clients, the limitations of the

technology, and their comfort using the technology. In addition, the survey was designed to identify their training and support needs and ask for a wish list for technological innovations.

For this study we surveyed professionals who work with people experiencing problem gambling (sample 1) and other mental health professional (sample 2) including therapists, psychologists, doctors, and other allied professionals. Questions asked the participants about their experiences during the pandemic, their distress, how they adapted to the pandemic and their training and support needs. Through this survey, they had an opportunity to provide suggestions about improving access to care, while helping us gain a deeper understanding of the challenges they have experienced and their views on how clients are adapting. This study is exploratory, so we did not have any specific hypotheses.

## Methods

### *Participants*

The data were collected in two waves, the first during the middle stages of the pandemic (May to July 2021) and the second in the later stages of the pandemic as restrictions were being eased (April to June 2022). For Sample 1, we only recruited people who worked with people experiencing problem gambling. After the initial study we decided to expand the scope of the study because of the overlapping nature of problem gambling, addictions, and mental health treatment professionals to include a broader collection of treatment professionals. For sample 1, a total of 21 gambling treatment professionals read the consent form and 20 agreed to participate. Of those who began the survey 16 completed the survey for a completion rate of 80%. For sample 2, 18 people read the consent form and 17 agreed to participate. Of the 17 who began the survey, 12 provided sufficient information to be included in the analysis for a completion rate of 70.1%. Note that two participants in sample 2 completed most of the survey but did not complete the last few questions.

The demographics of the two samples are provided in Table 1. Of those who completed survey 1, 15 were from Ontario, and 1 was from Prince Edward Island. For sample 2, 11 were from Ontario, and 1 was from British Columbia. For the second sample, the most common client type was drug-related problems (91.7%), and alcohol problems (83.3%), followed by anxiety (75.0%), depression (75.0%), and other mental health problems (66.7%). In addition, family-related problems (66.7%), eating disorders (50.0%), sexual-related addictions (41.7%), and a quarter reported seeing clients with gambling (25%) or video gaming problems (25%).

Table 1

Demographics of Sample 1 and Sample 2 (**Sample 1, May to July 2021; Sample 2, April to June 2022**).

	<i>Sample 1</i>	<i>Sample 2</i>
<i>Total N</i>	16	12
<i>Sex</i>		
<i>Male</i>	4	3
<i>Female</i>	11	7
<i>Refused/missing</i>	1	2
<i>Age</i>		
<i>19 to 25</i>	1	0
<i>26 to 45</i>	6	7
<i>46 to 55</i>	2	3
<i>56 to 65</i>	5	1
<i>over 65</i>	0	1
<i>Refused/missing</i>	2	0
<i>Marital Status</i>		
<i>Married</i>	13	9
<i>Single</i>	2	1
<i>Divorced</i>	1	0
<i>Refused/missing</i>	0	2
<i>Ethnic Group</i>		
<i>Caucasian</i>	7	9
<i>East Asian</i>	4	0
<i>Refused/missing</i>	5	3

Note: all demographic questions were optional, so some respondents choose not to answer.

### ***Recruitment and Consent***

The study was reviewed and approved by the Research Ethics Board of the Centre for Addiction and Mental Health as protocol # 013/2021.

Participation was anonymous, voluntary and the participant could withdraw by closing the survey at any time.

The study advertisement was posted in several forums that are part of a large online network of people within the mental health and addictions sectors in Ontario, Canada – the Evidence Exchange Network (EENet for information go to <https://kmb.camh.ca/eenet/>). The ad invited subscribers to EENet to participate in the online survey. The survey was designed to take 15 to 30 minutes to complete. If a person clicked on the link in the study ad, they were taken to the survey and a consent form that informed them of the purpose of the study. This online consent form was also available as a PDF that participants could download and were encouraged to download. The survey was designed to be anonymous with no personally identifying information to be collected.

### ***Survey***

The online survey of problem gambling counsellors (sample 1) and other treatment professional (sample 2) asked the participants how they have adapted to the COVID-19 pandemic, in particular, if they are offering services during this pandemic and whether they feel their training and support are sufficient for the challenges the pandemic has raised.

The questionnaire included a number of questions about their experience during, difficulties during the COVID-19 pandemic, their clients' level of distress, and their personal level of distress. The only psychometric scale included in the survey was the Kessler 6-Item Psychological Distress Scale (K6). The K6 consists of 6 questions about the participant's emotional state. Each of the six questions began with "In the past 30 days how often did you..." and then lists the following symptoms: (1) feeling nervous; (2) feeling hopeless; (3) feeling restless or fidgety; (4) feel so depressed nothing could cheer you up; (5) feel that everything was an effort; and (6) feel worthless. Each item is scored from 0 (None of the time) to 4 (All of the time) and a total score is then computed with a range of 0 to 24. According to research by Galea et al. (2007), a score of less than 8 is interpreted as a non-case (low distress), a score of 8 to 12 is scored as mild to moderate mental distress, and a score of 13 or above is classified as probable serious mental distress (Galea et al., 2007). According to Galea et al. (2007), the K6 has very good sensitivity and very good specificity.

The survey was largely the same for sample 1 and 2, except that we added a question about what type of clients they saw (e.g., gambling, alcohol drug, depression etc.), and we added a final question if they felt the pandemic was over. Both surveys also incorporated open-ended questions to augment findings from the close ended questions.

### ***Analysis***

The focus on analysis was to determine the issues the clinician have experienced and their training needs and thus the focus is on frequency of

responses. analyses to determine how treatment professionals have adapted to COVID-19, their level of distress and their training needs. A small number of t-tests were conducted comparing the two samples where continuous variables were used.

In addition, the survey included open-ended questions to give the participants an opportunity to add anything that we had missed in our survey construction, and to tell us about their experiences during the pandemic. The open-ended questions were as follows:

1. In what other ways have you modified the way you deliver your services?
2. In the space below please provide us with additional information about what you what like to see as far as training opportunities.
3. What types of training /support have you received?
4. What difficulties have you experienced with technology?
5. In terms of your treatment practice what other challenges have you faced during this crisis?
6. Are there client populations of particular concern that you believe are not being adequately supported during the pandemic such as racialized groups or those experiencing poverty?
7. What 'other' type of knowledge exchange activities would you be interested in?
8. Your Wish List. Write down anything you would wish was available to help you in your professional role.
9. Briefly describe how the Pandemic affected you personally.
10. Briefly describe what support you would like to have to help you cope with this pandemic or future pandemics.

All responses are provided in the Supplement file. Given the simplicity and short nature of most of the comments, the goal of integrating the open-ended statements was to supplement the statistical analysis and enhance our understanding of their experiences during the pandemic. The results focused on a pragmatic categorization of the difficulties experience, adaptations, and training needs. Therefore, formal qualitative analysis was not used to analyze the results. The information from each open-ended question was sorted into categories of responses by the first and second authors to reflect the questions asked and presented in Tables. In some cases, phrases from a single person were sorted into more than one category (e.g., a person who mentioned both privacy and problems with engagement in the same quote). However, whenever possible, the entire quote was noted under one category in the tables. The answers to questions 4 and 5 were combined to measure work related difficulties experienced during the pandemic. The answers to questions 2, 7, 8 and 10 were combined to provide information on training needs, and support needs. The results for questions 1, 3, 6 and 9 are presented separately. The comments from sample 1 was organized first and the comments from sample 2 were found to be consistent with the first sample, with some differences noted in the tables. All comments were copied into the table directly as typed by the participants with the exception of minor punctuation

corrections. All answers for each question are available in the supplementary text.

## Results

### *Objective 1; Distress Level*

A majority of counsellors reported increased distress since the beginning of the pandemic. As shown in figure 2, 33.3% of counsellors felt “a lot more distress” and 40% felt “somewhat more distress” since the start of Covid-19. A smaller number of the counsellors endorsed they felt “about the same” distress levels during the pandemic, (13.3%) or less distress” (13.3%) (see Figure 1). Sample 2, also found that the majority of the counsellors reported feeling somewhat more stressed (54.5%) or a lot more distressed (18.2%) during the pandemic, than before the pandemic.

In addition, we asked the counsellors how much distress their clients were experiencing during the pandemic. As shown in Figure 2, 43.8% of the counsellors state their clients displayed “a lot more distress” and 50% displayed “somewhat more distress” since the pandemic. Only one counsellor (6.25%), reported that their clients displayed “a lot less distress” since COVID-19 (see Figure 2). The results from the second sample were similar to the first sample where the majority of the respondents reported that their clients felt somewhat more or a lot more distress during the pandemic. Only 8.3% of the counsellors reported that their clients felt less distress.



Figure 1. Counsellor distress level during the Covid-19 pandemic (Sample 1, May to July 2021, N = 16; Sample 2, April to June 2022, N = 11).

