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Empirical Research

Examining coaches' asynchronous written feedback in two blended ACT-based interventions for enhancing university students' wellbeing and reducing psychological distress: A randomized study☆

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ABSTRACT

Introduction: Internet-delivered cognitive and behavioral interventions have been shown to be effective in enhancing university students' well-being and reducing symptoms of stress and depression. However, few studies have examined the active components that may contribute to their effectiveness. The present study aimed to explore what kind of online written coach feedback would be useful on participants' outcomes and satisfaction in two Acceptance and Commitment Therapy (ACT) blended interventions.

Methods: ACT-trained master's level psychology students offered coach support (n = 50; 88% female, Mage = 26 years) to university students, who were randomly assigned to two parallel groups, each offered three face-to-face sessions and an online five-module ACT-based program. One group (iACTa, n = 61) received free-form personalized, individually tailored written feedback, and the other (iACTb, n = 62) received semi-structured written feedback with minimal personalization options.

Results: Both groups had gains from participating in the interventions across all measures, including well-being, psychological flexibility, mindfulness skills, and reduction of stress and depression symptoms. However, there were no significant differences between the two groups except for well-being, which favored the iACTb. The iACTa group saw mostly small to large effect sizes (d = .44–0.80) while medium to large effect sizes were observed for the iACTb group (d = .69–0.83). The retention rate was good (iACTa: n = 51, 83.6%; iACTb: n = 54, 87.1%). Semi-structured features almost halved the coaches' written response time for each participant (31 min in iACTa vs. 18 min in iACTb).

Conclusions: The results shed light in the very limited research available and suggest that ACT-based, blendedinternetinterventionswithsemi-structured coachfeedback and minimally tailored features can be as effective as interventions with fully personalized feedback in treatment outcomes and participants' satisfaction.

1. Introduction

With the prevalence of mental health disorders among university students rising (Hunt & Eisenberg, 2010;Ibrahim, Kelly, Adams, & Glazebrook, 2013), the demand for on-campus counseling services far exceeds universities' available resources (Auerbach et al., 2018). According to global epidemiological studies by the World Health Organization, an estimated 20–30% of university students have a 12-month prevalence of DSM disorders, of which the most common are anxiety and mood disorders (Auerbach et al., 2016, 2018). However, the prevalence of university students in distress obtaining support remains low, with estimates that only one out of 3–5 students receiving treatment (Auerbach et al., 2016; Eisenberg, Hunt, Speer, & Zivin, 2011). In addition to distress, poor mental well-being is associated with significantly impaired academic performance (Boulton, Hughes, Kent, Smith, & Williams, 2019; Bruffaerts et al., 2018) and university dropout (Ishii et al., 2018). Therefore, it is crucially important to reach students through early intervention to prevent mental health issues from becoming severe and chronic. Universities offer an ideal ground for universal and preventative interventions to help students develop coping skills for their mental well-being.

In addition to traditional counseling services, psychological Internet-

☆ Data is available upon reasonable request.

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based interventions (IBIs) are easily accessible, time-, and cost-effective alternatives (e.g., Andersson & Cuijpers, 2009; Andersson, Carlbring, Berger, Almlöv, & Cuijpers, 2009; Andersson & Titov, 2014) can provide scalable, evidence-based treatments to a large body of university students. A recent meta-analysis by the WHO World Mental Health International College initiative (WMH-ICS; Harrer et al., 2019) concluded that IBIs for university students are potentially effective for a wide range of mental well-being conditions. Research has shown that IBIs can be as effective as face-to-face interventions for both the prevention and treatment of a broad range of psychological problems, including depression, anxiety (e.g., Carlbring, Andersson, Cuijpers, Riper, & Hedman-Lagerlöf, 2018; Ebert et al., 2015; Josephine et al., 2017), and stress management (Harrer et al., 2019). The comparable results are true if IBIs are accompanied by human guidance, usually via written support, such as texting, chat messages or email (Andersson, Bergman Nordgren, Buhrman, & Carlbring, 2014; Andrews et al., 2018; Cuijpers et al., 2019) or a combination of phone calls with messaging (Bernstein et al., 2022). Research has shown that guided Internet interventions are more effective than unsupported ones, with larger effect sizes on treatment outcomes (e.g., Baumeister, Reichler, Munzinger, & Lin, 2014; Conley, Durlak, Shapiro, Kirsch, & Zahniser, 2016; Cowpertwait & Clarke, 2013; Linardon, Cuijpers, Carlbring, Messer, & Fuller-Tyszkiewicz, 2019; Richards & Richardson, 2012), better treatment adherence (Mohr, Cuijpers, & Lehman, 2011), increasing users' engagement (Borghouts et al., 2021) but are less scalable (Fairburn & Patel, 2017) and less cost-effective. However, human support intensity in IBIs has shown inconsistent results. For example, in IBIs targeting depression, higher mean effects have been reported when there is contact before and during intervention (d = 0.76), compared with contact only during intervention (d = 0.58), contact only before intervention (d = 0.44), and no contact (d = 0.21) (Johansson & Andersson, 2012). In contrast, a meta-analysis observed no significant differences between these varied treatment guidance approaches (Königbauer, Letsch, Doebler, Ebert, & Baumeister, 2017), raising the question as to what format of guided support and from whom is useful. Furthermore, the analyses of 31 meta-analyses revealed a total of 45 effect sizes, and only half of them (48%) indicated that Digital Mental Health Interventions (DMHI) with human support were notably more efficient compared to unsupported ones (Werntz, Amado, Jasman, Ervin, & Rhodes, 2023). Moreover, when comparing highly trained support providers with paraprofessional-level support, the study indicated that some DMHIs support may be sufficient by individuals with less extensive mental health training (Werntz et al., 2023). In addition, WHO's meta-analysis (Harrer et al., 2019) on university students concluded that small intervention effects were found on depression (g = 0.18), anxiety (g = 0.27) and stress (g = 0.20), with higher effects for interventions of moderate length (1–2 months) but concluded that guidance did not significantly moderate intervention efficacy. These conclusions may have resulted due to the analyzed interventions varying considerably in terms of length, intensity and rationale (Harrer et al., 2019), confirming the need for studies utilizing a randomized design, which involves varying presence or quantity of support (Bernstein et al., 2022).

