



# Developing a brief acceptance and commitment therapy model for industrial psychologists



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**Orientation:** Mental health distress is on the rise, which has significant implications for labour productivity. Industrial psychologists, who are equipped to offer work-based counselling, can play a vital role in alleviating this burden.

**Research purpose:** This study was an investigation of current literature on industrial psychologists as counsellors, with a focus on acceptance and commitment therapy (ACT) as a framework to deliver brief work-based counselling. The aim was to offer a practical model of counselling, derived from the literature, for industrial psychologists to perform work-based counselling.

**Motivation for the study:** There is a paucity of literature pertaining to evidence-based guidelines that industrial psychologists can follow to provide counselling. This study attempts to expand industrial psychologists' counselling skill set by proposing an ACT intervention that can be applied as a brief counselling process in the workplace.

**Research approach/design and method:** A systematic literature review of three separate literature streams yielded 1297 publications. After further analysis, 25 publications that met the criteria for relevance and quality were considered to create a model for workplace counselling.

**Main findings:** Attention to the role of industrial psychologists as counsellors dwindled after the 1960s but has recently been given renewed attention by South African scholars. The literature review of experimental ACT designs revealed evidence-based guidelines that were combined to create the ACT for Work Well-being Model.

**Practical/managerial implications:** The ACT for Work Well-being Model is a brief counselling protocol to offer systematic steps that industrial psychologists can implement during brief work-based counselling to address anxiety and depressive symptoms.

**Contribution/value-add:** The proposed model is designed to stimulate further empirical validation and ensure evidence-based practice.

**Keywords:** work-based counselling; acceptance and commitment therapy; mental health; industrial psychology; brief therapy.

## Introduction

According to the latest global data, mental health and substance abuse account for one-fifth of years of disability, which is a significant increase from previous decades (World Health Organization [WHO], 2020). Whilst the latest data from the WHO (2017) suggests that 4.6% of the South African population might struggle with depression and 3.4% with anxiety, the respective statistics might be three to four times higher because of the COVID-19 pandemic (Cénat et al., 2021). South Africa has made progress in establishing mental health policies and supportive legislation, but Docrat, Besada, Cleary, Daviaud and Lund (2019) reported that of the 84% of South Africans without medical aid, around 92% do not receive any care for mental health concerns. A study conducted by Mall et al. (2015) revealed that anxiety and depression resulted in the greatest number of out-of-role days (28.2 and 27.2 days per year, respectively) when compared with substance abuse, headaches, arthritis, pain, cardiovascular problems, respiratory illness, diabetes and digestive problems. This significant loss of labour productivity because of depression and anxiety demands focussed attention from organisations.

Van Vuuren (2010) emphasised the importance of industrial psychology as a profession to employ a humanistic orientation, alongside commercial goals to contribute to greater societal good. In the midst of debates on industrial psychologists' role as counsellors, several scholars have argued the importance of industrial psychologists acting in a counselling capacity within the South African

context (Barkhuizen, Jorgensen, & Brink, 2014; Barnard & Fourie, 2007; Du Plessis & Thomas, 2021; Strümpfer, 2007). However, South African industrial psychologists reported insufficient preparedness to offer such counselling (Barkhuizen, Jorgensen & Brink, 2015; Du Plessis & Thomas, 2021).

The Health Professions Council of South Africa (HPCSA, 2019a) specified that the minimum standards for the training of industrial psychologists should include skills in individual or group counselling to address trauma, crises or outcomes related to job stress. The HPCSA (2019a) further stipulated that industrial psychologists should provide short-term counselling, making brief therapeutic approaches most suitable. A brief therapy approach is also a cautious strategy to ensure that industrial psychologists are not involved when an employee's mental health condition exceeds their professional capacity. Guidelines on a counselling approach that fits the industrial psychologist's professional capacity and intentions could offer a helpful way to address mental health concerns in the workplace.

## Purpose of the study

The purpose of this study is to conduct a systematic literature review, aimed at formulating guidelines that could empower industrial psychologists to provide work-based counselling interventions. As a result of the prevalence of depression and anxiety in South Africa, these two symptom clusters were chosen to demarcate the scope of the study.