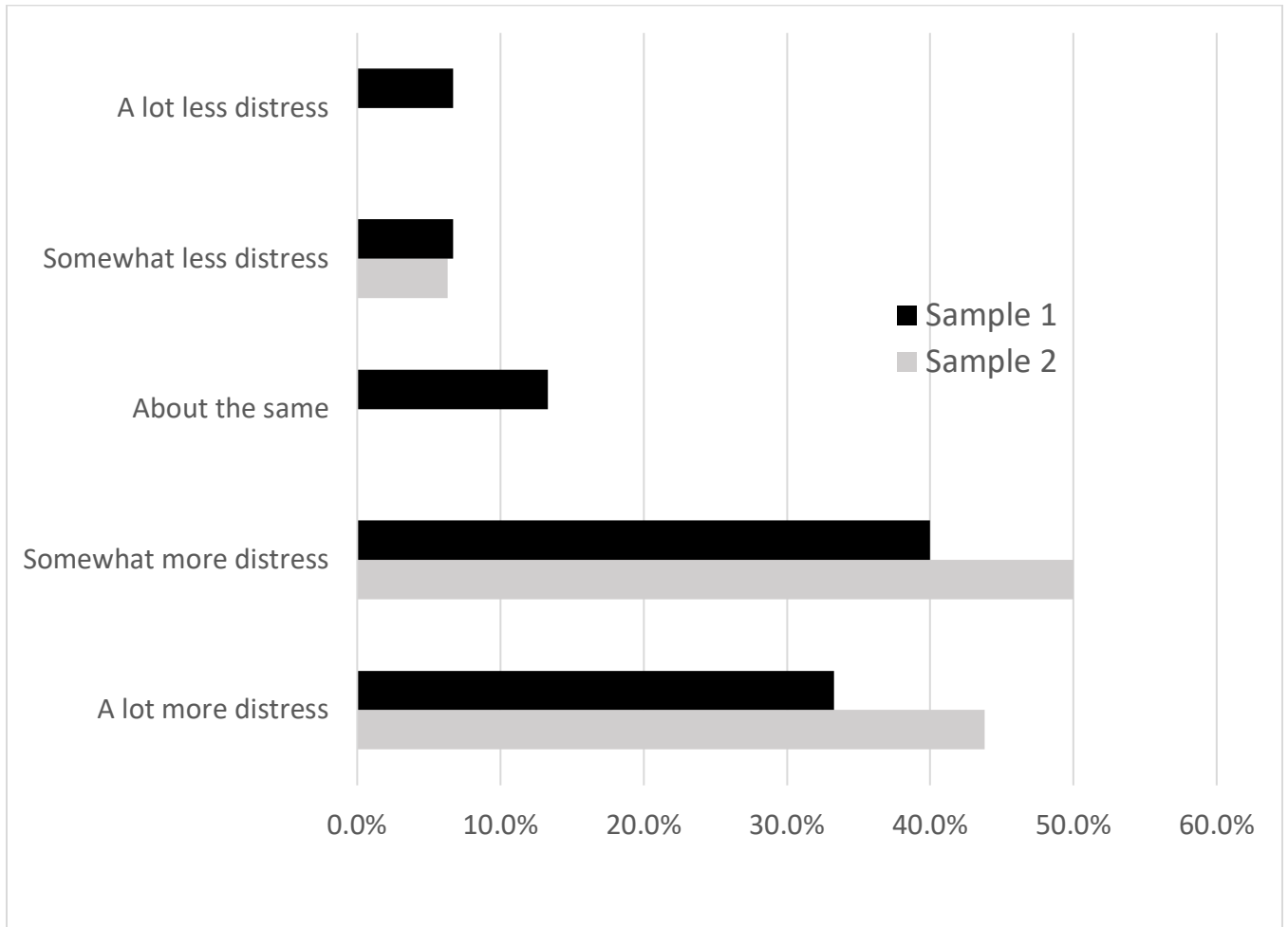
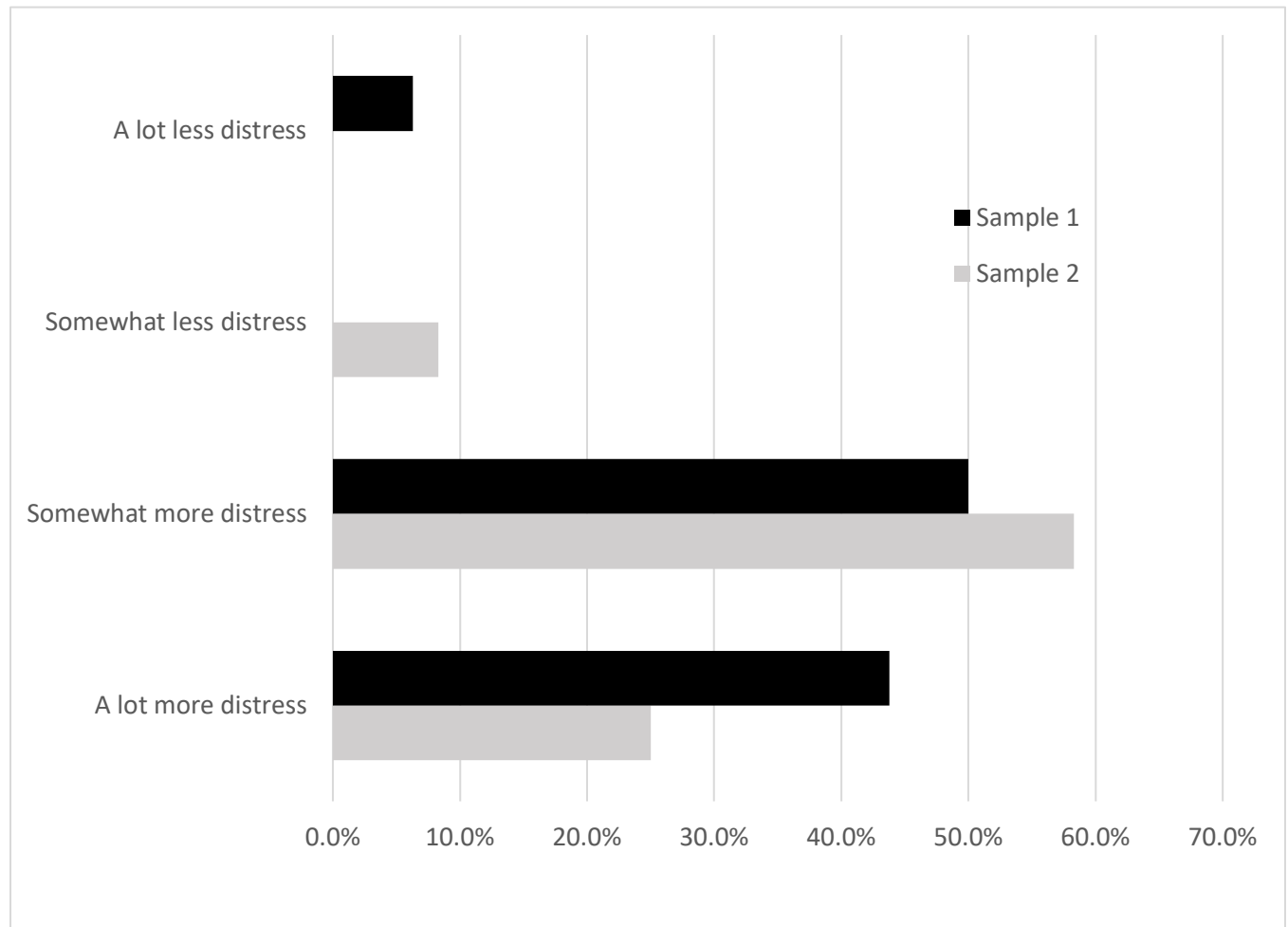


Figure 2. Client distress level during the COVID-19 pandemic (Sample 1, May to July 2021, N = 16; Sample 2, April to June 2022, N = 11).



The distress of the counsellors was also measured using the Kessler-6. Of the counsellors who completed the study, 42.1% responded with a score of less than 8 indicating low levels of distress, however, 26.3% reported a score from 8 to 13 indicating a moderate level of distress, and 15.8% scored above 13 indicating substantial distress. For sample 2, 54.5% of the participants scored in the low-stress group, while 27.3% scored as being moderately distressed, and 18.2% scored in the high distress range. These figures suggest that a substantial number of the counsellors have experienced considerable distress during the pandemic and there is a need for support to help them cope with the pandemic.

In addition, an open-ended question asked the participants how the pandemic affected them personally. The two most common responses were feeling a lot of stress and anxiety and experiencing problems with work-life balance in part from having to work from home. Other respondents noted feeling less engagement with other colleagues and being cut off from the

family. One person noted feeling less distress and less work during the pandemic. As shown in Table 2, these categories are largely the same in samples 1 and 2.

Table 2. How did the pandemic affect you personally (Sample 1, May to July 2021; Sample 2, April to June 2022).