One emerging IBI approach is blended interventions, in which online and face-to-face components are combined into one treatment, thereby integrating the possible advantages from these two treatment modalities while mitigating disadvantages (Wentzel, van der Vaart, Bohlmeijer, & van Gemert-Pijnen, 2016). Blended interventions offer advantages such as enabling personal guidance when needed and a structured, scalable online program to work through and practice in between counseling sessions, thereby encouraging students' self-efficacy and trust in their own ability to self-manage and adapt (Wentzel et al., 2016). Furthermore, Fairburn and Patel (2017) suggest that to obtain the benefits of human support while preserving scalability and cost-effectiveness, non-specialists, rather than therapists, may provide support in guided Internet interventions. Within the university context, where there are diverse needs and limited resources, blended interventions with trained, nonprofessional facilitators may offer a low threshold of support alternatives that can potentially be both effective and affordable. Growing research has shown that blended interventions with professionals can be effective in enhancing well-being and reducing depression and anxiety (Erbe, Eichert, Riper, & Ebert, 2017), as can those without professionals (Lappalainen et al., 2014; Räsänen, Lappalainen, Muotka, Tolvanen, & Lappalainen, 2016). However, blended interventions have been investigated much less than other guided Internet interventions, and more understanding is needed about what suits whom and how treatment operationalization via technology can be optimized (Wentzel et al., 2016).

Support for the effectiveness of Acceptance and Commitment Therapy (ACT; Hayes, Strosahl, & Wilson, 1999) has been established for a wide range of psychological problems (A-Tjak et al., 2015; French, Golijani-Moghaddam, & Schröder, 2017; Ruiz, 2012) and psychological wellbeing (Howell & Passmore, 2019). In addition, some meta-analyses on IBIs have shown ACT's effectiveness in improving well-being, psychological flexibility and mental health outcomes for depression, anxiety, and stress (Brown, Glendenning, Hoon, & John, 2016; Han & Kim, 2022; Klimczak, San Miguel, Mukasa, Twohig, & Levin, 2023; O'Connor et al., 2017; Spi jkerman, Pots, & Bohlmeijer, 2016; Thompson, Destree, Albertella, & Fontenelle, 2021). ACT-based IBIs targeting university students have also been shown to be effective in enhancing well-being (Ferrari et al., 2022; Lattie et al., 2019), psychological flexibility and alleviating the effects of the most common psychological problems experienced by students (Hunt & Eisenberg, 2010), such as stress, anxiety, and depression, either as standalone self-help (Davies, Morriss, & Glazebrook, 2014; Lattie et al., 2019; Levin, Haeger, Pierce, & Twohig, 2017; Levin, Hayes, Pistorello, & Seeley, 2016; Viskovich & Pakenham, 2018), guided (eg. Levin, Krafft, Carter, Davis, & Twohig, 2021) or blended-guided interventions (Räsänen et al., 2016).

Nevertheless, limited research has examined the active components that may contribute to the effectiveness and acceptability of IBIs, especially those that are ACT-based (Han & Kim, 2022; Levin, Krafft, & Twohig, 2020; Vasiliou et al., 2021). As mentioned earlier, online support and feedback provided to clients are critical components of guided interventions. Little is known about the kind of online feedback that would be effective and useful in treatment outcomes, participants' adherence, and attrition (Bernstein et al., 2022). In terms of online guidance, there is a great need to know more about feedback format (e.g., synchronous vs. asynchronous feedback; automated vs. personalized feedback), and the dose–response relationship of guidance (e.g., how much time is spent on each client) to yield effective outcomes (Baumeister et al., 2014b; Bernstein et al., 2022; Koningbauer et al., 2017; Werntz et al., 2023). Written feedback options can vary from fully automated to tailored messages that can potentially optimize outcomes by, for instance, strengthening the motivation to engage in the intervention and fostering participant accountability and self-efficacy (Mohr et al., 2011; Schueller, Tomasino, Lattie, & Mohr, 2016). A recent review concluded that the therapist time used in guided interventions may not be critical for treatment outcomes (Königbauer et al., 2017). In addition, there is a great need for studies comparing active, structurally equivalent conditions that can determine the specific ACT intervention ingredients (Lattie et al., 2019) that contribute to the promotion of well-being and the alleviation of common psychological problems in university students (Howell & Passmore, 2019). When it comes to blended IBIs, there is little knowledge of the aforementioned issues.

To address these challenges in blended IBIs, we evaluated the impact of two active, brief, and guided ACT-based interventions on university students by comparing two asynchronous written feedback formats by psychology student well-being coaches. The interventions were identical (five online modules, three face-to-face coach sessions and three asynchronous written sessions online with a coach), with the only difference being varying the level of personalization in the feedback format and time allocation in coach response. Due to the positive outcomes in our previous RCT study (Räsänen et al., 2016)) with a waitlist group vs

iACT, in which there were two face-to-face sessions and five asynchronous free-form, fully personalized coach feedback sessions, we hypothesized that free-form, fully personalized feedback compared to a semi-structured feedback would a) be more effective in treatment outcomes, b) facilitate in higher participants' adherence, engagement and satisfaction albeit being more time-consuming for the coaches. First, we compared the treatment outcomes of the two blended interventions on participants' self-reported well-being, psychological flexibility, mindfulness skills, perceived stress, and depression symptoms. Second, we investigated the participants' treatment and written feedback acceptability and satisfaction. Finally, we examined the participants' adherence, attrition as well as the coaches' adherence to the treatment protocol, especially in terms of time used for online feedback.

2. Method

2.1. Setting and participants

A total of 123 university students (n = 103; 83.7% female) aged 19–32 years (M^{age} = 25 years, *SD* = 4.52) were recruited from the (University of Jyväskylä, Finland) during 2015–2016. Participants were included in the study if they were (1) aged at least 18 years; (2) enrolled students; (3) having access to the Internet; (4) reporting experiencing some form of psychological distress, such as stress, low mood, and/or anxiety; and (5) willing to commit to a free intervention within an eight-week period. Participants were excluded if they were (1) participating simultaneously in a psychological or a pharmaceutical intervention and (2) having suicidal ideation and needed immediate support. See the participants' flow for more details (Fig. 1).