## Current theoretical perspective

### Work-based counselling

Aside from the increase in mental health diagnoses observed worldwide, workplaces bring a unique set of risk factors that could detrimentally affect employees' mental health (Harvey et al., 2017). According to Barkhuizen et al. (2014), counselling can include facilitation to guide people through a problem by increasing self-insight and empowerment and advancing optimal functioning. Counselling is a minimum skill required by industrial psychologists and relevant to other functions such as career guidance, psychometric feedback, performance management, retrenchment and occupational safety (HPCSA, 2019b). As mental health conditions are associated with a loss of productivity (Stepanek, Jahanshahi, & Millard, 2019), it is important that industrial psychologists are equipped to intervene. A literature review demonstrated the potential of work-based interventions for mental health conditions, to improve absence duration, economic outcomes, quality of life and work functioning (Pomaki, Franche, Murray, Khushrushahi, & Lampinen, 2012). Counselling is an effective intervention to address the mental health challenges of employees (Collins et al., 2012; McLeod, 2010).

### The viability for acceptance and commitment therapy as an approach to work-based counselling

Although there are many different counselling approaches, Minjoo, Mpofu, Brock, Millington and Athanasou (2014) found evidence for cognitive behavioural therapy (CBT) in

the workplace, which holds promise as an intervention for industrial psychologists to address mental illness. ACT is recognised as a third-wave CBT therapy that is aimed at addressing mental health issues through enhancing psychological flexibility (Hayes, Strosahl, Luoma, Varra, & Wilson, 2004). Psychological flexibility is the ability to make contact with the present moment, without judging private experiences (e.g. cognitions and emotions) and a willingness to change action plans that do not serve meaningful life goals (Hayes, Strosahl, & Wilson, 2012). Meta-analytical evidence supports the efficacy of ACT in addressing mental health concerns such as anxiety and depression (Gloster, Walder, Levin, Twohig, & Karekla, 2020). There is also growing literature on the use of ACT as a brief intervention (Strosahl, Robinson, & Gustavsson, 2012), which is considered more appropriate for the industrial psychologist's involvement in work-based counselling (Du Plessis & Thomas, 2021; Jorgensen-Graupner & Van Zyl, 2019).

In ACT, psychological flexibility is facilitated through six processes that will be discussed according to three response styles and the definitions provided by Hayes et al. (2012).

**Open response style:** *Acceptance* and *defusion* are critical elements that help facilitate a non-judgemental and more holistic understanding of direct experience. *Acceptance* is a process of enhancing willingness to attend to difficult inner experiences (including cognitions, emotions, memories and physical sensations). *Defusion* makes it possible to untangle from unhelpful inner experiences to the extent that it does not dictate behaviour.

**Centred response style:** A centred response style aids a mindful approach to everyday experience and includes two processes: *Attention to the present moment* involves a flexible shift in attention that is non-judging and allows greater awareness of private experiences. *Self-as-context* is about broadening perspectives regarding definitions of the self in an effort to combat limiting and self-defeating conceptualisations.

**Engaged response style:** *Values* and *committed action* are crucial for living a meaningful life. *Values* that are freely chosen and give purpose in life are explored whilst *committed action* involves a continuing set of behaviours, aimed at living according to values.

ACT is a structured approach to therapy and incorporates psychological skills that industrial psychologists might be more familiar with, such as goal-setting, reinforcing reasonable thinking and behavioural modification.

## Problem statement and research objectives

Although industrial psychologists are likely to encounter a need for work-based counselling, many practitioners still

report low self-efficacy in providing brief therapy (Du Plessis & Thomas, 2021; Jorgensen-Graupner & Van Zyl, 2019). There is also a paucity of literature offering clear guidelines for industrial psychologists to perform work-based counselling. A systematic literature review was conducted with the following two objectives:

1. To investigate existing guidelines on the role of industrial psychologists as work-based counsellors.
2. To establish evidence-based guideline from brief ACT that industrial psychologists can use to provide counselling for anxiety and depression in the workplace.

