



RESEARCH ARTICLE

Feasibility and acceptability of a brief, online transdiagnostic psychotherapy for young adults

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Abstract

Background: The Unified Protocol (UP) for Transdiagnostic Treatment of Emotional Disorders is a flexible form of cognitive behavioural therapy targeting diverse mental health disorders in children and adults. **Objective:** The goal was to develop a brief version of UP tailored to the unique needs of young adults that could be administered in an online therapist-directed, group format. **Method:** Nineteen young adults (age 18-23) receiving mental health services from a community agency or a specialty clinic were enrolled in a feasibility test of the novel transdiagnostic, online intervention (five sessions, 90 minutes each). Qualitative interviews were conducted with participants after each session they attended and upon study completion (n = 80 interviews with n = 17 participants). Standardized quantitative mental health measures were collected at baseline (n = 19), end of treatment (5 weeks; n = 15) and at follow-up (12 weeks; n = 14). **Results:** Thirteen of the 18 participants (72%) who began treatment attended at least four of the five sessions. During the qualitative interviews, participants noted that core UP concepts such as understanding of emotions, mindfulness, cognitive flexibility, and behavioural activation are applicable in their day-to-day lives. Quantitative data showed a significant reduction in anxiety-related life impairment at follow-up compared to baseline, but not end of treatment compared to baseline. Reductions in global anxiety and depression symptoms were not statistically significant. **Conclusions:** This novel, brief version of the UP may be a feasible online intervention for young adults seen at mental health clinics for diverse mental health issues and warrants further study to demonstrate effectiveness.

Key Words: *unified protocol, cognitive behavioural therapy, psychotherapy, young adults, COVID-19*

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Résumé

Contexte: Le protocole unifié (PU) pour le traitement transdiagnostique des troubles émotionnels est une forme flexible de thérapie cognitivo-comportementale ciblant divers troubles de santé mentale flexible chez les enfants et les adultes. **Objectif:** Le but était d'élaborer une version abrégée du PU adaptée aux besoins uniques des jeunes adultes qui pourrait être administrée à un format de groupe en ligne dirigé par un thérapeute. **Méthode:** Dix-neuf jeunes adultes (18-23 ans) recevant des services de santé mentale d'un organisme communautaire ou d'une clinique spécialisée ont été inscrits à un test de faisabilité de la nouvelle intervention transdiagnostique en ligne (cinq séances, 90 minutes chacune). Des entrevues qualitatives ont été menées auprès des participants après chaque séance à laquelle ils ont assisté et à la fin de l'étude (n = 80 entrevues avec n = 17 participants). Les mesures de santé mentale standardisée quantitative ont été recueillies à la base (n = 19), à la fin du traitement (5 semaines; n = 15) et au suivi (12 semaines; n = 14). **Résultats:** Treize des 18 participants (72 %) qui ont commencé le traitement ont assisté à au moins quatre des cinq séances. Durant les entrevues qualitatives, les participants ont noté que les principaux concepts du PU comme la compréhension des émotions, la pleine conscience, la flexibilité cognitive et l'activation comportementale sont applicables dans leur vie quotidienne. Les données quantitatives indiquaient une réduction significative dans les troubles de la vie liés à l'anxiété au suivi comparé à la base, mais pas à la fin du traitement comparé à la base. Les réductions de l'anxiété générale et des symptômes de dépression n'étaient pas statistiquement significatives. **Conclusions:** Cette nouvelle version abrégée du PU peut être une intervention faisable en ligne pour les jeunes adultes vus dans des cliniques de santé mentale pour divers problèmes de santé mentale et demande plus d'étude pour en démontrer l'efficacité.

Mots clés: *protocole unifié, thérapie cognitivo-comportementale, psychothérapie, jeunes adultes, COVID-19*

Introduction

Mental illness is one of the leading causes of disability among young people up to age 24, reducing quality of life and increasing premature mortality (1). Adolescence and young adulthood are peak times for the emergence of mental illness with 75% of mental disorders emerging before the age of 25 (2). Young adults (defined as age 18-24: 3) are especially likely to be diagnosed with anxiety (approximately one in five: 3) or depression (approximately one in ten: 4). However, only one in three young adults with mental illness will receive evidence-based treatment (6). Delays in mental health treatment lead to poor outcomes and increased cost of treatment (7).

Recent evidence suggests that the mental health of young people declines between early adolescence and young adulthood (6). This is a critical gap since young adulthood marks the final period of accelerated brain plasticity, so untreated mental health issues during this period may gradually become more established in the mature brain (8).

Multiple factors coincide to reduce mental health service utilization by about half in early adulthood (9). At an individual level, stigma associated with mental illness, a desire to be independent and a decline in parental involvement all contribute to reduced help-seeking behaviours (10). At an institutional level, most healthcare systems transition people from pediatric to adult services at age 18, resulting in disrupted or discontinued care (11). At a scientific level, there is a lack of evidence-based treatments that are tailored to the needs of young adults (10).

Treatments that are designed for young adults should account for several factors. First, mental health interventions that are transdiagnostic may be helpful since these interventions treat symptoms that are common across psychiatric diagnoses and young adults often manifest symptoms of mental illness which do not fit neatly into diagnostic categories created for the wider adult population (12-14). Also, interventions that are brief and/or modular are preferred because young adults are more likely than older adults to leave treatment prematurely (15). High dropout rates may be influenced by perceptions among young adults that they are being offered ineffective or non-developmentally sensitive treatments (10).