Participants were recruited through a wide variety of sources in

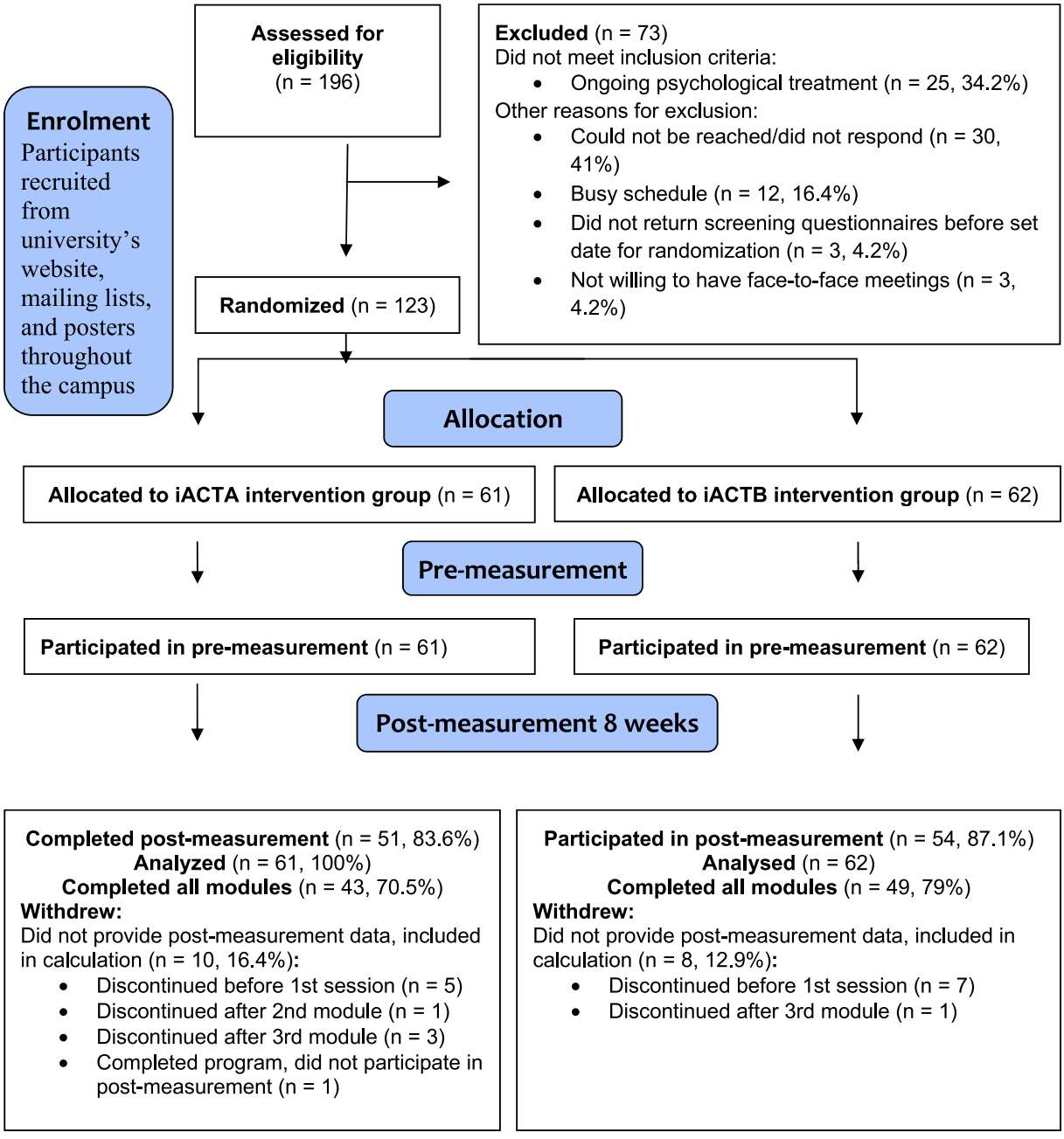

Fig. 1. Participant flow chart.

collaboration with Student Life's wellbeing counseling services (e.g., referrals from student advisers and counseling experts), healthcare services (referrals), university's communication's department (digital and printed advertisements) and email announcements to student unions' mailing lists. Interested participants filled an online screening questionnaire and, if needed, further contacted via phone. Participants who fulfilled the study's inclusion criteria, were sent an email inviting them to the coached program along with a link to the online baseline questionnaire that was to be filled with a provided code number. Informed consent to participate in the study was obtained from the participants through a checkbox in the questionnaire, with options to a) freely participate in the study or b) not participate but still receive normally the program with coach support. Upon the first meeting with the coach, participants were given the possibility to ask further questions and a printed informed consent was collected.

Participants were randomly assigned to two parallel, active treatment groups, namely Group A (iACTa, n = 61) and Group B (iACTb, n = 62), using a computerized random number generator by an external investigator not involved in the trial. Participants were blinded to the interventions. All eligible participants were not given any incentive to participate in the study.

2.2. Intervention

2.2.1. The coach-supported blended interventions

This study is based on the (Student Compass (S.L.) or Opiskelijan Kompassi (O.K.) in Finnish, which is a web-based mental wellbeing promotion intervention developed to teach mental wellbeing skills to university students, using an Acceptance and Commitment Therapy (ACT) framework. The program is offered to all students as self-help and twice per year students can follow the program with tailored coach support. The (Student Compass*)* and its coach support is an integral part of Student Life's three-stepped care model of student wellbeing support and its permanent wellbeing counseling services offered to all degree students at the university of Jyväskylä.

Based on our previous RCT-study ((Räsänen et al., 2016)), 49% of participants reported that two face-to-face sessions were not adequate for them. In view of that, we experimented in this study with a coaching setting that consisted of the guided five-module program, three face-to-face meetings and three online asynchronous sessions (instead of five that were in the previous study). The content and tasks were identical across conditions. Group A (iACTa) received free-form, fully personalized, individually tailored written feedback and Group B (iACTb) received semi-structured written feedback based on scripts prepared in advance by two experienced psychologists. See Table 1 for a comprehensive description of the commonalities and differences between the interventions, including face-to-face and online sessions, examples of the online program content and the coaches' role in the interventions.

2.2.2. The online program

The (Student Compass), is a web-based mental wellbeing promotion intervention developed to teach mental wellbeing skills to university students, using an Acceptance and Commitment Therapy (ACT) framework. The program consists of three themes/paths addressing issues of stress, anxiety, and depression respectively. Each path consists of educational material along with the ACT core processes that underlie psychological flexibility which have been combined into five modules: 1) clarifying values 2) taking committed action; (3) present moment awareness; (4) cognitive defusion; and (5) acceptance and self-*as*-context. The modules are divided into sections: 1) module's aims, 2) explore and learn, 3) practice and reflect. The paths are mostly text-based, containing educational videos, exercises in text, audio or video format, case vignettes, and wellbeing tasks presented by essay-type questions. The program contains additional exercises that have been categorized into themes (70 experiential exercises and metaphors). All

Table 1
Intervention structure and content: Modules, themes, exercise examples, and coach's role.

WEEK 1. Introductory face-to-face session
- Baseline measurements.
- Conduct a semi-structured face-to-face interview based on FACT to map participant's current situation and a short psychosocial assessment and functional analysis. Introduction to the online program.
- Coach's role: To interview the participant and perform a functional analytic clinical case formulation (FACCM). Session: 60 min.

WEEK 2. Online session: Clarifying values
- Brief orientation to the web intervention.
- Values. Difference between values and goals. Commitment.
- Examples of exercises and activities: Video on values; the values of a good life (worksheet); and two kids in a car (metaphor).
- Participant's main written homework exercise: Clarifying and reflecting on personal values.

WEEK 3. Online session: Taking values-based action
- Values-based action and concrete steps towards it.
- Examples of exercises and activities: Video on values and goals; passengers on a bus (metaphor); and examining obstacles to change (exercise).
- Participant's main written homework exercise: Defining goals and committing to take values-based action.