Main Categories	Sample 1 (2020)	Sample 2 (2022)
Stress and anxiety	<ul style="list-style-type: none"> <li>• Loss of family members; loss of family/friend interaction; closure of department; reassigned within the organization in area completely out of comfort zone (P5)</li> <li>• Stressed out (P6)</li> <li>• Increase in anxiety and depression symptoms - catastrophic thinking, feeling overwhelmed, exhausted, unable to function at times, severe sleep issues. (p8)</li> <li>• Easily feel burned out. Feeling alone. (P17)</li> </ul>	<ul style="list-style-type: none"> <li>• Significant stress and anxiety - many vulnerable people in my family. (p3)</li> <li>• Worried about the effects of the vaccine, higher level of exhaustion, stronger focus on nutritional and physical health. (p4)</li> <li>• Some anxiety re: loved ones/self becoming ill, difficult not being able to see family members(P6)</li> <li>• Feeling very isolated, not overly supported at work. Getting directions from people who never set foot in the building (P13)</li> <li>• Worried about vulnerable family acquiring COVID (P4)</li> </ul>
Life work balance	<ul style="list-style-type: none"> <li>• Having to work from home with a 3 year old has been very difficult; constant changes to the way work is done makes it hard to keep up; missing my colleagues; provincial messaging never clear (are we essential workers or not?); never really having downtime (no time between family role and work role - just open the door and you're 'on' for the next role) (P3)</li> <li>• Working from home is too stressful and chaotic with small children at home (P16)</li> <li>• Had to work from home and talk to clients over the phone which is difficult with youth. (P20)</li> </ul>	<ul style="list-style-type: none"> <li>• The agency that I work for full time provided us with a manager that made things more difficult and stressful during the pandemic. After awhile, the agency was not supportive when I needed to stay home to be with my children or when I needed to isolate prior to a surgery that I had (P11)</li> <li>• Increased work loads, increased stress levels of clients and management, being scared of catching it and giving it to my loved ones (P18)</li> <li>• Nervous to get COVID and bring home to kids, took leave from work due to being overwhelmed (P14)</li> </ul>
Less engagement with colleagues	<ul style="list-style-type: none"> <li>• The biggest challenge with virtual service delivery has been less engagement with colleagues. Working virtually has left me feeling very isolated and discouraged at work. It has left me feeling bunt out. I miss feeling connected with other staff.</li> </ul>	<ul style="list-style-type: none"> <li>• Feeling very isolated, not overly supported at work. Getting directions from people who never set foot in the building (P13)</li> </ul>

	(P2)	
Cut off from Family	<ul style="list-style-type: none"> <li>• Not able to visit family. Not able to do things that I used to do. (P10)</li> <li>• Feeling cut off from family/friends, being unable to reach some hard to serve clients has impacted me. (P15)</li> </ul>	<ul style="list-style-type: none"> <li>• Worried about vulnerable family acquiring COVID (P4)</li> <li>• Some anxiety re: loved ones/self becoming ill, difficult not being able to see family members (P6)</li> </ul>
Less stress	<ul style="list-style-type: none"> <li>• Better, less work stress, less patients (P11)</li> </ul>	

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***Objective 2: adaptation of treatment services.***

The survey then asked the counsellors questions about modifications to their treatment, training, training needs, and a number of other questions about how they adapted to COVID-19. To examine how they had modified counseling sessions during the pandemic, we used a checklist so that they could endorse as many items as required. Half of the counsellors (50%) reported cancelling face-to-face appointments, and many indicated using a telephone (81.3%), and video chatting (56.3%). Those that did continue to have appointments required masks (56.3%) or other social distancing measures (56.3%) (See Figure 3). For sample 2, in terms of modification of treatment during the pandemic, 91.7% reported using the phone and 83.3% reported using the internet (online). One important change from sample 1 is that masks (91.7%) and other social distancing measures (75%) were reported more often in sample 2 because the second survey was run after the lockdown period had ended. In addition, an open-ended question obtained three responses related to screening and social distancing including one response that they were “accepting fewer clients because of physical distancing (Sample 1; P1)”.

Figure 3. Modification of counseling services since the Covid-19 (Sample 1, May to July 2021, N = 16; Sample 2, April to June 2022; N = 12).

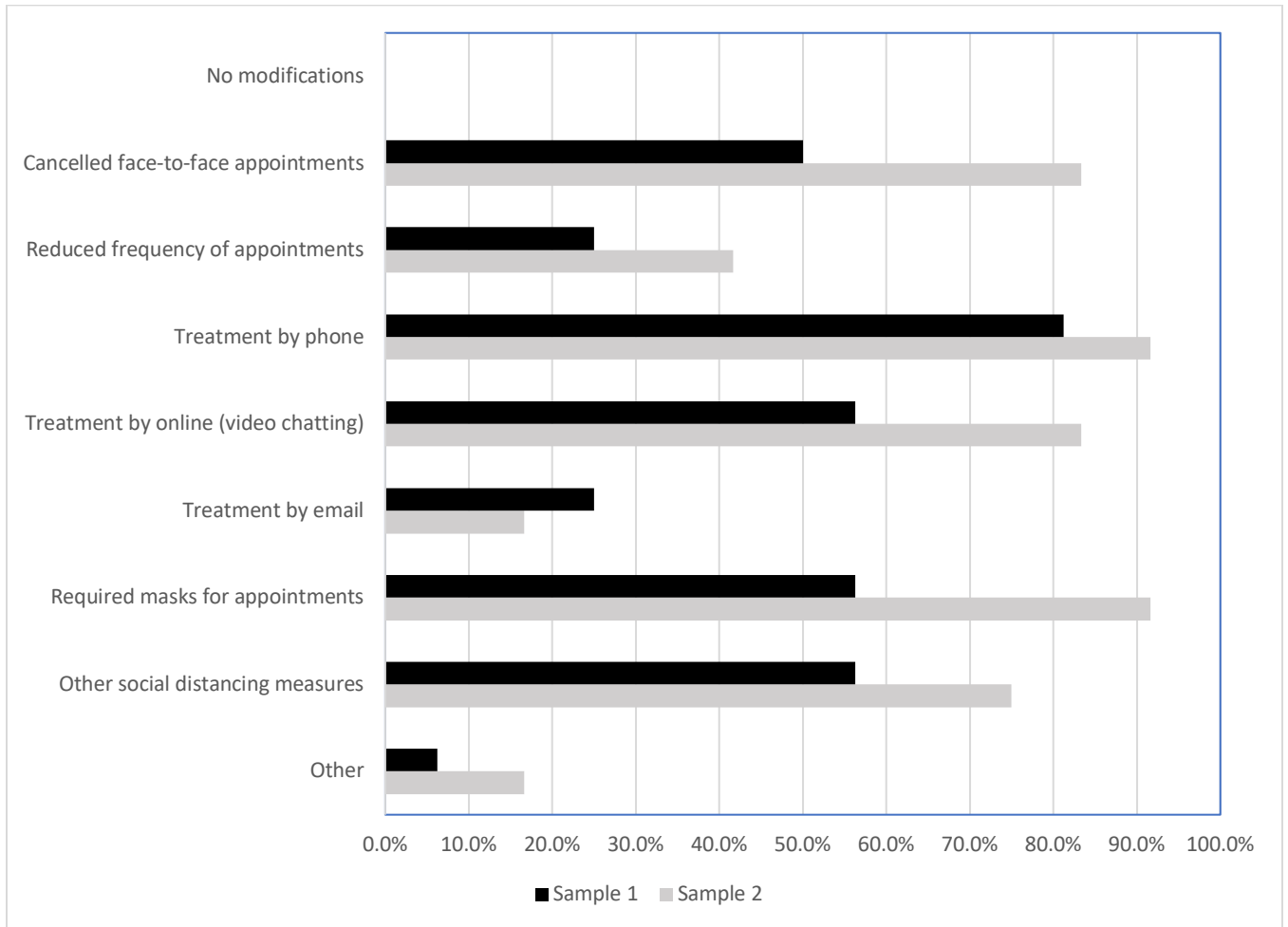
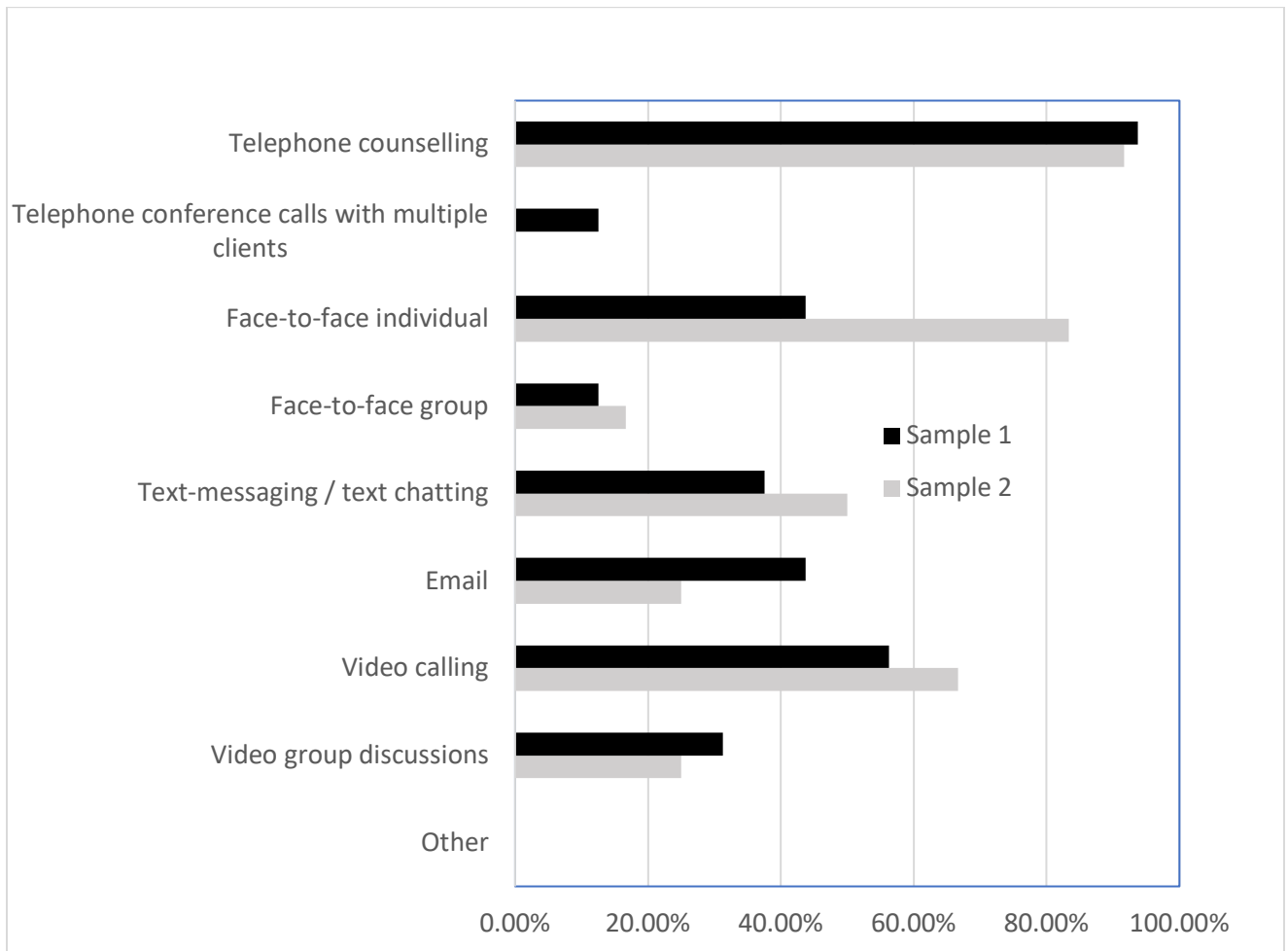