One of the most effective transdiagnostic mental health interventions is the Unified Protocol (UP) for Transdiagnostic Treatment of Emotional Disorders (16,17). This psychotherapy was developed by identifying features common to different cognitive behavioural therapy protocols that effectively treat single disorders (18,19). The adult version of the UP has been adapted for use with children (ages 7-12; 19,20) and adolescents (ages 13-17; 21,22). Two recent meta-analyses confirmed that the UP has equivalent effectiveness to cognitive behavioural therapy programs designed for specific diagnoses, such as anxiety disorders, eating disorders, substance use disorders, depression, obsessive-compulsive disorder, borderline personality disorder and PTSD (14,24). There is no manualized version of the UP for young adults (age 18 to 24), even though young adulthood is increasingly acknowledged as a unique developmental

stage that is separate from early teenage years and older adulthood (2,3,25).

The standard protocol for administering UP to adolescents or adults involves approximately 15 sessions of individual therapy that last 1 hour each (16,22). However, there has been recent interest in increasing the cost-effectiveness and efficiency of UP therapy by shortening the intervention and/or providing the treatment in a group format for a range of age groups (26–30). For example, the UP has been adapted for delivery in schools to adolescents in a group format using nine sessions lasting 55 minutes each (26,27). Likewise, a single session version of the UP lasting 120 minutes has been used with groups of undergraduate and graduate students (28,29). The parenting components of the UP for children and adolescents have also been adapted to create a four session parenting intervention (30). Similar to the standard UP, the shortened UP interventions appear to reduce emotional disorder symptoms (e.g. anxiety and depression), although the adapted formats have focused on secondary prevention of mental illness in a general population rather than treatment of established mental illness (26–30). Considering that the adapted UP treatments were being applied to youth and young adults whose mental health may be in flux, this type of early intervention fits well with the clinical staging model whereby mental health issues that are left untreated tend to progress and become more severe through adolescence and early adulthood (12,13).

There are several reports of the UP being used as an online intervention, but these tend to use a self-directed format (29,31–33). We are only aware of one published report of the UP being delivered online in a therapist-directed format (30). The adaptation of therapies to enable online delivery has taken on increased urgency during the COVID-19 pandemic as the mental health system has been forced to rapidly switch to online delivery of services (34). Several systematic reviews and meta-analyses have compared the effectiveness of in-person cognitive behavioural therapy to online cognitive behavioural therapy (either therapist-directed or self-directed) and have found that all three formats have similar efficacy, although several authors have urged caution in declaring equivalence, noting that few studies have directly compared these formats (35–37). There are several potential benefits of online psychotherapy over in-person psychotherapy: reducing physical barriers to accessing care (e.g. transportation); ability to review content or therapist feedback between sessions, increased fidelity to treatment model and reducing stigma associated with accessing mental health services (38,39). Indeed, there is some evidence that adults (age 18–64) were more likely to attend psychotherapy sessions conducted online during the COVID-19

pandemic than in the period just prior when services were offered in-person (34).

The present research was a feasibility study of an online, therapist-directed, group psychotherapy intervention based on the UP and tailored to the developmental needs of young adults. As defined by Bowen and colleagues (40), the term Feasibility includes multiple components assessed in the present study: Demand (uptake of the intervention by the target group), Acceptability (how the target group reacted to the intervention), Adaptation (changes made relative to an existing model) and Implementation (whether the intervention was delivered as planned). As this was a feasibility study of a new protocol, the primary outcomes are based on feasibility of the intervention (participant attendance, intervention fidelity, qualitative feedback from participants) while changes in quantitative measures of mental health (psychometric survey results) are considered secondary outcomes.