Differences between iACTa and iACTb interventions:
- **Group A:** Coach's role: Provide free-form personalized written feedback to the student on their values; encourage them on their progress and behavioral activation; provide further recommendations and personalized exercises; and guide them on the following week's theme **(1).**

Suggested time spent on online responding: 40 min max.
- **Group B:** Coach's role: Feedback based on a semi- structured script that included encouragement on their progress; comments on values; guidance on the following week's theme; Fill in: participant's main values, option to suggest one exercise[a] **(2).**

Suggested time spent on online responding: 15 min max.

WEEK 4. Face-to-face session
- Face-to-face semi-structured session.
- Coach's role: Provide brief oral feedback on homework; present the FACCM diagram and set it with student behavioral goals; focus on possible internal obstacles to taking concrete action; introduce mindfulness and connect to values-based action.
- Examples of exercises and activities: FACCM diagram. Session: 45 min.

WEEK 5. Online session: Being present
- Contact with the present moment. Learn how to be mindful in the here and now.
- Examples of exercises and activities: Video on being present; mindful breathing, eating, and sitting.
- Participant's main written homework: Practice present moment awareness in daily activities and report experiences to coach. Act according to personal values.

WEEK 6. Online session: Watching one's thinking
- Cognitive defusion. Taking an observer's perspective towards one's own thoughts and feelings.
- Examples of exercises and activities: Video on noticing and naming thoughts; observer (exercise).
- Participant's main written homework: Continue acting based on personal values and practice, taking perspective from own thoughts through brief experiential exercises, and report experiences to coach.

Differences between iACTa and iACTb interventions:
- **Group A:** Coach's role: In addition to (1), provide feedback on homework; practice present moment awareness in daily activities. Suggested time spent on online responding: 40 min max.
- **Group B:** Coach's role: In addition to (2), provide semi- structured feedback that included ready comments on practicing present moment awareness in daily activities. Fill in: brief feedback on participant's main homework (2–3 lines);

Suggested time spent on online responding: 15 min max.

WEEK 7. Online session: Awareness and Acceptance
- Developing awareness of the self in context. Acceptance of thoughts, feelings, and memories as they are, changing what can be changed through action.
- Example of exercises and activities: Video on acceptance and self-awareness; a stone on the beach (exercise).
- Participant's main written homework: What I would need to accept? Acting according to personal values. Continuing with mindfulness activities.

Differences between iACTa and iACTb interventions:
- **Group A:** Coach's role: In addition to (1), provide feedback. Practice taking perspective from own thoughts through brief experiential exercises. Focus on the student's thinking patterns and their usability/functionality. Suggested time spent online responding: 40 min max.

(*continued on next page*)

Table 1 (*continued*)

- **Group B:** Coach's role: In addition to (2), provide semi- structured feedback that included ready comments on a) practicing taking perspective from own thoughts through brief experiential exercises, b) the concepts of acceptance and awareness. Fill in: Brief feedback on participants main homework (2–3 lines).

Suggested time online responding: 15 min max.

WEEK 8. Wrapping up face-to-face session

- Final face-to-face session. Wrap up the intervention. Relapse prevention. Post-measurements. Session: 90 min.
- Example of exercises and activities: Three things to continue practicing, review of FACCM and values.
- Coach's role: Based on a semi-structured interview, evaluate the student's situation and close-up the intervention. Provide further referring, if needed.

Coach's suggested total time spent on intervention.
Group A: 285 min (4 h 45 min), Group B: 210 min (3 h 30 min).
[a] See appendix for example of a templated feedback.

modules were accessible upon registration for the program; however, the participants were advised to follow the modules in the order presented. See Table 1 for detailed description.

2.2.3. The coaches

A total of 50 master's level psychology students (females, n = 44, 88%; M^{age} = 26 years) provided coaching and support. About half of the coaches (n = 27, 54%) had some brief previous practice in providing mental health support. The coaches attended a master's level psychology course designed to fit the needs of this intervention and received from two experienced psychologists 16 h' training in ACT, RFT, and behavioral analysis and their practical application online and face-to-face. The practical application covered client assessment and measurement, functional analytic case conceptualization, the fundamentals of online interventions, online asynchronous written feedback, and client reporting as well as technical aspects of the present intervention. Coaches also received weekly small group supervision (5 weeks × 2 h, total 10 h) from an experienced psychologist. In addition, they received an ACT manual, the online program, and other related material for self-study. Finally, the coaches had on-demand peer-support group sessions throughout the intervention to share their coaching experiences, exchange ideas, and support each other in the coaching process.

2.2.4. Coaches' support

The face-to-face coaching sessions were one at the beginning of the program, one in the middle, and one at the end. After an initial semi-structured evaluation interview with their randomly assigned coach, the participants were given pseudonymized usernames to access the online program. In the program, on an encrypted, password-secured online platform, participants worked on one module at a time and completed weekly in their personal folder well-being exercises and journal entries reflecting their progress and experiences. The participants had three sessions of asynchronous written communication with their respective coach, who provided upon mutually agreed time feedback within 48 h of the participant's response. Brief oral feedback on assignments was given in the second and final face-to-face meeting. Email reminders were sent, if participants did not respond to tasks on time.

In group A, coaches were instructed to provide fully personalized, free-form feedback. They were also instructed to focus on 2–3 main points per feedback entry and customize the program's content to reflect each participant's needs through step-by-step guidance. In group B, coaches were given structured scripts with predetermined prompts and were instructed to complete the blanks based on the responses given by the participants (see Appendix 1 for an example of semi-structured feedback). The scripts were generic enough to fit many possible responses and customization options were kept concise. In both groups, coaches were trained to provide feedback in accordance with ACT principles, promote behavioral activation, and encourage participants to continue and hold them accountable for their progress in an empathetic manner. Coaches were instructed a) to keep the length of feedback to a maximum of about one A4 page/per response, b) allot 40 min max. time for free-form vs 15 min max for semi-structured feedback (see also Table 1).

2.3. Measurements

The participants completed a battery of standardized, self-reported measures at baseline and at the end of the intervention (8 weeks). The primary outcome measures were well-being, perceived stress, and depression. The remaining process measures of mindfulness and psychological flexibility were considered secondary.

A reliability analysis was conducted at pre-measurement to evaluate the internal consistency of the measures employed in this study, all of which exceeded the acceptable co-efficient alpha value of 0.70 (Nunnally & Bernstein, 1994), except for the non-judging scale of the Five Facet Mindfulness Questionnaire, which had coefficient a = .65.

At pre-measurement, demographic information was collected, including age, gender, education, relationship and employment status, and motivation to change.

2.3.1. Primary outcome measures

Mental Health Continuum Short Form (MHC-SF; Keyes, Shmotkin, & Ryff, 2002) uses 14 items to measure **subjective psychological, emotional, and social well-being** on a six-point Likert scale. Higher scores indicate higher levels of well-being (min 0, max 70). The internal consistency of the MHC-SF in previous studies ranged from 0.80 to 0.89 (Keyes, 2005a; Westerhof & Keyes, 2010). In the current study, Cronbach's α was 0.90 (and 0.83, 0.80, and 0.81 for the emotional, social, and psychological well-being subscales, respectively).