Figure 4. Type of counseling used during the pandemic (Sample 1, May to July 2021, N = 16; Sample 2, April to June 2022; N = 12).



Next, we asked the participants what types of counseling methods were used because of the pandemic. Some of the counsellors continued to use face-to-face meetings (43.8%) and a small percentage (12.5%) reported conducting face-to-face group therapy. Over 90% of counsellors used a telephone for counseling in both samples 1 and 2. In sample 1, video calling was the second most used type of counseling after telephone counseling (56%) and this increased to 66.7% in sample 2. A third reported having video group discussions (31.3%) in sample 1. Email and text messages were also used during this time with seven counsellors using email and five counsellors using text messages as a method to provide service (See Figure 4). None of the respondents reported using social media in any way. The results from the two samples were similar, but a larger number of people reported using face to face individual counseling in sample 2, but only a small number reported using face to face group counseling.

We then asked the participants about the challenges of delivering counseling services during the pandemic. The two biggest factors were keeping clients engaged and being able to reach clients (See Figure 5). Privacy and security issues were listed by 44% of the counsellors in sample 1, but only 8% of the respondents in sample 2. We also provided the counsellors with an opportunity to add additional concerns using the open-ended response option (see Table 3). Many of the counsellors listed technology problems including difficulties booking clients, time management problems, "shoddy internet" connections, "lack of a chat function" on one platform, and not being able to have clients "drop in" to a group. Technical issues were also the most often listed issue in Sample 2. Two counsellors noted issues with keeping the clients engaged. For example, one counsellor wrote "falling asleep in group, clients not dressed appropriately, smoking during groups, being in a car, not in a private location, being on phones during groups." Another noted that the clients were not treating telephone and virtual care in the same way they would treat face to face. Another counsellor listed having issues with clients not "physical distancing and asking clients to keep their masks on." Sample 2 voiced fewer concerns overall, with most focusing on issues about technology.

Figure 5. Challenges of delivering counseling during Covid-19 (Sample 1, May to July 2021, N = 16; Sample 2, April to June 2022; N = 12).

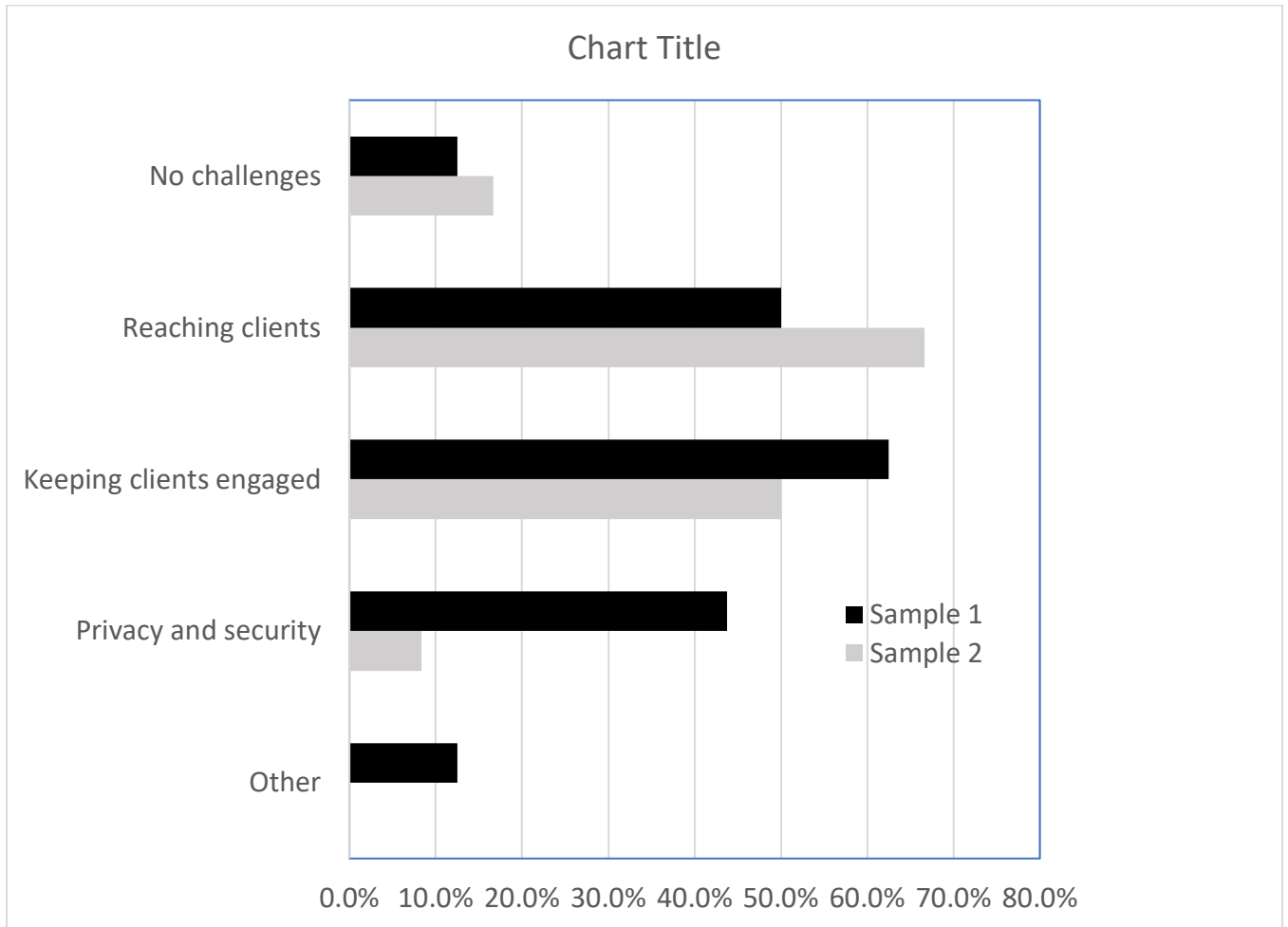




Table 3

Difficulties experienced during the pandemic (Sample 1, May to July 2021; Sample 2, April to June 2022).

Main Categories	Sample 1 (2020)	Sample 2 (2022)
Technological Issues	<ul style="list-style-type: none"> <li>• Poor wifi and other accessibility issue with wifi/internet based delivery methods such as video calls (P2)</li> <li>• Time management and scheduling time with clients (P12)</li> <li>• Not all clients have consistent access (P8)</li> </ul>	<ul style="list-style-type: none"> <li>• Not always reliable, not everyone has access to tech, unreliable internet connections in rural areas (P4).</li> <li>• Not knowing the short cuts to perform certain tasks (computer language) (P8)</li> <li>• Finding fillable worksheets (P4)</li> <li>• How to actually manage zoom breakout groups (P7)</li> </ul>
Privacy Issues	<ul style="list-style-type: none"> <li>• Being in a car, not in a private location (P4)</li> </ul>	
Problems with engagement	<ul style="list-style-type: none"> <li>• Clients not treating telephone and virtual care in the same way they would face-to-face (P4)</li> <li>• Falling a sleep in group, clients not dressed appropriately, smoking during groups, being in a car, not in a private location, being on phones during groups etc. (P4)</li> </ul>	
Other Issues	<ul style="list-style-type: none"> <li>• Physical distancing and asking clients to keep their masks on. (P19)</li> </ul>	

Note: These responses were to questions 4 and 5: “What difficulties have you experienced with technology?” and “In terms of your treatment practice what other challenges have your faced during this crisis”

In addition, we asked the counsellors if there were client populations that they were particularly concerned about who are not being adequately supported during the pandemic. As shown in Table 4 we grouped these responses into three somewhat overlapping categories. Three of the participants mentioned people who were living in poverty and in particular the homeless, five of the participants stated being concerned about people who had poor access to technology such as phones with limited features, or poor internet connections, and one participant listed seniors as a group of

concern. The results for sample 2 were the same, except for two additional categories: Indigenous groups and people with serious mental illness.