Methods

Participants

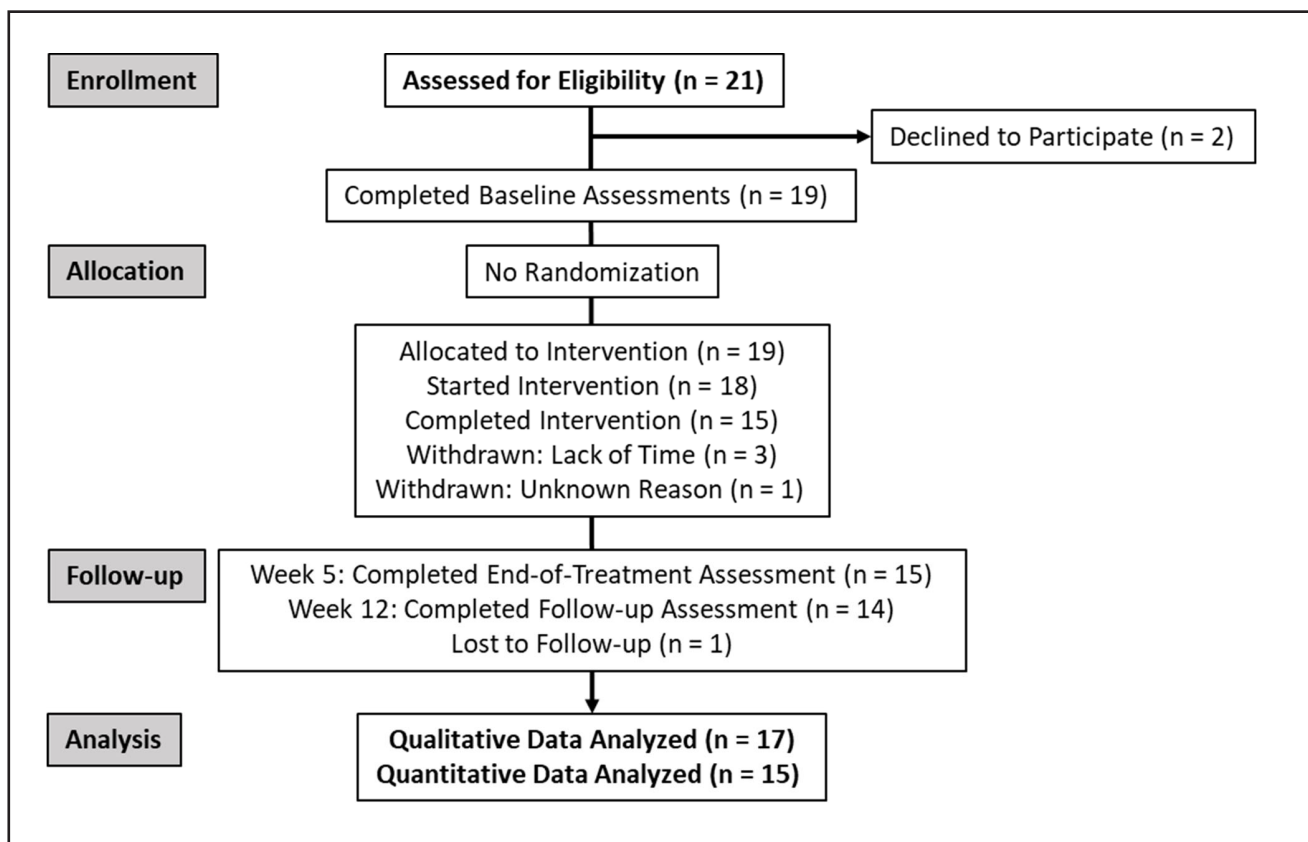
Study information is reported according to the guidelines for Transparent Reporting of Evaluations with Non-randomized Designs (41). This study was approved by the Conjoint Faculties Research Ethics Board at the University of Calgary and Alberta Health Services. All individuals provided written consent electronically prior to participation.

Participants were recruited through two tertiary care clinics within Alberta Health Services and through Hull Services, a non-profit that provides community-based mental health and behavioural supports for children and youth. Hull Services did not conduct an independent ethics review since they considered the review by the University of Calgary to be sufficient oversight.

The two Alberta Health Services clinics were considered tertiary care because they required a referral from a physician or mental health provider and only served individuals with a clear mental health issue or diagnosis. One Alberta Health Services clinic specialized in treating young adults (age 16–24) with a range of mental health issues while the other clinic treated adults of all ages with mood disorders. The Hull Services program was considered a community provider because they served young adults (age 16–24) who self-referred themselves to the program. Clients often learn about this Hull Services program through school-based mental health services, mental health units in hospitals or other community agencies.

Recruitment took place over a 2-week period prior to the start of the group. Clinicians at Alberta Health Services

Figure 1. CONSORT flowchart of participants.



or Hull Services referred clients to the study based on the eligibility criteria, and a member of the research team conducted a second screen to verify eligibility based on the same criteria. The following inclusion criteria were applied: 1) Age 18-24; 2) Receiving mental health services from Alberta Health Services or Hull Services; 3) Access to a digital device with camera, microphone and ability to use videoconferencing software; 4) Fluent in English. The following were exclusion criteria: 1) Recent suicide attempt or need for hospital-based psychiatric services; 2) Low cognitive function (IQ estimated at < 70 although IQ was not assessed directly). The minimum therapy group size was set at four while the maximum group size was set at ten. As this was a feasibility study of a new protocol, the goal was to recruit 20 young adults to assess intervention feasibility. A researcher gave each participant a document explaining how to use Zoom and answered any questions they had about the

software. See Figure 1 for the CONSORT diagram detailing recruitment and assessment.

Adaptation of Intervention

The Brief UP was created by modifying content from the adolescent version of the UP manual (21; see Table 1A and 1B for a comparison of the two protocols; additional protocol details available from the authors on request). Briefly, a five-session version was created for weekly delivery in a group format via Zoom videoconferencing software (Zoom Video Communication, San Jose, CA, USA). Each session lasted 90 minutes. Content was tailored to the challenges of young adulthood, such as developing autonomy and self-identity, managing parental and romantic partner conflict, as well as balancing social life, education and employment. Therapy was delivered by two to three facilitators per session, who were a study author (GD and AR: clinical social workers; SBP: a psychiatrist) and/or a clinician at one

Table 1A. Comparison of Intervention Design Between the Brief Unified Protocol (present study) and the Published Manual of the Unified Protocol for Adolescents		
Parameter	Brief Unified Protocol	Unified Protocol Manual
Total Sessions	5	Varies: usually 12-21, average is 16
Parent/Caregiver Involvement	No	Yes (typically 1-3 sessions)
Format	Group	Individual (can be adapted for group)
Setting	Online videoconference	In-person
Individualized Top Problems Assessment	No	Yes