Symptoms of stress were measured using the Perceived Stress Scale-10 (PSS-10; Cohen, Kamarck, & Mermelstein, 1983; Cohen & Williamson, 1988), a 10-item scale in which respondents rate on a five-point Likert scale (0 = never, 4 = very often) how stressful (unpredictable, uncontrollable, and overloaded) they perceive their lives to have been within the past month. Higher scores correspond to higher levels of perceived stress (min 0, max 40). The internal consistency of the PSS in other studies ranged from 0.74 to 0.91 (Lee, 2012), and in the current study, it was 0.82.

The Patient Health Questionnaire (PHQ-9; Kroenke, Spitzer, & Williams, 2001) is a brief, multipurpose instrument for screening, monitoring, and measuring symptoms of **depression**. The questionnaire has nine items and rates the frequency of symptoms from 0 (not at all) to 3 (nearly every day), which factor into the scoring severity index (min 0, max 27). PHQ-9 cut-off scores of 5, 10, 15, and 20 represent mild, moderate, moderately severe, and severe depression. The internal consistency of the PHQ-9 in the current study was 0.82.

2.3.2. Process measures

The Avoidance and Fusion Questionnaire (AFQ; Greco, Lambert, & Baer, 2008) consists of 17 items that assess avoidance and fusion on a Likert scale from 0 (not at all true) to 4 (very true). High scores indicate **psychological inflexibility** (min 0, max 68). The AFQ-Y was initially developed for younger populations, but it is considered appropriate for individuals of any age, including university students (Schmalz & Murrell, 2010). The internal consistency of the AFQ in other studies ranged from 0.74 to 0.91, and in the current study, it was 0.82.

The Five Facet Mindfulness Questionnaire (FFMQ; Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006) measures **mindfulness** and consists of 39 statements rated on a scale ranging from 1 to 5 five (1 = rarely or never true, 5 = very often or always true). FFMQ has five subscales: (1) observing (noticing stimuli such as sensations, emotions, thoughts); (2) describing (labeling those stimuli with words); (3) non-judging of inner experience (refraining from evaluating one's thoughts, emotions to come and go without attachment or impulsive reactivity), and (5) acting with awareness (noticing one's actions

without behaving absent-mindedly or automatically). Higher scores (score ranging from 39 to 195) indicate greater mindfulness skills. The questionnaire has adequate internal consistency, with Cronbach's alpha ranging from 0.75 (non-reactivity) to 0.91 (describing) (Baer et al., 2008); in this study, it ranged from 0.65 to 0.90.

2.3.3. Intervention evaluation questionnaire and adherence

The participants evaluated the intervention by responding straight after completing the intervention to an extended questionnaire that consisted of the following themes: overall satisfaction, the program's usefulness, coach support satisfaction, and recommending the program to others. Participants rated on 5-point Likert scales their satisfaction with the program (1 = extremely satisfied, 5 = extremely dissatisfied) and the program's usefulness (1 = not useful at all, 5 = extremely useful).

Adherence was defined as the proportion of completed modules in the program. We measured the time spent on the program (self-reported time used on the website per week) by both the participants and the coaches. In addition, to ensure adherence to the protocol and examine the progress of the participants, coaches completed a detailed log every week of the guidance they provided to their assigned participants. Written feedback and logs were reviewed by the intervention's supervisors throughout the course of the study. Adherence to the online intervention was measured by calculating the percentage of completed modules and the self-reported weekly use of the program.

2.4. Statistical analysis

Statistical analyses were conducted using Mplus (version 8; Muthén & Muthén, 2017) and SPSS (version 27) and were performed on all randomized participants. The baseline differences between the iACTa and the iACTb groups were examined using t-tests and chi-square. To investigate changes over time, hierarchical linear modeling (HLM) with full-information maximum likelihood estimation (MLR) in Mplus was employed. HLM accounts for missing values at random (MAR) and includes all available data. The group × time interaction was examined in Mplus to shed light on the impact of the interventions from pre-to post-measurement. Participants' experiences of the intervention were examined using frequencies.

In addition, effect sizes (ES) were reported using corrected Cohen's d and calculated as follows. The mean difference in the pre-measurement was subtracted from that in the post-measurement, and the difference was divided by the pooled standard deviation of pre-measurement. The within-group ES was calculated by the mean change from pre-measurement to post-measurement, divided by the combined (pooled) standard deviation (SD) of pre- and post-measurements (Morris & DeShon, 2002). The effect sizes were considered small when d = 0.2, medium when d = 0.5, and large when d ≥ 0.8 (Sullivan & Feinn, 2012).

We also compared participants' satisfaction with the written feedback to the changes in treatment outcomes by calculating the correlations between them. Participants' satisfaction was examined through a likert-scale questionnaire (1–5, extremely disagree-extremely agree). The change was calculated by subtracting the pre-measurements from post-measurements.

The sample size was determined based on our earlier RCT study (Räsänen et al., 2016), in which over 65 participants were divided into two groups (iACT vs waitlist-control) and the effect sizes between groups were small to moderate. In this study, we did not expect big effect sizes between groups because we compared two active groups, but we expected that by doubling the size of participants (n = 123) the outcomes would be more reliable, not based on chance and easier to generalize to the population.

3. Results

3.1. Baseline data

The eligible participants had a mean age of 25 years in both groups and were mostly female (n = 103, 83.7%). The two groups were very similar, and t-tests for continuous variables and chi-square for categorical variables revealed no statistically significant differences between the groups at baseline on participant demographic variables and all measurements. Table 2 gives an overview of the participants' characteristics.

3.2. Intervention effects: iACTa vs. iACTb

Table 3 provides a detailed description of means, standard deviations, and effect sizes between and within groups and shows whether the groups changed in a statistically different manner from pre-to post-measurement. Although both groups had significant within-group improvements in well-being, perceived stress, depression symptoms, mindfulness skills, and psychological flexibility, there were no statistical differences in interaction between the groups, except for well-being (MHC-SF) favoring the semi-structured feedback group (iACTb).

In changing from pre-to post-measurements, there were small effect sizes within the iACTa group for well-being (d = .44), medium effect sizes in perceived stress, depression symptoms, and psychological

Table 2
Participants' characteristics.