## Value-add of the study

The systematic literature review provided an overview of available studies regarding industrial psychologists' role as counsellors, together with an integrated summary of experimental studies conducted to validate ACT as a brief therapeutic framework within and outside the workplace. Evidence-based protocols from the ACT literature review were combined to develop the ACT for Work Well-being Model, which is a practical model that can be implemented by industrial psychologists and a training model that can be used to teach work-based counselling knowledge and skills to emerging psychologists.

## Research design

### Research approach

A systematic literature review offers a way to ascertain the current state of studies in addressing a research objective. Systematic literature reviews aim to synthesise one or more sources, in order to provide an overall impression of the evidence in relation to a particular research question and to clarify what is known and not known within a field (Nightingale, 2009; Siddaway, Wood, & Hedges, 2018). The guidelines of Siddaway et al. (2018) and Laher and Hassem (2020) guided this study process and are discussed in the following sections.

The systematic literature review targeted three literature streams. Stream 1 focussed on literature on existing counselling practices of industrial psychologists with the aim to investigate the support for and current scope of practical guidelines regarding counselling in the workplace for industrial psychologists. Provided the dearth of literature that was previously reported (Jorgensen, 2016; Jorgensen-Graupner & Van Zyl, 2019), this study also explored ACT as a viable therapeutic framework to offer guidelines on conducting work-based counselling. Therefore, an investigation of evidence-based guidelines that could be used to inform a brief work-based ACT model for the workplace followed in Stream 2. Stream 3 continued to include evidence-based studies on ACT as a brief therapy outside of the workplace in order to consider additional guidelines for developing such a protocol.

## Targeted body of literature

Two electronic databases were identified to conduct systematic literature searches, namely PsycInfo and Sabinet. PsycInfo provides access to social science and behavioural research globally, whereas Sabinet focusses on African electronic journals and allows access to African studies that are not always available to the global North (Laher & Hassem, 2020). The search included the following keywords with Boolean operator 'AND':

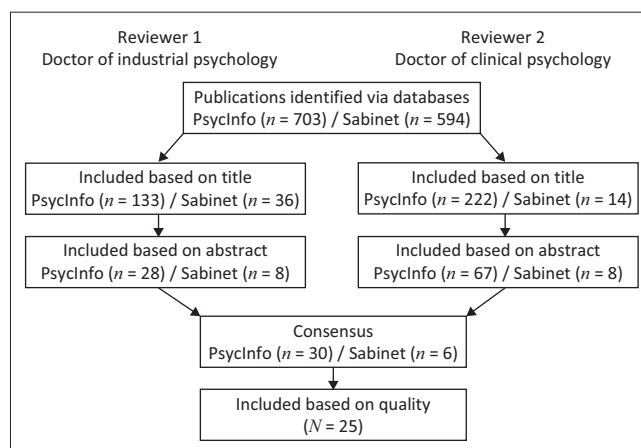
1. 'Industrial and organisational psychology' AND 'Counselling'
2. 'Acceptance and commitment therapy (ACT)' AND 'Workplace'
3. 'Acceptance and commitment therapy' AND 'Brief'

Whilst 'industrial and organisational psychology' is the most appropriate term to use in PsycInfo, 'industrial psychology' was used in the Sabinet search, in accordance with South African terminology. Work-based counselling rose to eminence in the 1940s (Highhouse, 1999) and the search for Stream 1 considered publications from 1940 to 2020. The ACT literature emerged in the 1980s, and the literature review included only literature published from 1980 to 2020.

## Gathering the data

As displayed in Figure 1, the initial search yielded 1297 publications (703 from PsycInfo and 594 from Sabinet). Screening followed to distinguish articles relevant to answering the research question and that were of an acceptable quality. Included articles had to be written in English or Afrikaans, and samples of studies were restricted to adults of the age of majority in South Africa (18 years or older). Peer-reviewed publications are considered more rigorous; therefore, grey literature (publications not subject to the blind peer-review process) was excluded (Hassem & Laher, 2019). Each stream of literature had further criteria for inclusion and exclusion, namely:

1. Publications had to explicitly mention the industrial and/or organisational psychologist as counsellor. Literature



Source: Adapted with permission from Hassem, T., & Laher, S. (2019). A systematic review of online depression screening tools for use in the South African context. *South African Journal of Psychiatry*, 25, 1–8. <https://doi.org/10.4102/sajpsychoiatry.v25i0.1373>

FIGURE 1: Flow diagram of articles that were included and excluded.