Table 1B. Comparison of Session-by-session Content Between the Brief Unified Protocol (present study) and the Published Manual of the Unified Protocol for Adolescents			
Brief Unified Protocol		Unified Protocol Manual	
Session Topic	Number of Sessions	Session Topic	Number of Sessions
Psychoeducation on emotions	1	Building and Keeping Motivation	1-2
Non-judgmental attitude and present moment awareness	1	Getting to know your emotions and behaviours	2-3
Thinking more flexibly	1	Introduction to emotion-focused behavioural experiments	1-2
Emotion-focused behavioural experiments	1	Awareness of physical sensations	1-2
Review and planning for the future	1	Being flexible in your thinking	2-3
		Awareness of emotional experiences	1-2
		Situational emotion exposure	2+
		Reviewing accomplishments and looking ahead	1

of the participating agencies. The content included Power-Point slides, YouTube videos and worksheets for practicing skills between sessions.

Intervention Training and Clinical Supervision

Training and supervision of study clinicians was done online via Zoom by the lead author (GD). Clinicians received six to seven different 1-hour training / supervision sessions. Training was conducted as a mix of didactic instruction on the core therapeutic concepts as well as a collaborative discussion on how to get young adults to participate and engage with the content. Clinical supervision was done to address key issues such as intervention implementation and acceptability for participants.

Demographics and Mental Health

Surveys were administered at baseline (within one week prior to the start of UP therapy), at the end of treatment (5 weeks) and at follow-up (12 weeks). All measures were completed remotely by participants using REDCap software hosted on University of Calgary servers. Participants were given a \$10 Amazon gift card for completing each survey.

As part of the baseline assessment, standard demographic elements were collected, including age, gender, ethnicity, education, household composition, employment and income. We also asked about changes in education, employment and income due to the COVID-19 pandemic. Participants were asked about any previous psychological services they had received or were currently receiving.

At all three survey time points, functional impairment due to anxiety was measured with the Children's Anxiety Life Impairment Scale (42) while anxiety and depression symptoms were measured using the Revised Children's Anxiety and Depression Scale – 25 Item Version (43). These instruments were chosen because they are a part of the International Consortium for Health Outcomes Measurement (<https://www.ichom.org/>) standard set for monitoring youth mental health up to age 24.

Implementation Fidelity

Adherence to the psychotherapy protocol (fidelity) was rated after each session by the clinicians delivering the intervention as well as one member of the research team who observed the session. The fidelity assessment was created by identifying 8-15 concepts per session that were considered core to achieving therapeutic benefit. These fidelity items were modified from the fidelity forms used by the lead developer of the UP for Adolescents (JEM) to monitor fidelity to the UP for Adolescents protocol in research studies and clinical practice (22). Each item was marked as Yes (concept covered) or No (concept not covered).

Acceptability of Intervention

Brief qualitative interviews were conducted with each participant after each session they attended. No financial incentives were provided for taking part in qualitative interviews. Interviews lasted 10-30 minutes and assessed the acceptability of the intervention for participants. To mitigate risk of bias, interviews were conducted by a researcher who was not connected to clinical care and the researcher was instructed not to provide participants with information about UP or its applications. The interview guide consisted of questions aimed at obtaining perceptions of participants regarding the acceptability of the Brief UP for young adults. The primary prompts used were: 1) *What did you find most/least helpful about the session this week?* 2) *What did you find challenging or easy about the session this week?* 3) *How did you find the assignments from the last session?* 4) *What are your thoughts about using Zoom to deliver this intervention?* During the final interview after session 5, participants were first asked to respond to these prompts when thinking about session 5. Next, they were asked to respond to these prompts when reflecting on the intervention as a whole (hereafter referred to as the "exit interview"). Participants who missed session 5 (or withdrew from the study prematurely) were still asked if they would complete an exit interview. A trained member of the research team conducted each qualitative interview and followed up on these prompts to probe for further information. Interviews were audio recorded and transcribed verbatim by a professional

transcriptionist. A member of the research team reviewed each transcript by listening to the original recording to verify its accuracy.

Data Analysis Plan

Qualitative data were analyzed using summative content analysis (44). Three topics of interest were defined based on key questions in the interview guide ("Helpful Content", "Completed Homework", "Opinion about Telehealth") and three topics were defined based on a desire to optimize the structure for the novel intervention ("Number of Sessions", "Length of Sessions", "Size of Group"). Codes were then created for possible responses (e.g. Positive, Negative, Mixed). Transcripts were read and reread while applying latent content analysis to interpret the context and meaning of the words used by participants. Analysis was performed by two study authors (DL and MR) with any disputes or questions resolved by a third author with extensive qualitative experience (GD). Each participant could only be assigned one code per topic per interview. If a participant did not provide a codable response to a topic, no code was assigned for the interview. As part of the summative content analysis, a sample of quotes were selected to further explain codes that were commonly logged within each topic.

Quantitative data were analyzed and visualized using GraphPad Prism (GraphPad Software, San Diego, CA, USA) and SPSS (IBM, Armonk, NY, USA). If there were no missing values at any time points, a repeated measures ANOVA was used. The analysis strategy was intention to treat, so if there were any missing timepoints due to participant attrition, a mixed-effects model was used and missing values were estimated with the restricted maximum likelihood method. If Mauchley's Test of Sphericity returned a significant result, Geisser-Greenhouse corrections were applied. If the ANOVA or mixed-effects model yielded a significant effect of time, t-tests were used to compare the values at each time point. We did not employ an adjustment for multiple comparisons because this would lead to a high risk of Type II error (45), especially given the small sample size, which we wanted to mitigate given that this is a feasibility study.