Baseline characteristics	All (n = 123)	iACTa (n = 61)	iACTb (n = 62)	*t*-test (df) /χ^2 (df)
Age M (SD)	25 (4.52)	25.03 (4.79)	24.97 (4.28)	t (121) = .079, p = .937
Gender (%)				
Female	103 (83.7)	52 (85.1)	51 (82.3)	χ^2 (1) = .202, p = .808
Male	20 (16.3)	9 (14.8)	11 (17.7)	
Relationship status (%)				χ2 (2) = 1.42, p = .513
Single	53 (43.1)	29 (47.5)	24 (38.7)	
In a relationship	55 (44.7)	24 (39.3)	31 (50)	
Married/registered	15 (12.2)	8 (13.1)	7 (11.3)	
Faculty (%)				χ^2 (4) = 5.00, p = .428
Humanities	32 (26)	12 (19.7)	20 (32.3)	
Education	27 (22)	12 (19.7)	15 (24.2)	
Sport & Health Sciences	7 (5.7)	4 (6.6)	3 (4.8)	
Mathematics & Science	24 (19.5)	13 (21.3)	11 (17.7)	
Social Sciences	28 (22.8)	16 (26.2)	12 (19.4)	
Business & Economics	5 (4.1)	4 (6.6)	1 (1.6)	
Employment (%)				
Employed	45 (36.6)	25 (41)	20 (32.3)	χ^2 (1) = .100, p = .353
Not employed	78 (63.4)	36 (59)	42 (67.7)	
Previous psychological counseling (%) [a]	83 (67.5)	39 (63.9)	44 (71)	χ^2 (1) = .693, p = .445
Self-injury thoughts/ plans (%)	7 (5.7)	4 (6.6)	3 (4.8)	χ^2 (1) = .169, p = .717
Medication (%) [b]	11 (8.9)	3 (4.9)	8 (12.9)	χ^2 (1) = 2.40, p = .205
Motivation to change M (SD) [c]	8.56/10 (1.36)	8.61 (1.48)	8.52 (1.25)	t (121) = .365, p = .716

[a] Have previously received counseling, including visit to a psychologist, psychiatrist, and/or nurse.
[b] Use of medication for mental health problems.
[c] Motivation to change, 1–10 scale (1 = not ready to change at all, 10 = highly motivated to change). p-values for t-tests are two-sided, for χ^2 reported are exact (two-sided).

Table 3
Mean scores, standard deviations, and effect sizes of all measures at pre- and post-measurement between free-form (iACTa) and semi-structured (iACTb) groups.

Scale	Group	Pre M *(SD)*	Post M *(SD)*	Pre–post change Wald test ($df = 1$) p value	Within-group pre–post change Wald test* ($df = 1$) p value	Within group pre–post (Cohen's d_{corr})	Between pre–post (Cohen's d_{corr})
MHC-SF	iACTA	46.11 *(11.57)*	51.22 *(11.68)*	4.327 p = 0.037	22.779 p < 0.001	.44	.26
	iACTB	42.95 *(12.21)*	51.19 *(10.99)*		62.963 p < 0.001	.71	
PSS	iACTA	19.55 *(5.30)*	15.82 *(5.872)*	1.350 p = 0.245	21.160 p < 0.001	.66	.20
	iACTB	19.14 *(5.98)*	14.26 *(6.26)*		54.361 p < 0.001	.79	
PHQ-9	iACTA	8.19 *(4.37)*	5.24 *(4.55)*	0.538 p = 0.463	19.838 p < 0.001	.66	.13
	iACTB	7.35 *(5.19)*	3.77 *(3.12)*		26.110 p < 0.001	.83	
AFQ	iACTA	25.96 *(8.30)*	18.86 *(10.19)*	0.012 p = 0.912	27.177 p < 0.001	.76	.01
	iACTB	26.90 *(10.37)*	19.63 *(10.64)*		30.176 p < 0.001	.69	
FFMQ	iACTA	122.86 *(13.75)*	135.61 *(17.96)*	0.000 p = 0.986	32.099 p < 0.001	.80	.00
	iACTB	123.87 *(17.46)*	136.64 *(16.95)*		42.762 p < 0.001	.74	

flexibility (d = .66–0.76), and large effect size in mindfulness skills (d = .80). In contrast, in the semi-structured feedback group (iACTb), medium effect sizes were observed in well-being, perceived stress, psychological flexibility, and mindfulness skills (d = .69–.79), and large effect size was observed in depression symptoms (d = .83). Small between-group effect sizes were only observed for well-being and perceived stress (d = .20–.26). Other between group effect sizes were very small or non-existent (d = .00–.13).

3.3. Adherence and attrition

Given that 105/123 randomized participants completed the interventions (iACTa: n = 51, 83.6%; iACTb: n = 54, 87.1%), the retention rate was 85.4%. Ten participants (16.4%) in the free-form feedback group (iACTa) and eight (12.9%) in the iACTb group did not complete the post-assessment but were included in the calculations; thus, the intent-to-treat principle was applied (see also statistical analyses). Out of these, 13 participants (five in iACTa and seven in iACTb) completed only pre-measurements but did not participate in the interventions. Independent t-tests and chi-square tests revealed no differences between dropouts and intervention completers on any of the sociodemographic characteristics or motivation to change (Completers: m = 8.49, sd = 1.37; Drop-outs: m = 9.00, sd = 1.28). When drop-outs were contacted afterwards, 72% did not respond, 18% reported reasons for dropping out a busy schedule and 12% reported feeling better.

Regarding treatment adherence, overall (both conditions), 92 participants (75%) completed all eight parts of the interventions and 11 (9%) completed ≥50% of the intervention. More specifically, 43 participants (70.5%) in the free-form feedback group (iACTa) and 49 participants (79%) in the semi-structured group (iACTb) completed all modules. According to the self-reported weekly use of the online program, 39% (iACTa) and 31% (iACTb) of participants used it for up to 60 min per week. In addition, 28% (iACTa) and 43.5% (iACTb) used it for 61–120 min per week.

The coaches (n = 50) provided a total of 277 written feedback responses and reported weekly the time they had taken to respond to their participants in their online method diaries. 215 method diary entries were recorded while 44 reports were missing. According to the self-reports, coaches in the iACTa group took on average 31.28 min (n = 106 responses, range 5–120 min) per written feedback response for each participant, while those in the iACTb group took on average 17.91 min (n = 109 responses, range 3–90 min) per participant. In addition, the free-form coach feedback (iACTa) was on average 300 words longer than in the semi-structured feedback (iACTb).

3.4. Treatment acceptability and satisfaction

The program was well received by the participants, who reported overall high satisfaction. By group, 84.4% (n = 43; iACTa) and 83% (n = 44; iACTb) of participants reported that they were extremely satisfied/satisfied with the intervention, and 96% (n = 50; iACTa) and 98% (n = 52; iACTb) of participants would recommend the program to others.

Participants in both groups reported on average that the written feedback they received from their coaches was useful (iACTa mean 3.23 vs. iACTB mean 2.87). The difference between the groups was not statistically significant (p = 0.085). More specifically, in the free-form personalized group (iACTa), 54% found the written feedback extremely useful, while 29% found it very useful. In the iACTb group, 32% reported that the written feedback was extremely useful and 36% that it was very useful. Of the iACTa and iACTb participants, 79% and 85.5%, respectively, reported that the amount of contact with the coach was suitable, while 15% and 14.5%, respectively, reported that the contact was too short.