Table 4. Populations of special concern (Sample 1, May to July 2021; Sample 2, April to June 2022).

Main Categories	Sample 1	Sample 2
Poverty / Homeless	<ul style="list-style-type: none"> <li>• Those experiencing poverty. They don't always have phones, adequate phone plans, WIFI, or internet needed to engage in virtual services. (P2)</li> <li>• Homeless and addictions clients (P12)</li> <li>• Homeless women in small towns (P19)</li> </ul>	<ul style="list-style-type: none"> <li>• Transient clients (P4)</li> <li>• People who are low income (P7)</li> <li>• Low economic households that can only afford texting, or not able to afford the internet (P11)</li> <li>• Homeless, transient (P13)</li> </ul>
Those who lack the technology	<ul style="list-style-type: none"> <li>• Those who do not have access to tech, poor internet connection, poverty (P4)</li> <li>• People without access to technology or phones; people with low computer literacy (P3)</li> <li>• Clients whose phone has very limited features. Not able to fill up assessment forms and not able to scan and send back completed forms. (P10)</li> </ul>	<ul style="list-style-type: none"> <li>• People not using tech now very much (P7)</li> </ul>
Seniors	<ul style="list-style-type: none"> <li>• Seniors (P5)</li> </ul>	<ul style="list-style-type: none"> <li>• Elderly patients (P4)</li> </ul>
Indigenous groups		<ul style="list-style-type: none"> <li>• Indigenous groups (P4)</li> </ul>
Serious Dual Diagnosis		<ul style="list-style-type: none"> <li>• People with serious mental illness, dual diagnosis clients (P6)</li> <li>• People living in psychiatric boarding homes (P7)</li> </ul>

Note: Question: “Are there client populations of particular concern that you believe are not being adequately supported during the pandemic such as racialized groups or those experiencing poverty?; See table S16”

### ***Objective 3: Training and Support needs***

The participants were next asked what training they had received to help them deal with the pandemic (see Table 5). In total eight participants (5 from sample 1 and 3 from sample 2) reported receiving some training on the use of

technology such as delivering mindfulness online, using zoom, or using some other online platform. In sample 1 three people indicated that they did not need any training, and in sample 2, two people indicated that they had received no training in the use of new technology. Finally, a small number of people indicated that they had received the usual mainstream professional development.

Table 5. What types of training / support have you received? (Sample 1, May to July 2021; Sample 2, April to June 2022)

Main Categories	Sample 1 (2020)	Sample 2 (2022)
Training for online treatment	<ul style="list-style-type: none"> <li>• Webinars (P2)</li> <li>• Limited training on using the OTN platform (P3)</li> <li>• Delivering Mindfulness Online (P4)</li> <li>• Interactive webinar on how to use zoom functions (P6)</li> <li>• How to use Microsoft Teams (P10)</li> </ul>	<ul style="list-style-type: none"> <li>• Group use of zoom, how to manage the tech itself. (P4)</li> <li>• Webinars/attended a use of technology in therapy workshop many years ago (P6)</li> <li>• OTN (P2)</li> </ul>
None		<ul style="list-style-type: none"> <li>• Nothing formal (5)</li> <li>• None (P3)</li> </ul>
Not Needed	<ul style="list-style-type: none"> <li>• Did not feel training was necessary (P16)</li> <li>• N/A (P5)</li> </ul>	
Traditional training	<ul style="list-style-type: none"> <li>• The usual mainstream trainings (P12)</li> </ul>	<ul style="list-style-type: none"> <li>• Professional development w colleagues (P7)</li> </ul>

Note OTN is Ontario Telenursing, an online treatment service for nurses to interact online with patients.

According to the survey, many counsellors shared that they need or want additional training on certain types of counseling treatments, especially given the modifications to traditional ones due to the pandemic. The method on which many of the counsellors indicated they wanted more training was video group discussions (56.3%). Half of the counsellors (50%) said they wanted more training on video calling. This was followed by telephone counseling (31.3%) and conference calls with multiple clients (31.3%) (See Figure 6). In sample 2, the relative importance of telephone and video calling had shifted with half of the participants reported needed more training or support in the use of telephone counseling, and a third noting they needed more training with group video sessions. The results of the two samples were similar, but the relative importance of telephone and video group discussions had shifted with the telephone method being more frequently endorsed as a training need in sample 2 rather than video discussion. In addition, we also provide people with opportunities to tell us about their training needs. For the following table, we combined the responses to the open-ended questions 2, 7, 8, and 10 together and then extracted information about training needs (Table 6) and other support or resource needs (Table 7). For training needs, in both samples, the most commonly listed training needs were for (1) online counseling and remote counseling, (2) keeping clients engaged with remote

counseling. In sample 1, one counsellor noted a need for training in case management with remote technology and in sample 2 one participant noted they would like a workshop on applying for grants to improve the technology they have for private practice.

Figure 6. Methods counsellors need additional training on (Sample 1, May to July 2021, N = 16; Sample 2, April to June 2022; N = 12).

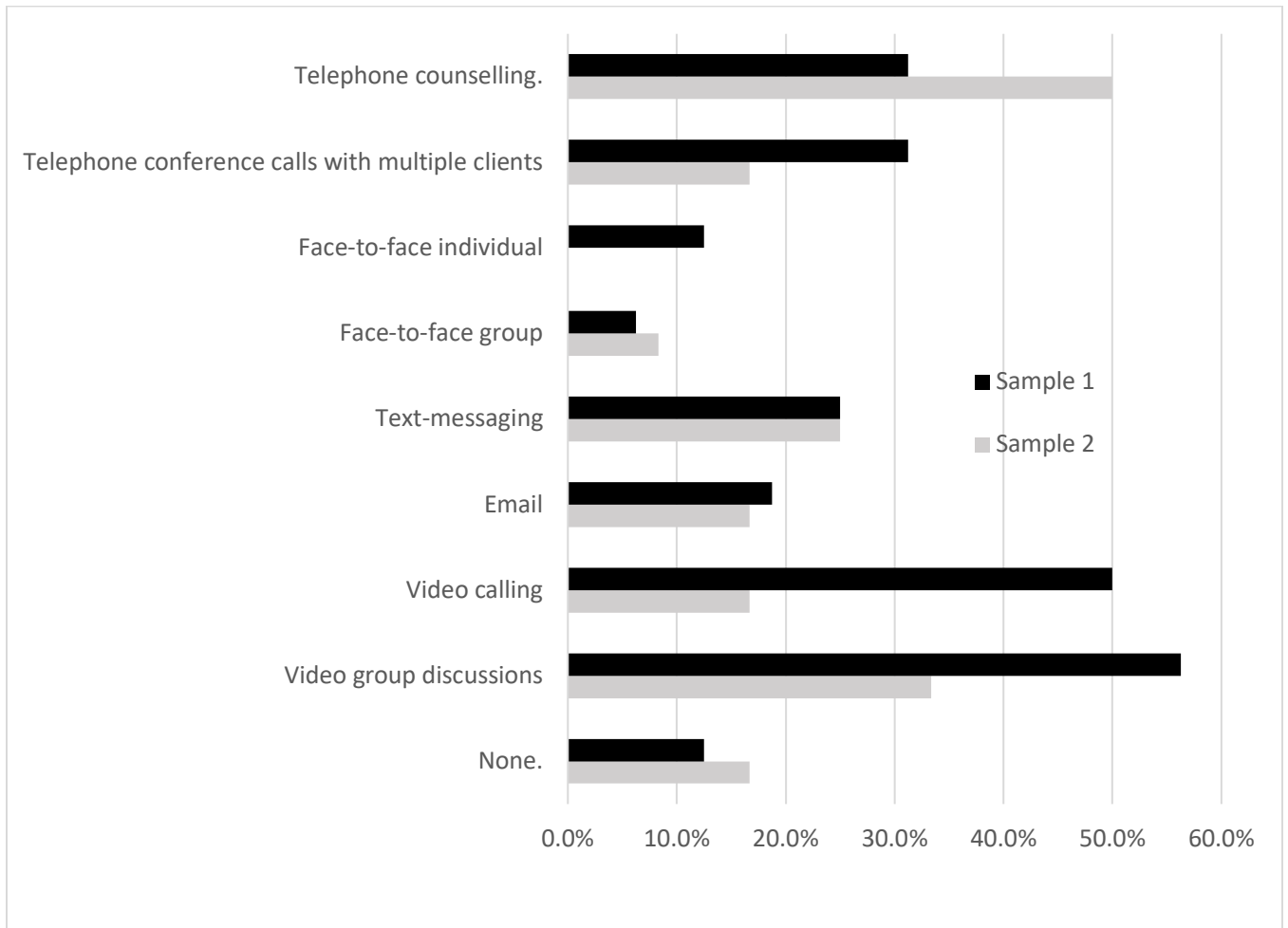


Table 6. Training needs from Sample 1 and Sample 2 (Sample 1, May to July 2021; Sample 2, April to June 2022).