Results

Demographics and Mental Health

Demographic data on those who completed the study and those who withdrew are presented in Table 2. There were no statistically significant demographic differences among those who completed the intervention versus those who withdrew (analyzed using χ^2 tests, all $p > .05$) although the

Table 2. Demographics of study participants at baseline (Completed Intervention n=15; Withdrawn n=4)		
	Completed Intervention % (n)	Withdrawn % (n)
Gender		
Male	40 (6)	0 (0)
Female	40 (6)	100 (4)
Transgender / Non-Binary	20 (3)	0 (0)
Ethnicity (multiple responses possible)		
European	67 (10)	25 (1)
Asian	27 (4)	50 (2)
Mixed	13 (2)	0 (0)
Indigenous	0 (0)	25 (1)
Live with parents	67 (10)	75 (3)
Completed high school	87 (13)	50 (2)
Student	47 (7)	75 (3)
Employed before COVID-19 pandemic	33 (5)	25 (1)
Employed or on paid leave during COVID-19 pandemic	13 (2)	0 (0)
Household income loss due to COVID-19 pandemic	80 (12)	75 (3)
Ran out of money in last 12 months	40 (6)	50 (2)
Enrolled in psychological services at baseline	87 (13)	No Data
Using prescription drugs for mental health at baseline	73 (11)	No Data
	Mean, SD (Min-Max)	Mean, SD (Min-Max)
Age	20.0, 1.7 (18-23)	20.0, 2.2 (18-23)
Household size including self	4.1, 1.4 (2-7)	3.8, 1.5 (2-5)

study is likely underpowered to detect these differences. For both those who completed the study and those who withdrew, the mean age was 20 years old with a range of 18-23 years. All participants who completed the program had current or past exposure to other psychological services and/or psychiatric medication (Table 3; these data were collected after enrolment for some participants, so the data are not complete enough to be reported for those who withdrew from treatment).

A significant reduction in functional impairment due to anxiety was observed ($F_{2,27} = 5.85$, $p = .008$); specifically, scores were lower at follow-up as compared to both baseline ($t_{27} = 3.41$, $p = .002$) and end of treatment ($t_{27} = 2.06$, $p = .050$; Fig. 2A), but not end of treatment compared to

baseline. There was no statistically significant change in anxiety symptoms ($F_{2,27} = 1.28$, $p = .294$; Fig. 2B) or in depression symptoms ($F_{1,3, 17.0} = 1.25$, $p = .292$; Geisser-Greenhouse corrected; Fig. 2C). However, there was a trend for a reduction over time in symptoms of depression (Mean_{Baseline} = 18.1; Mean_{End of Treatment} = 17.7; Mean_{Follow-up} = 16.1).

Demand for Intervention (Adherence to Therapy)

The Brief UP intervention was administered in three different therapy groups between May and August 2020. Among the 21 individuals referred to the study team and offered treatment, 19 completed the baseline assessments and 18 began treatment. Two groups were formed from two

Table 3. Summative content analysis of qualitative feedback (n=17)

	Session 1	Session 2	Session 3	Session 4	Session 5	Exit	Most Frequent Response ^a
Helpful Content							
Yes	11	14	9	9	7	13	17
No	1	0	0	0	0	0	0
Completed Homework							
Yes	5	5	4	1	3	N/A	6
Partial / Attempted	4	1	4	0	5	N/A	6
No	2	4	2	1	1	N/A	2
Opinion about Telehealth							
Positive	5	9	6	4	3	4	8.7
Mixed	2	2	2	2	0	6	3.7
Negative	6	0	1	0	3	3	4.7
Number of Sessions (5)							
Too Few	0	0	0	1	1	7	7
Just Right	0	1	0	0	0	2	3
Too Many	0	0	0	0	0	0	0
Length of Sessions (90 min)							
Too Short	0	0	0	1	2	1	3
Just Right	0	1	0	0	0	2	3
Too Long	2	2	0	0	0	4	6
Size of Group (n = 4-8)							
Too Small	1	1	0	0	0	1	2
Just Right	2	1	0	0	0	1	2
Too Large	2	0	1	0	0	0	3

Some participants could not be reached for every interview and others did not provide a codable response to each prompt.

^a Data in the "Most Frequent Response" column reflects the most commonly elicited response for an individual participant across multiple interviews. If different codes were assigned with equal frequency for the same participant, their response was split across multiple categories, which sometimes results in fractions being displayed.

different programs at Alberta Health Services (Program 1: n = 8 enrolled, n = 7 completed; Program 2: n = 7 enrolled, n = 4 completed). One group was formed from one program at Hull Services (n = 4 enrolled, n = 4 completed). Among the 15 participants who completed the study, ten attended all five sessions, three attended four sessions, one attended three sessions and one attended two sessions. Among the four participants who withdrew from the study, one did not attend any sessions, two attended one session and one attended two sessions.

Implementation Fidelity

Fidelity item agreement between different clinicians was 89% while agreement between researchers and clinicians was 90%. Collapsing across raters, the percent of fidelity items covered in each session was 93% for sessions 1 and 2, 97% for session 3, 90% for session 4 and 89% for session 5.