Participants' satisfaction with the written feedback was correlated significantly in the iACTb group with changes in perceived stress r (51) = -.42, p = .002, depression symptoms r (51) = -.45, p = .001, psychological flexibility r (51) = .29, p = .032, and mindfulness skills r (51) = .54, p = .001. There were no significant correlations between written feedback satisfaction and outcome measurements in the iACTa group as well as in wellbeing in the iACTb group.

4. Discussion

4.1. Outcome measures

The current study compared two formats of online written asynchronous guidance by coaches within two otherwise identical blended ACT-based interventions targeting university students' well-being and reduction of psychological distress. The study aimed to investigate whether online written coach support in a permanent university well-being service could be partly automatized and/or shortened without compromising the quality and impact of the intervention. Both free-form, personalized and semi-structured written feedback groups had significant gains from participating in the interventions across all measures, including well-being, psychological flexibility, mindfulness skills, and reduction of stress and depression symptoms. The outcomes confirmed the results of our previous RCT-study in which participants had significant gains in well-being, mindfulness skills, self-esteem, quality of life, and reduction of stress and depression compared to a waitlist control group (Räsänen et al., 2016)). The outcomes are also in line with affirmative results from meta-analyses on the effectiveness of ACT-based interventions on psychological wellbeing, stress, depression, mindfulness, and psychological flexibility (Brown et al., 2016; Han & Kim, 2022; Klimczak et al., 2023; O'Connor et al., 2017; Spijkerman et al., 2016; Thompson et al., 2021) as well as on ACT-based DMHI's targeting university students (eg. Ferrari et al., 2022; Lattie et al., 2019) and of moderate length DMHIs interventions (Harrer et al., 2019). The results are also consistent with previous meta-analyses on DMHIs in

which support provided by paraprofessionals (Bernstein et al., 2022; Werntz et al., 2023) has been found effective on treatment outcomes. This in turn highlights that human support in DMHIs does not necessarily need to come from highly trained mental health professionals (Lappalainen et al., 2014; Räsänen et al., 2016; Werntz et al., 2023).

The group that received semi-structured feedback (iACTb) had significantly better gains in well-being than the free-form personalized feedback group (iACTa), while there were no differences in all other measures. These findings partially align with a previous 6-week cognitive-behavioral IBI study on depression (Zagorscak, Heinrich, Sommer, Wagner, & Knaevelsrud, 2018), in which fully automated standardized feedback was just as effective for treatment outcomes such as depression, anxiety, and well-being, compared to semi-standardized e-mail feedback from psychologists.

In the changes from pre-to post-measurements, the differences between the two active interventions were either small (ES: d = .20–0.26) or very small (d = .00–0.13). The within-ES in the free-form personalized feedback group (iACTa) varied from small to large (d = .44–0.80), while in the semi-structured feedback group varied from moderate to large (d = 0.69–0.83). Despite being a low-intensity intervention with inexperienced master's level psychology students as coaches, the outcomes were comparable to average and close to high-performance interventions in services working under the Improving Access to Psychological Therapies (IAPT) program in England. More specifically, Delgadillo et al. (2014) assessed pre- and post-treatment ESs to illustrate a benchmarking method that enables services to evaluate routine clinical outcomes in IAPT, reporting estimated high, average, and poor performance ESs for these services of 0.91, 0.73, and 0.46, respectively, for depression (using the PHQ-9). Compared with these ESs in the PHQ-9, in this study, the personalized feedback group (iACTa; d = .66) was close to the average performance, and the semi-structured feedback group (iACTb; d = .83) was between average and high performance.

4.2. Participants' satisfaction, engagement and adherence

Participants in both groups reported overall high satisfaction with the intervention and found the coach written feedback useful. This is in line with the previous study (*name removed*; $M = 7.83$, $SD = 1.47$; 10 = extremely satisfied). However, 79% in the iACTa and 85.5% in the iACTb reported that the amount of contact with the coach was suitable, outcomes which are in contrast with that previous study (51%). Perhaps the addition of one face-to-face session in this study contributed to increase in satisfaction. An additional surprising outcome was that participants in the semi-structured group (iACTb) who had greater changes in their stress, depression symptoms and mindfulness skills, reported also greater satisfaction with the written feedback they received. In contrast, no associations were found in the fully personalized feedback group and their satisfaction. Furthermore, participants in the semi-structured group spent more time on the program (43.5% used it for 61–120 min per week compared to 28% in the comparison group), appearing rather engaged and committed to the program. These outcomes are highly encouraging considering that guided online interventions often have low rates of utilization (Day, McGrath, & Wojtowicz, 2013; Eysenbach, 2005; Mohr et al., 2011; Spijkerman et al., 2016), which might compromise the implementation of such interventions on a larger scale.

In contrast to many internet-based interventions that experience a low level of adherence (Becker & Torous, 2019; Kelders, Kok, Ossebaard, & Van Gemert-Pijnen, 2012; Renfrew, Morton, Morton, & Przybylko, 2021) adherence in this blended intervention was high (83.6% in iACTa and 87.1% in iACTb). The high completion rate may be explained due to participants' satisfaction being rather high, an outcome that is in line to a similar ACT blended intervention (Lappalainen et al., 2014). There were no differences found in sociodemographic characteristics or motivation to change between dropouts and completers. Perhaps personal circumstances such as busy schedule, feeling better or dissatisfaction with the intervention's content may explain the dropout rates. The outcome is comparable to the 16% weighted aggregate dropout rate in ACT RCTs found in Ong et al.'s (2018) meta-analysis, which was not significantly different from that in other established therapies. Indeed, the higher percentage of intervention completers has in previous studies demonstrated better outcomes for IBI's for university students (Conley et al., 2015). Since in this study coaches were inexperienced psychology students, our findings contradict Ong, Lee, and Twohig (2018) meta-analysis, which reported that master's-level clinicians/therapists (weighted mean: 29.9%; CI: 17.6%, 43.8%) were associated with higher dropout rates than psychologists (weighted mean: 12.4%; 95% CI: 6.7%, 19.4%).

Overall, the initial hypotheses that free-form personalized feedback would yield better treatment outcomes and perhaps increase adherence and engagement in participants were not confirmed. In fact, the group which received semi-structured feedback spent more time in the program and their adherence rate was slightly higher comparing to the group that received fully personalized feedback. Perhaps carefully prepared scripts with predetermined prompts by professionals with long experience in ACT may have contributed to this outcome. The predetermined semi-structured feedback was carefully planned to utilize the ACT-principles and processes. One could argue that if fully personalized can be substituted by semi-structured feedback with comparably equal or slightly better outcomes in participants' satisfaction, adherence and engagement, the utilization of chatbots and artificially intelligent generated automatic responses could be a potential next step in DMHIs. This would further decrease the costs involved as well as ease their dissemination.