Main Categories	Sample 1 (2020)	Sample 2 (2022)
Online counseling / remote counseling	<ul style="list-style-type: none"> <li>• Anything that can enhance my Presentation Skills using video conferencing (P17)</li> <li>• It has been a learning curb to shift to telephone and virtual counseling (individual/group). There have been some very challenging situations delivering telephone and virtual care. More training on dealing with these new formats would be helpful. (P4)</li> </ul>	<ul style="list-style-type: none"> <li>• Telephone counseling (P6)</li> <li>• Individual direct coaching, drop-in tips approach, bridged to my own organization (P7)</li> </ul>
Keeping clients engaged with remote technology	<ul style="list-style-type: none"> <li>• How to keep client engaged during phone sessions (P10)</li> <li>• How to help clients adjust to non-face-to-face treatment (P5)</li> </ul>	<ul style="list-style-type: none"> <li>• How to better engage clients when not face-to-face (P13)</li> </ul>
Case management	<ul style="list-style-type: none"> <li>• Telephone, text, email and video case management (P12)</li> </ul>	
Other		<ul style="list-style-type: none"> <li>• Workshops on how to apply for government grants to improve the technology in my private practice.... practical, how to steps (P11)</li> </ul>

Note: We extracted these responses from questions 2, 7, 8, and 10 because the answers overlapped and to simplify the discussion. The full list of responses to these questions are provided in the supplementary material, Tables S2, S7, S8, S10 for sample 1 and Tables S12, S17, S18, S20 for sample 2.

Support and resource needs are given in Table 7. Major concerns were for (1) better managerial support (2) better connectivity with coworkers during remote treatment, (3) a better life-work balance including more flexibility from management, and (4) more emotional support. In addition, in sample 1, two people voiced dissatisfaction with technology and in sample 2, two people voiced dissatisfaction with the political state of the healthcare system.

Table 7. Support and help dealing with the pandemic (Sample 1, May to July 2021; Sample 2, April to June 2022).

Main Categories	Sample 1 (2020)	Sample 2 (2022)
Managerial support	<ul style="list-style-type: none"> <li>• More resources on dealing with isolation (P15)</li> <li>• Managerial supports and knowledge to keep a unified/team atmosphere while we work from 'home'. (P12)</li> </ul>	<ul style="list-style-type: none"> <li>• More staff, clearer directives (P13)</li> </ul>
More connectivity with coworkers	<ul style="list-style-type: none"> <li>• More ways to connect with colleagues while delivering services virtually to maintain a feeling of connection with my workplace. (P2)</li> </ul>	<ul style="list-style-type: none"> <li>• More trust and flexibility from my full-time position; if I am full time in my private practice at the time, I would appreciate connecting with other sole proprietor agencies for support and idea sharing on how they are managing the restrictions (P11)</li> </ul>
Less Pressure, better work life balance	<ul style="list-style-type: none"> <li>• Shorter work days to balance demands at home and the effort that online/telephone work requires compared to in-person work (P3)</li> <li>• More flexibility and adjustment time provided by employers (P8)</li> <li>• No pressure of numbers (P17)</li> <li>• Paid mental health days (P19)</li> </ul>	<ul style="list-style-type: none"> <li>• Time off!!!!!!!!!!!!!!!!!!!!!!!!!!!!!! (P18)</li> <li>• If my employer tells me that I have to isolate, do not take the 10 days from my vacation bank. I need my vacation to get away from this shit (P8)</li> </ul>
Emotional Support	<ul style="list-style-type: none"> <li>• Self-care, training, (P4)</li> <li>• Financial and emotional support. (P17)</li> </ul>	<ul style="list-style-type: none"> <li>• More supports for staff to debrief, how to manage grief (we have lost a lot of clients in the past 2 years) (P4)</li> </ul>

Dissatisfaction with technology	<ul style="list-style-type: none"> <li>• Upgrades to OTN [Ontario Telemedicine Network] (P3)</li> <li>• Get rid of ‘Telus’ walk in virtual docs (P11)</li> <li>• Make technology easier for me and my clients (P18)</li> </ul>
Other	<ul style="list-style-type: none"> <li>• Get rid of bill 124, bill 106, etc. (Thanks.) (P12)</li> <li>• The recognition by our systems of care that we were in a crisis of care provision, before Covid and its simply accented it more. (P7)</li> </ul>

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Note: We extracted these responses from questions 2, 7, 8, and 10 because the answers overlapped and to simplify the discussion. The full list of responses to these questions are provided in the supplementary material, Tables S2, S7, S8, S10 for sample 1 and Tables S12, S17, S18, S20 for sample 2. Note bills 124 and 106 are related to labour law, pay equity and collective bargaining and many in the nursing field are opposed to them.

To provide more information on training and resource needs, participants were asked four questions about training and resources on a sliding scale of 0 to 100. As shown in Table 8 The average score for adequacy of support resources was 43.3 out of 100 (SD = 25.9) with 64.3% of the participants rating their resources as 50 (some) or lower. The results for sample 2 were similar to the results for sample 1. The same pattern of results was true for training on privacy, training on the use of the internet to communicate with clients and the use of telecommunication technology to communicate with clients. In all cases, the results would suggest that most of the participants would like more training and more resources. Analyses were conducted using t-test and there were no significant differences between the scores in sample 1 and sample 2.

Table 8. Adequacy of resources and training on privacy, the internet, and telecommunication (Sample 1, May to July 2021; Sample 2, April to June 2022).

	Sample 1 (2020)		Sample 2 (2022)	
	14		9	
	Mean	Std Dev	Mean	Std Dev
Have you found adequate resources to help you in adapting to new approaches to delivering counseling?	43.3	25.9	46.7	32.4
Have you participated in training or received any educational support on privacy implications and regulatory requirements with regards to using technology in your counseling practice?	38.1	30.5	51.2	20.5
Do you feel you need more training on how to use internet technology to communicate with clients?	44.0	31.6	50.9	32.6
Do you feel you need more training on how to use telecommunication technology to communicate with clients?	42.2	33.2	43.8	34.0

Note: The questions were answered on a sliding scale from 0 to 100. For questions 1 and 2, 0 was labelled “none”, 50 was labelled “some”, and 100 was labelled “a lot”. For question 3 and 4, 0 was labelled “have had enough”, 50 was labelled “Could use a little more”, and 100 was labelled “Would like a lot more training”, but we have recoded the scale so that smaller numbers mean the participants would like more training.

Finally, in sample 2, we asked the participants how confident they were that the pandemic was over on a sliding scale from “0% we're doomed; this is going to be on forever”, “50% somewhat confident its ending”, to “100% definitely ending”. Out of the 11 people who responded, the average was 35.5 (SD= 16.3). Only one person rated their confidence above 50%, and one person rated it as 50%. The rest of the sample all scored towards the low end of the scale. The counsellors would appear to be pessimistic about the pandemic ending.

### Discussion

The COVID-19 pandemic has brought many challenges to the population’s health, including concerns of worsening mental health and addiction (Håkansson et al., 2020). In this study, we documented emotional distress among people who provide addiction counseling services for people who have gambling problems, addictions, and mental health concerns. The majority of the counsellors surveyed reported more or a lot more distress during the pandemic – according to their scores on the Kessler, 27% were experiencing moderate distress while 15% were experiencing severe distress. In addition, according to the counsellors surveyed, there was an increase in the levels of their distress, with over 43% of clients feeling a lot more distress



and 50% feeling somewhat more distress since the pandemic. The overall increase in distress levels may be due to the added emotional toll of the pandemic on an already vulnerable population of people who suffer from problem gambling, addictions, or other mental health problem, making their situation and addiction issues heightened and harder to turn away from. Many large-scale and societal changes have been made to accommodate public health and safety procedures in order to reduce the spread of COVID-19. These changes have included a significant shift from in-person counselling to online/other remote and non-traditional forms of treatment delivery. Results from the current survey show that the counsellors have made modifications to their counselling services, including having to cancel face-to-face appointments or reducing the number of appointments they have, and requiring mask use and other social distancing measures, and increasing use of telephone counselling and video calling to deliver treatment services. In addition to phone and video calls, other but less often used forms of treatment delivery included email and asynchronous text messaging. These results are consistent with other studies that have shown that healthcare has shifted away from traditional in-person consultations towards a greater use of digital healthcare (Torous, Myrick, Rauseo-Ricupero, & Firth, 2020). We also included social media as an option because social media is used by some mutual support groups (see Ferentzy, Sanchez, & Turner, 2020), but notably none of the survey participants reported using social media. This is unsurprising given the confidentiality issues that can occur with social media.

Survey participants reported a number of problems with their newer methods of service delivery. A majority of the sample voiced concerns about keeping clients engaged with remote counselling. Others reported having problems reaching clients and a number of counsellors reported issues with privacy in the first sample. More information was revealed with the open-ended questions about difficulties. The most frequently noted issue from the participants was related to technological issues. Many counsellors noted problems with the use of online methods such as problems with unstable internet connections, problems with booking/scheduling clients, and issues with their current work platforms or access to reach clients using new online methods. In addition, they shared concerns about privacy and problems with keeping clients engaged during internet sessions. When asked about client populations of concern, many counsellors voiced concerns about people without access to technology, including senior citizens, those who live in poverty, and those who are struggling with homelessness and/or mental health issues. These issues reflect previous reviews of internet-based interventions for addressing problem gambling (van der Maas et al., 2019) and other mental health problems (Boden et al., 2021).