Acceptability of Intervention (Qualitative Analysis)

A total of 80 qualitative interviews were conducted out of a possible 86 interviews that could have been conducted based on attendance and study participation (93% interview rate). Table 4 shows the six topics that were coded by members of the research team and the responses of participants after each session and during the exit interview. The most frequently coded response for a given participant across interviews is also noted.

Therapeutic Content

Every participant described the therapeutic content of every session as helpful, with the sole exception being one participant after the first session (Table 4). Even when participants noted that they had been exposed to some of the concepts previously, they still shared that it was helpful to review the

Table 4. Mental health treatments among those who completed study (n=15)		
Psychotherapy	Enrolled at baseline % (n)	Past enrolment % (n)
Any psychological services	87 (13)	93 (14)
General supportive counseling	53 (8)	67 (10)
Cognitive behavioural therapy	33 (5)	47 (7)
System and family therapy	13 (2)	27 (4)
Dialectical behavioural therapy	13 (2)	20 (3)
Trauma-focused cognitive behavioural therapy	13 (2)	7 (1)
Narrative therapy	7 (1)	7 (1)
Eye-movement desensitization and reprocessing	7 (1)	7 (1)
Play and art therapy	0 (0)	27 (4)
Cognitive processing therapy	0 (0)	13 (2)
Other	7 (1)	20 (3)
Prescription medication use among those who completed study	Yes % (n)	No % (n)
Prescription medication use	93 (14)	7 (1)
Mental health prescription medication use	73 (11)	7 (1)
Participants were asked if they were on a prescription medication and, if so, what medications. Three participants indicated that they were taking prescription medication but did not name the medication(s), so it is unclear if they were on prescription medications for their mental health.		

concepts and be provided with illustrative examples. The group format was viewed as helpful because it removed a sense of isolation that can accompany mental illness: “it’s nice just acknowledging the feelings that I’m having...just to know there are other people out there that are dealing with the [same] feelings” (#10, Session 1). Participants also noted how they utilized specific UP skills in their daily life. For example, one participant shared how the mindfulness skills helped them: “I found it really helpful to put myself in the moment and forget about everything else going on, because I had a really big event in the last week... I put myself in the moment [and] got ready for what I needed to do.” (#7, Session 2). Another participant explained how the cognitive flexibility skills taught in session 3 had helped him: “Learning about automatic thoughts and automatic triggers really brought to light a lot of struggles I’ve been having recently...I was able to realize that I was getting way too ahead of myself, and I need to slow down and think” (#3, Session 3).