4.3. Limitations

The current study has several limitations that might affect the generalizability of the results and should be taken into consideration when drawing conclusions from its outcomes. The difference between groups on wellbeing needs to be interpreted with caution. If the p-values from the outcome results were corrected for multiple comparisons (Bonferroni correction) then statistical significance would diminish for the wellbeing measurement. Furthermore, most participants were female, highly educated, and familiar with writing tasks. Female participation is a very common characteristic in IBIs (Davies et al., 2014). The intervention was advertised across many channels with the aim of appealing to both male and female students, but it did not attract equal numbers, an issue that has often been observed in DMHIs (Bernstein et al., 2022; Crisp & Griffiths, 2014) and programs for university students (Regehr, Glancy, & Pitts, 2013). Most participants reported that they were highly motivated to change at baseline. Another important limitation was that the data were based only on self-reported measures and evaluations. The content management platform used in the online program supported anonymous login data, and the study participants' login and program usage data could not be combined and compared with self-reported data. There was a wide range in responding time among coaches (free-form: 5–120; semi-structured: 3–90 min) which raises concerns of the accuracy of the reported time in responding. Alternatively, the wide variation might reflect individual differences between the coaches in applying the ACT approach in responding to the students. Furthermore, the study employed inexperienced psychology students as coaches, which might have had an impact on the quality of the personalized, open-ended feedback. Perhaps, experienced counselors' personalized, open-ended feedback would yield different outcomes in similar comparisons with semi-structured feedback. Finally, this was an intervention on well-being with a preventative scope and included, amongst others, participants with stress and mild symptoms of depression. Perhaps, in severe psychiatric conditions, similar semi-structured responses might not have yielded such promising results. These points should be examined in future studies.

4.4. Counseling and coaches' training implications

The outcomes of this study have several implications for counseling and coaches' training and supervision. As observed in previous studies (Bernstein et al., 2022; Köninbauer et al., 2017) mo re coach time in the fully personalized feedback did not linearly lead to better outcomes. In contrast, the semi-structured written feedback features seemed to have offered coaches with a streamlined framework for offering feedback online and almost halved their response time compared with free-form feedback. Meanwhile, the participants reported that the coaches' written feedback was useful in both groups. The outcomes indicate that some automated features in blended IBIs could potentially increase the possibility of disseminating such interventions more evenly and to larger groups, while preserving their quality and acceptability. In addition, semi-structured feedback prepared by experts could be particularly useful in providing inexperienced coaches with a concrete framework to offer targeted and focused online support. In turn, this could improve the efficiency of coaches' training, reduce supervision time while promoting inexperienced coaches' self-agency.

4.5. Implications in real-world student wellbeing service applications

The use of DMHIs has the potential to significantly expand the reach of evidence-based treatments and alleviate the worldwide burden of mental health disorders in general (Werntz et al., 2023) and among university students (Ferrari et al., 2022). Th e actualization of these outcomes in real-world settings has been hindered, amongst others, by high user attrition rates, lack of engagement, high costs, difficulty of dissemination (Borghouts et al., 2021; Werntz et al., 2023). Unlike the majority of DMHI on university students which are standalone studies (Ferrari et al., 2022) this study was based on an established university wellbeing counseling service. The outcomes of this study, lead to the abandonment of fully personalized feedback. In contrast, the format delivery of semi-structured feedback along with three-face-to-face coach sessions, which was effective in this study, was immediately applied and disseminated in the teaching and training of future coaches with equally encouraging outcomes on participants: consistent positive outcomes in treatment measurements, high coaches' and students' satisfaction, high adherence and engagement rates.

4.6. Conclusions and future research

The results suggest that blended ACT-based interventions can be offered using semi-structured online support. Interventions with semi-structured feedback with minimal elements tailored to individual needs can be as effective in treatment outcomes as more elaborate, fully personalized online feedback, and save time and resources by optimizing the focus and time of coach support.

Overall, blended interventions with face-to-face coach sessions and semi-structured features could have numerous potential applications in counseling settings. Future research could examine the applicability of such blended interventions in different population settings, and possibly compare other forms of automated features. For example, experimental studies could examine the impact of different types of semi-structured coach feedback (e.g., task prompting, task reinforcement, and probing self-reflection). In addition, is still unknown if semi-structured feedback would perform just as well as tailored feedback for formats where the written feedback is much briefer (e.g., brief messaging, feedback that is just one or two sentences, etc.), so this could be explored in future research. To improve participant experience and engagement, further research could examine providing participants with the freedom to personalize or customize an intervention by choosing their preferred automated support and discretionary features (Renfrew et al., 2021). Finally, expanding on the outcomes of this study, the next logical step in future research would be to test the integration of new technologies (e. g., A.I. and chatbots) in the implementation of blended digital interventions.

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Compliance with ethical standards

Informed consent was obtained from all the participants included in the study. Ethical approval for conducting this study was received by the board of Central Finland Healthcare District's Ethics Committee under registration number (14U/2012).

Public trials registry

The study's data was collected between 2015 and 2016 and at that time was not mandatory to be pre-registered. The data is available upon reasonable request.

Declaration of competing interest

The authors declare that they have no conflicts of interest. Given his role as an Editorial Board Member, Dr. Lappalainen was not involved in the peer-review of this article and had no access to information regarding its peer-review.

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Appendix A. Coach's semi -structured written feedback example

First coach feedback response after values task

Parts to be filled by the coach marked in parentheses and text in italics

Intro: (*Encouraging words for going through the program and carrying out the exercises – clarifying one's values is, after all, a concrete action towards enhancing one's well-being.)*

Values: Now that you have been reflecting on your values in different areas of life and pondering what matters to you, it is time to take these values into action. You mentioned that *X (describe the participant's values*) are important to you. What concrete steps/actions, even the smallest ones, could you take in your daily life in the direction of these values? What is one action you could take now that would take you in the direction of this value (*name overarching goal or quality of action*)? Could (*describe an/some action/s, preferably what the participant has mentioned earlier*) be an/some example/s that would contribute to this value (*name overarching goal or quality of action*)?

I am wondering, have you already been doing something in the past week that has been contributing to living according to this/these important value/s to you?*(Past valued actions) If so, what is that?*

Valued actions: Remember that even the smallest actions could be part of a bigger whole. Imagine that every action you take towards your values is like adding a small brick to the wall of the house you are building, where your values are the foundation. What "small brick" would you be willing to add today that would contribute to something bigger in your life? Even the smallest brick will help build the house.

Our next week's theme is about choosing goals and concrete actions towards the things that matter to you personally. Take the time to choose one or two important values that are a priority in your life right now. What are the things that you could do that would be part *of/ contribute/be in the service of this X* value (*mention overarching goal, quality of action*)? *You can also frame it as, what are the things you could do that would be part of living a life with (name quality of action)?* You will have the opportunity this coming week to reflect and plan these actions more

concretely. Take the time to experiment and explore.

Optional exercise: (*Feel free to suggest one additional exercise based on your first interview, our supervision, and/or the functional analytic diagram that you have prepared for your participant.*)

Closing: (*Encouraging closing words*).

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