The results reveal that there are obstacles that interfere with access to care and counselling with both face-to-face and with remote counselling, depending on the various clients considered, and that the insights we have uncovered about remote method for some clients might be valid even in either pandemic or non-pandemic times. Over reliance on remote counselling may

create a barriers The results reveal that there are obstacles that interfere with access to care and counselling with both face-to-face and with remote counselling, depending on the various clients considered, and that the insights we have uncovered about remote method for some clients might be valid even in either pandemic or non-pandemic times. Over reliance on remote counselling may create a barriers for people experiencing poverty and homelessness, those who gamble online, especially youth/young adults, may appreciate the ease and convenience that online treatment offers (Shi, et al., 2021). In the section on challenges of delivering services during the pandemic smoking during the session was noted as a problem by the therapists. One of the reviewers of this paper noted that this could also be seen as an advantage for online therapy. In particular, while institutions have banned smoking during face-to-face groups, allowing smoking during online groups could increase the accessibility to treatment for clients who have use tobacco. Situations that are unacceptable in live sessions (e.g. smoking), might be accepted in remote sessions, potentially improving the accessibility treatment.

Society is rapidly moving towards greater digitalization and technology will likely have an increasingly important role to play in health care. As revealed by the participants, adoption of more digital health will require improvements in technology as well as better training in how to use technology. In addition, among the issues that were revealed in this study there is a need for further research on how to keep clients engaged during remote counselling. Another clear message from the results is that many of the counsellor have felt a lot of work related stress. The sudden shift to working from home created some problems for people such as a lack of collegial interaction and increased difficulty separating work and home. There is a need for research into how to improve the work situation for counsellors such as better management, support, connectivity with coworkers, improving their work-life balance.

Most of the counsellors reported having some problems with the transition to these modified methods of counseling from traditional methods. This is consistent with our expectation that counsellors would in general report frustration with the transition during the pandemic situation. Furthermore, findings from the study indicated that there is a need for additional training on methods of counseling reported by counsellors, especially given the change to online treatment. A little less than a third of the counsellors reported receiving some training in the use of technology for treatment, however, others reported receiving none. When asked which type of training they need, the most frequently endorsed items were for video group discussions, video calling, and telephone counseling. In sample 2 the relative importance of telephone and video discussions had switched places, but the results were similar. Other counsellors noted a need for training in the use of text messaging and email. We also used four sliding scale measures to determine training needs. In both samples, most of the participants indicated that they would like some more or a lot more training on internet technology,

telecommunication technology, and privacy. Similarly, in both samples, most said they would like more resources to help them adapt to new approaches to delivering counseling. Based on these results addiction counsellors do appear to be receptive to technology-based training which is consistent with the research literature (Mehrotra et al., 2018). Overall, the pandemic has led to significant changes in the way counsellors can provide treatment to clients with problem gambling, addictions and other mental health problems during the pandemic. Although these modified methods of treatment have been beneficial to many, it has also raised concern regarding populations who do not have access to these methods. In addition, the participants revealed that they have been under a great deal of stress during the pandemic. Many counsellors also voiced a number of complaints about a lack of support from their management, a feeling of isolation and a loss of connectivity with colleagues, a desire for less pressure and a better work-life balance, and a need for emotional support. The counsellors also were asked to tell us about how they were personally affected by the pandemic. The open-ended questions elicited ideas of stress and anxiety, difficulties with work and life balance with many stating that they had difficulty working at home with small children around and a need for time off. Also, some noted feeling distressed because they felt cut off from their family and friends. These results suggest that better emotional and financial support is needed to help treatment providers cope with the stress of the pandemic.

Future training for counsellors on these new methods is needed and hopefully, with the end of the pandemic, treatment options have widened for all those who need them. Findings from this study will provide valuable information about the impact of the pandemic on professionals who offer treatment for problem gambling, addiction, and mental health, how they have adapted to the pandemic. It also provides a great deal of insight into the challenges and opportunities of remote counselling methods as well as suggestions for future research on the trajectories of digital treatment. It also has provided us with a great opportunity for two – way knowledge exchange across the country with mental health treatment professionals in the midst of a pandemic (e.g., Turner, 2021, 2022).

The rapid shift from face-to-face treatment to online treatment was forced upon the treatment sector by the pandemic (Boden, et al., 2021, Cerasa et al., 2022; Marionneau & Järvinen-Tassopoulos, 2022; Sammons, 2020). Prior to the onset of the pandemic, too few well-designed controlled studies were conducted that compared face to face treatment with remote methods of treatment for problem gambling (van der Maas et al., 2019; Sagoe, et al., 2021; Turner, et al., 2023) or substance abuse (Lin, et al., 2019; Richards & Viganó, 2013). Thus, currently there is insufficient research to determine best practices for the various types of remote counselling for problem gambling or substance use discussed in this paper. The results regarding these new types of treatments modalities such as video group discussions, video calling, telephone counselling, conference calls with multiple clients need to be evaluated in terms of efficacy. Future targeted research comparing face to

face with remote counselling methods is needed in order elevate them to evidence-based practices.

### **Limitations**

The two main limitations of this study is the non-random nature of the sample and the small sample size. We recruited participants from an online forum for mental health and addictions treatment professionals who can receive training information from the EENet, so the participants may be predisposed to seek out training opportunities. In addition, the total sample across the two samples is only 28 which is somewhat on the small side and therefore may not be representative of treatment professionals in the field. It is likely that the people who responded were those who had an issue they wanted to present. An example of this is the counsellors who noted a government bill they would like to get rid of. However, the consistency of the results across the two samples gives us some confidence that our results do have some degree of reliability. Another limitation is that the second sample was directed at a different group of therapist (mental health and substance use) and occurred a year later as restrictions were being eased which limits our ability to contrast the two samples. Although there are differences between the two samples in the relative importance of various responses, overall, the results of the two samples are remarkably similar. Finally, most of the participants were from Ontario which may limit the generalizability of the results to treatment providers in other jurisdictions.

### **Conclusions**

The COVID-19 pandemic has led to significant changes in the way mental health and addictions treatment counsellors can provide services, including problem gambling, addiction, and mental health treatment services. Although newer and modified methods of treatment delivery can be successful at reaching and engaging clients, they also raise concerns regarding populations who do not have access to these methods, particularly people who are experiencing poverty or homelessness. Future training for counsellors on these new methods will help the treatment sector prepare for future pandemics. The findings from this study provide valuable information about the impact of the pandemic on treatment professionals for problem gambling, addiction, and mental health as well as providing guidance for their future training needs. In addition to documenting the difficulties of helping people during the pandemic, the results of the present study also provide insight into how the digitization of health care can lead to difficulties and as well opportunities for greatly expanding access to care. The pandemic caused a lot of disruption, but also provided a stimulus for advancement in remote care. Research is needed to evaluate these new methods of therapy for use as they become part of routine care.

**Declaration of conflict of interest**

The authors declare that they have no conflict of interest. Dr. Turner has received funding from the Ontario Ministry of Health and Long-Term Care, The Ontario Problem Gambling Research Centre, the National Center for Responsible Gambling (NCRG), and from Ontario Lottery and Gaming (OLG). In all cases, the contract included guarantees of independence and intellectual property rights for the researcher and the funders made no attempt to influence the study at any point. Turner has also acted as a consultant on gambling problems for various government and legal entities, reviewed grant applications and articles for publication, and developed treatment and prevention materials for problem gambling.

**Author statement**

This material is the authors' own original work, which has not been previously published elsewhere. The paper is not currently being considered for publication elsewhere. All the authors have reviewed and accepted the final version of the article.

**Ethics**

The study was reviewed and approved by the Research Ethics Board of the Centre for Addiction and Mental Health as protocol #013/2021. Approved, March 30, 2021.

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**Authors' contributions**

NT developed the idea for the survey in consultation with BA, and MvdM. TW helped with recruitment. SA conducted an initial analysis of the data. JS and NT organized the open-ended responses. NT wrote the first draft and NT, MvdM, JS and TW revised the paper. All authors approved the final version.

**Research Promotion**

Treatment professionals in Canada were surveyed about how they were impacted by COVID-19, about how they adapted to the pandemic, and their training needs. The participants reported a shift towards phone and online treatment during the pandemic, a need for additional training, as well as difficulties with technological, privacy, and keeping clients engaged. There is a need for research to define best practices for remote methods of counselling.