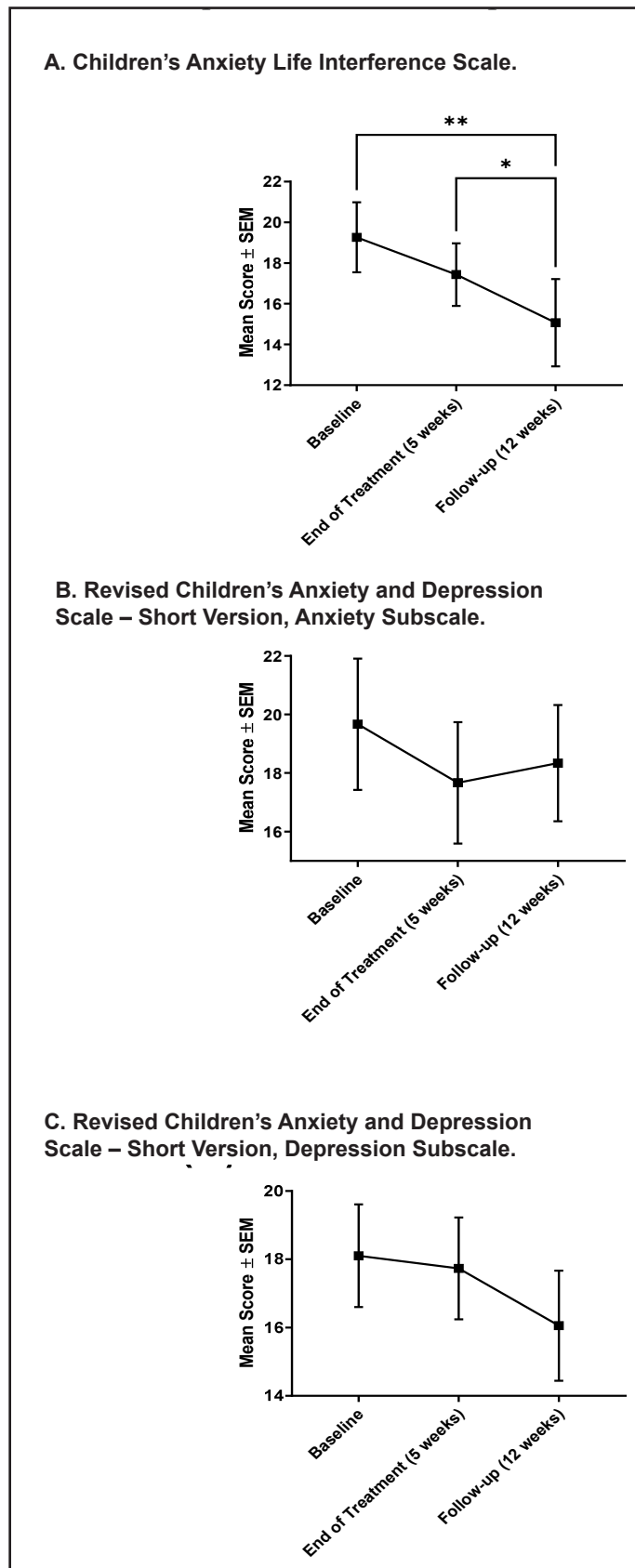
Homework

Interview responses indicated that the homework engagement rate averaged 76% across sessions (43% completed, 33% partial or attempted). Commonly cited reasons for not completing homework were a lack of time, unclear instructions from facilitators and the fact that homework was emailed rather than available as a hard copy, so they had to either print the assignment or complete it on a computer. When explaining why they completed the homework in one week but not another, one participant suggested that certain assignments felt more relevant: “I found it challenging for myself in the first week because I didn’t have any traumatic or big events happen, and that was what the homework was based around... but the week after, I found it easier to fill it out because I had a bigger event happen” (#7, Session 2).

Online Delivery

Diverse and contrasting views and opinions were offered by participants on the use of Zoom for psychotherapy. Some participants felt Zoom made it harder to participate because non-verbal cues are harder to accurately read. Others felt

Figure 2. Changes in anxiety and depression over time.



* p < .05; ** p < .01 using t-tests

that the anonymity of an online session made it easier for them to be open and vulnerable. For instance, one participant felt that Zoom impaired their participation: “I think one of the biggest [challenges] was just trying to get myself to talk and speak up a little more...the whole Zoom thing is just so confusing... [I didn’t know] when to put my hand up.” (#1, Session 1). At the same time, another felt it was easier to participate online: “I do like Zoom personally. I’m a bit more shy in person than over Zoom, so I like it as a delivery method” (#10, Session 1).

Some participants said they preferred Zoom because it reduces barriers to accessing care while others noted that the digital setting reduced engagement. “I actually liked it better [than in-person groups]. Usually if you’re doing group, it’s a new building, and I take transit and there’s been a lot of times where it’s messed up and I end up not finding the building or panicking [that] I’m not going to get there in time...” (#15, Exit). Other participants noted that it was harder to focus while using Zoom: “In terms of using Zoom, it’s harder to focus sometimes because you’re in the comfort of your own home, so you’re more likely [to be] distracted by things and you don’t necessarily have a professional setting to work with” (#3, Exit).

Dose of Intervention

The prevailing opinion among participants was that they would have appreciated more sessions that were shorter in duration: 70% of participants felt that more sessions should have been offered while 50% said that the session length was too long. For instance, one participant mentioned: “I feel like I would have liked to do a twelve-week program, with all this stuff and go through every example... I loved when [the therapist] would go through our experiences with us and place these concepts in our experience so that they were more relevant” (#2, Exit). Likewise, another participant noted when requesting shorter sessions: “I would lose my focus near the end of the session, the last twenty minutes or something” (#7, Exit).

Discussion

The present study was the first to examine the different feasibility components of a brief, online, therapist-directed version of the UP specifically designed for use with young adults. Consistent with the feasibility study design framework established by Bowen and colleagues (40), the present feasibility study showed that this intervention was associated with high *demand*, good *acceptability*, effective *adaptation*, and evidence for successful *implementation* across a community and a tertiary care setting for young adults.

Demand for the intervention was high with the majority of participants attending all five sessions. Although the sample size was small, attrition rates for the Brief UP were comparable to the average for this type of intervention: for example, in-person cognitive behavioural therapy for adults with depression has a 25% dropout rate according to a systematic review by Hans and Hiller (46). It is difficult to determine whether the online nature of the present intervention increased or decreased attrition although a systematic review comparing face-to-face and online psychotherapies found that attrition rates were similar (37).

Regarding *acceptability*, in qualitative interviews every participant said some of the content was helpful, including the two who withdrew from the study (Table 3). In particular, participants cited how the mindfulness strategies helped them tolerate the distress associated with the experience of intense emotions. Participants also cited the group discussions as beneficial, because they realized that others also experienced distressing thoughts. The homework engagement rate was high (76%), which is important since assigning homework has been shown to reinforce learning and potentiate the impact of psychotherapy (47,48).

Adaptation to online delivery was deemed successful overall. Participants generally had a positive opinion about delivery of the intervention using telehealth and accepted it as the best option available. Increased ease of accessing care was a perceived benefit but some participants felt that the quality of interactions was reduced online. Past data shows that, at a population level, more young adults prefer in-person therapy relative to online therapy (49,50). In qualitative interviews, young adults and their mental healthcare providers have expressed beliefs that it takes longer to build rapport and establish a therapeutic alliance with online therapy (51–53), a notion that is supported by some empirical studies (35) but not others (54,55). Depending on a young adult’s living situation, online therapy can create barriers to care if the client’s internet connection is insufficient or if they can’t access a private space to speak openly about issues that they don’t want family or friends to overhear (51,52,56).

Even though there is an overall preference for in-person therapy among young adults, individual factors may predispose certain young adults to prefer online therapy. Most importantly, online therapy can mitigate transportation as a barrier to accessing care (38,49,56). There is also some evidence that young adults with more severe anxiety or depression may have a preference for online formats (57). In qualitative interviews, certain young adults have noted that they would feel stigmatized walking into a therapists’ office but find the relative anonymity of an online platform more

palatable (51). Given that the clinical efficacy of online interventions appears to be the same as in-person interventions (35–37), online psychotherapies like the Brief UP may be a useful way to increase uptake of mental health services by young adults who have a need or preference for online therapy.