## References

- Boden, M., Zimmerman, L., Azevedo, K. J., Ruzek, J. I., Gala, S., Magid, H. S. A., ... & McLean, C. P. (2021). Addressing the mental health impact of COVID-19 through population health. *Clinical psychology review, 85*, 102006.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*, 77-101. <https://doi.org/10.1191/1478088706qp063oa>
- Brown, R., & Hickman, A. (2020). Changes in online gambling during the COVID-19 pandemic: April update.
- Burke, T., Berry, A., Taylor, L. K., Stafford, O., Murphy, E., Shevlin, M., ... & Carr, A. (2020). Increased psychological distress during COVID-19 and quarantine in Ireland: a national survey. *Journal of clinical medicine, 9*(11), 3481.
- Cerasa, A., Craig, F., Foti, F., Palermo, L., & Costabile, A. (2022). The impact of COVID-19 on psychologists' practice: An Italian experience. *Journal of Affective Disorders Reports, 7*, 100309. <https://doi.org/10.1016/j.jadr.2022.100309>
- Ferentzy, P., Sanchez, S., & Turner, N. E. (2019). Technology and mutual aid for problem gambling: the past and the future. *Journal of Concurrent Disorders, 1*(2), 20-30. DOI: <https://doi.org/10.54127/USQZ5590>
- Gainsbury, S. M., Swanton, T. B., Burgess, M. T., & Blaszczynski, A. (2021). Impacts of the COVID-19 Shutdown on Gambling Patterns in Australia: Consideration of Problem Gambling and Psychological Distress. *Journal of Addiction Medicine, 15*(6), 468–476. <https://doi.org/10.1097/ADM.0000000000000793>
- Galea, S., Brewin, C.R., Gruber, M., Jones, R.T., King, D.W., King, L.A., McNally, R.J., Ursano, R.J., Petukhova, M., Kessler, R.C. (2007). Exposure to hurricane-related stressors and mental illness after Hurricane Katrina. *Arch Gen Psychiatry, 64*(12), 1427-34. doi: 10.1001/archpsyc.64.12.1427. PMID: 18056551; PMCID: PMC2174368.
- Guilcher, S. J., Hamilton-Wright, S., Skinner, W., Woodhall-Melnik, J., Ferentzy, P., Wendaferew, A., . . . Matheson, F. I. (2016). “Talk with me”: perspectives on services for men with problem gambling and housing instability. *BMC Health Services Research, 16*(1), 1-13.
- Håkansson, A. (2020). Impact of COVID-19 on Online Gambling – A General Population Survey During the Pandemic. *Frontiers in Psychology, 11*. <https://www.frontiersin.org/articles/10.3389/fpsyg.2020.568543>
- Håkansson, A., Fernández-Aranda, F., Menchón, J. M., Potenza, M. N., & Jiménez-Murcia, S. (2020). Gambling during the COVID-19 crisis—a cause for concern. *Journal of Addiction Medicine, 14*(4), e10.
- Hodgins, D. C., & Stevens, R. M. G. (2021). The impact of COVID-19 on gambling and gambling disorder: Emerging data. *Current Opinion in Psychiatry, 34*(4), 332–343. <https://doi.org/10.1097/YCO.0000000000000709>
- Korn, D. (2000). Expansion of gambling in Canada: Implications for health and social policy. *Canadian Medical Association Journal, 163*(1), 61-64.
- Lin, L. A., Casteel, D., Shigekawa, E., Weyrich, M. S., Roby, D. H., & McMenamin, S. B. (2019). Telemedicine-delivered treatment interventions for substance use disorders: A systematic review. *Journal of substance abuse treatment, 101*, 38-49.

- Liu, S., Heinzl, S., Haucke, M. N., & Heinz, A. (2021). Increased psychological distress, loneliness, and unemployment in the spread of COVID-19 over 6 months in Germany. *Medicina*, 57(1), 53.
- Matheson, F. I., Hamilton-Wright, S., McLuhan, A., Shi, J., Wiese, J. L., Kryszajtys, D. T., ... & Guilcher, S. (2021). Self-management strategies for problem gambling in the context of poverty and homelessness. *Journal of Gambling Issues*, 48.
- Marionneau, V., & Järvinen-Tassopoulos, J. (2022). Treatment and help services for gambling during COVID-19: Experiences of gamblers and their concerned significant others. *Nordic Studies on Alcohol and Drugs*, 39(1), 10-24. doi:10.1177/14550725211030727
- Mediavilla, R., Fernández-Jiménez, E., Rodríguez-Vega, B., Gotor-Martínez, L., Rivelles-Sevilla, R. V., Rojano-Capilla, P., & Bravo-Ortiz, M.F. (2020). Adapting mental health care after the COVID-19 outbreak: preliminary findings from a public general hospital in Madrid (Spain). *Psychiatry Research*. 289, 113077. DOI: [10.1016/j.psychres.2020.113077](https://doi.org/10.1016/j.psychres.2020.113077)
- Mehrotra, K., Chand, P., Bandawar, M., Sagi, M. R., Kaur, S., Aurobind, G., ... & Arora, S. (2018). Effectiveness of NIMHANS ECHO blended tele-mentoring model on Integrated Mental Health and Addiction for counsellors in rural and underserved districts of Chhattisgarh, India. *Asian journal of psychiatry*, 36, 123-127.
- Moreno, C., Wykes, T., Galderisi, S., Nordentoft, M., Crossley, N., Jones, N., ... & Arango, C. (2020). How mental health care should change as a consequence of the COVID-19 pandemic. *The Lancet Psychiatry*, 7(9), 813-824.
- Price, A., Tabri, N., Stark, S., Balodis, I. M., & Wohl, M. J. A. (2022). Mental Health Over Time and Financial Concerns Predict Change in Online Gambling During COVID-19. *International Journal of Mental Health and Addiction*. <https://doi.org/10.1007/s11469-021-00750-5>
- ResearchAndMarkets.com. (2020 ). Online Gambling & Betting - Global Market Trajectory & Analytics. Retrieved from <https://es-us.finanzas.yahoo.com/news/global-online-gambling-betting-market-073800273.html>
- Responsible Gambling Council. (2022). *Gambling during COVID-19 in Ontario*. Toronto, ON: Responsible Gambling Council. Available from: <https://www.responsiblegambling.org/wp-content/uploads/RGC-Gambling-During-COVID-19-in-Ontario-March-2022-compressed-1-compressed.pdf>
- Richards, D., & Viganó, N. (2013). Online counseling: A narrative and critical review of the literature. *Journal of clinical psychology*, 69(9), 994-1011.
- Sagoe, D., Griffiths, M. D., Erevik, E. K., Høyland, T., Leino, T., Lande, I. A., ... & Pallesen, S. (2021). Internet-based treatment of gambling problems: A systematic review and meta-analysis of randomized controlled trials. *Journal of Behavioral Addictions*, 10(3), 546-565.
- Sammons, M.T. (2020). Effects of a Pandemic on Psychologists and the Public. *Journal Health Serv Psychol*, 46, 141–143. <https://doi.org/10.1007/s42843-020-00023-0>
- Sanchez, S., Jindani, F., Shi, J., van der Maas, M., Hagopian, S., Murray, R., & Turner, N. (2019). Acceptability of Internet-based interventions for problem gambling: a qualitative study of focus groups with clients and clinicians. *BMC Medical Informatics and Decision Making*, 19(1), 290.

- Scharf, D., & Oinonen, K. (2020). Ontario's response to COVID-19 shows that mental health providers must be integrated into provincial public health insurance systems. *Canadian Journal of Public Health, 111*(4), 473-476.
- Shi, J., Colder Carras, M., Potenza, M. N., & Turner, N. E. (2021). A perspective on age restrictions and other harm reduction approaches targeting youth online gambling, considering convergences of gambling and videogaming. *Frontiers in Psychiatry, 11*, 601712.
- Soklaridis, S., Lin, E., Lalani, Y., Rodak, T., & Sockalingam, S. (2020). Mental health interventions and supports during COVID-19 and other medical pandemics: A rapid systematic review of the evidence. *General Hospital Psychiatry, 66*, 133-146.
- Torous, J., Myrick, K. J., Rauseo-Ricupero, N., & Firth, J. (2020). Digital mental health and COVID-19: using technology today to accelerate the curve on access and quality tomorrow. *JMIR Mental Health, 7*(3), e18848.
- Turner, N.E., (2022). *The impact of COVID-19 on gambling-related crisis calls and treatment services*. Webinar Presented to Gambling Gaming and Technology Use Knowledge Sharing Webinar. September.
- Turner, N.E., (2021). *Covid-19 and Gambling; Impact and Adaptation*. Webinar presentation presented at the Annual Alberta Institute for Gambling Research conference, April, 2021.
- Turner, N. E. (2020). Covid-19 and Gambling in Ontario (Editorial). *Journal of Gambling Issues, 44*.
- Turner, N. E., Cook, S., & van der Maas, M. (2022). The impact of COVID-19 on gambling-related crisis calls in Ontario, Canada: an interrupted time series analysis. *Journal of Gambling Issues, 50*. 185-202. DOI: <https://doi.org/10.4309/SXJY8166>
- Turner, NE, Sanchez, S, Jindani, R, Shi, J, Sadeghi, N, van der Maas, M, Hagopian, S, De Figueiredo, D, Cooper, C, Shapiro, D, Murray, R, Hodgins, DC, Lobo, D, Elton-Marshall, T, (2023). Case study of A Pilot Online Treatment Service for Problem Gambling, *The Journal of Concurrent Disorders*, 1-28. DOI: 10.54127/YGPM6406
- Van der Maas, M., Shi, J., Elton-Marshall, T., Hodgins, D. C., Sanchez, S., Lobo, D. S. S., . . . Turner, N. E. (2019). Internet-Based Interventions for Problem Gambling: Scoping Review. *JMIR Mental Health, 6*(1), e65. doi:10.2196/mental.9419
- Walker, P., Whittaker, C., Watson, O., Baguelin, M., Ainslie, K., Bhatia, S., . . . Cattarino, L. (2020). Report 12: The global impact of COVID-19 and strategies for mitigation and suppression. Science; 12-06-2020, doi: <https://doi.org/10.1126/science.abc0035>
- Woodhall-Melnik, J., Hamilton-Wright, S., Guilcher, S. J., Wendaferew, A., Schuler, A., & Matheson, F. I. (2019). Reflections on Poverty, Homelessness and Problem Gambling: Discoveries from a World Cafe. *Journal of Gambling Issues, 42*. DOI:10.4309/jgi.2019.42.4