With regards to *implementation*, fidelity monitoring showed that clinicians were able to administer the intervention in a standardized and consistent manner. The percent of items covered in each session was high (89–97%) as was item-level agreement between different clinicians (89%) and between researchers and clinicians (90%). The slightly lower fidelity scores for sessions 4–5 (relative to session 1–3) were attributable to fewer items being covered that involved personalizing behavioural strategies and planning how to use UP skills in the future. These results may reflect the challenge of individualizing a treatment that is only five sessions and delivered in a group format. Considering that this study recruited participants from one community mental health provider and two tertiary care clinics, the strong overall fidelity ratings suggest that this novel intervention can be implemented successfully in a variety of settings that serve young adult mental health needs.

In this feasibility study, mental health outcomes were treated as secondary outcomes, in large part because we were examining changes over time among a group of individuals who were often receiving concurrent therapies. A significant reduction in anxiety-related life impairment was found with the total score reduced by 22% from baseline to 12-week follow-up (Fig. 2A). Baseline anxiety-related life impairment was 1 standard deviation above the mean reported in clinical samples with this instrument, although the reduction in symptoms over time (4 points, about 0.5 standard deviations) was similar to what was previously reported after a full-length CBT protocol targeting anxiety (42).

We found a trend towards reductions in anxiety symptom scores (7%; Fig. 2B) and depression symptom scores (11%; Fig. 2C) from baseline to follow-up. Baseline anxiety and depression scores were around the clinical threshold (two standard deviations above the population mean: (58) and we observed a change equivalent to approximately 0.5 standard deviations. These results are similar to a single-session version of the UP delivered to college students, which showed a 12% reduction in anxiety and a 21% reduction in depression at the 3-month follow-up (28). Likewise, the manualized UP for adolescents showed a 13% reduction in anxiety and depression symptoms upon completion of 8–21 weekly sessions (23). Although the above studies and the present study all used different measures of anxiety and depression, it is noteworthy that there is not a clear relationship

between the length of the UP intervention and the change in symptom score. A meta-analysis on the dose-response relationship of standard psychotherapy found that patients who exhibit milder symptoms respond more rapidly to treatment, but that anyone who does not show improvement by session eight is unlikely to do so with continued treatment (59). These data suggest that brief interventions like the one in the present study may be optimally suited for those with mild-to-moderate symptoms, but that those who do not respond to the Brief UP are unlikely to respond to the full length UP.

Limitations

Some results of the present study should be interpreted with caution considering that this was a feasibility study of a new protocol with no control group. All longitudinal studies without a control group may be confounded by time-related events, but the present study may be especially susceptible to this issue given the rapid and deleterious effect that the COVID-19 pandemic had on youth mental health (60,61).

A second potential limitation is that, during the study period, 13 of 15 participants (87%) were enrolled in other counseling or therapy and 11 of 15 (73%) were taking prescription medication for their mental health (Table 4). Therefore, it's possible that improvements in our secondary (mental health) outcomes were due (fully or partially) to concurrent interventions.

Although qualitative interviews with participants were done to assess treatment acceptability, they may have had some unintentional therapeutic effect by encouraging participants to spend additional time thinking about their perceptions of treatment concepts covered in the group (i.e. fulfilling a role similar to the benefits of homework on CBT outcomes: 50). Interviews were conducted by a member of the research team who was not connected to clinical care, but we are unable to account for whether social desirability bias influenced responding. The short duration of weekly interviews (10–30 min) and the targeted nature of the questions meant that we could not explore certain participant experiences in depth.

This intervention was created by experts in UP and young adult mental health with input from young adults, but it should be noted that there was no systematic knowledge synthesis or formal patient engagement process that may have helped optimize the intervention protocol.

Future Directions

It is common for an evidence-based mental health intervention to change from a therapist-directed format to a self-directed format when it is adapted for online delivery, especially if the target audience is young adults (62). The materials used to deliver the present intervention (PowerPoint slides, YouTube videos and handouts) may lend themselves to a self-directed format through the use of a mobile app. Future research should therefore be performed to test the feasibility, acceptability and effectiveness of a self-directed version of the Brief UP. A dismantling study comparing a self-directed format versus a therapist-directed format would determine the relative contribution of the content alone versus the process of participating in a group facilitated by a professional therapist alongside peers who are experiencing similar mental health issues. Finally, a randomized control trial of the Brief UP compared to a waitlist condition would provide a more definitive test of the effectiveness of the Brief UP.

Conclusions

The present study was one of the first studies of a brief, transdiagnostic psychotherapy intervention being delivered online in a therapist-directed format to young adults. Fidelity and treatment adherence were strong, suggesting that this intervention is feasible for use among community and tertiary mental health providers. Promising results in terms of improving mood symptoms suggest that the Brief UP may be effective as a stand-alone intervention or as an adjunct to other treatments for young adults with mental health issues.

Conflict of Interest

JEM receives compensation for providing training and consultation on the Unified Protocols for Transdiagnostic Treatment of Emotional Disorders in Children and Adolescents. JEM also receives royalties from the sale of these treatment manuals. The other authors have no financial relationships or other ties to disclose.

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