- Stream 1 did not include literature that focused on the role of clinical and counselling psychologists in the workplace.
2. Publications that did not explicitly mention ACT as applied in the workplace were excluded in Stream 2. The search was restricted to randomised control trials aimed at addressing anxiety or depressive symptoms.
  3. For Stream 3, the literature search included publications since 1980 with an explicit mention of ACT in a brief application. As with Stream 2, the search contained only randomised control trails aimed at addressing anxiety or depressive symptoms.

The authors (an industrial psychologist and a clinical psychologist with doctoral degrees in their respective fields) conducted independent screening processes to determine the eligibility of the publications for inclusion. The screening process proposed by Hassem and Laher (2019) was utilised, namely researchers should first screen titles, then abstracts and then full texts to ascertain the relevance of each article, before establishing consensus between the two reviewers on publications to include in the review. Inspection of the quality of the publications was the final step in the screening process. Articles related to the role of the industrial psychologist as counsellor was limited in scope and, therefore, all articles were included. The rating system proposed by the Critical Appraisal Skills Programme (2020, p. 1) provides 11 key considerations to determine the validity and applicability of randomised control trails in Streams 2 and 3, of which 10 were considered relevant and used as guidelines. The guidelines are listed as follows:

1. Did the study address a clearly focussed research question?
2. Was the assignment of participants to interventions randomised?
3. Were all participants who entered the study accounted for at its conclusion?
4. Were the study groups similar at the start of the randomised control trail?
5. Apart from the experimental intervention, did each study group receive the same level of care (i.e. were they treated equally)?
6. Were the effects of the intervention reported comprehensively?
7. Was the precision of the estimate of the intervention or treatment effect reported?
8. Do the benefits of the intervention outweigh the harms and costs?
9. Can the results be applied to your local population in your context?
10. Would the experimental intervention provide greater value to the people in your care than any of the existing interventions?

As suggested by Question 1, only randomised controlled trials were included to determine whether a protocol could be constructed from a causally valid evidence base (Lilienfeld, McKay, & Hollon, 2018). Although none of the studies from Streams 2 and 3 were conducted in South Africa, per Question 9, ACT is regarded as a unified and transdiagnostic

framework, which is applicable to many contexts (Hayes et al., 2012). One ACT randomised control trial, conducted in South Africa, showed significant effect sizes for improvement in quality of life and seizure frequency in people who suffer from epilepsy (Lundgren, Dahl, Melin, & Kies, 2006). Question 9 also concerns the relevance of the studies to the practices of South African industrial psychologists. The literature from Stream 3 was not specific to industrial psychologists (i.e. applicable to the work context), but there was sufficient convergence with the protocols found in Stream 2 to suggest applicability for industrial psychologists.

The elimination process yielded a total of 25 publications for inclusion as illustrated in Figure 1.

### Analysis of the data

In a systematic review, content analyses are usually implemented in a quantitative manner to code specific categories, which are then reported using descriptive statistics (Laher & Hassem, 2020). In this study, the content analysis focused on the following categories: author, design and participants, procedures, measures of outcomes and results. Calculations of frequencies and percentages provide an indication of the elements on which the studies in literature Streams 2 and 3 converged in terms of methods and results reported.

## Results

The results from the three different streams are summarised in Tables 1 to 3. Table 1 provides a summary of literature pertaining to the historical role of industrial psychologists as counsellors and existing guidelines on workplace counselling for industrial psychologists. Table 2 includes experimental studies that reported on ACT protocols for workplace counselling and Table 3 contains a list of articles found on the application of brief ACT models.

### Stream 1: Industrial psychologists and work-based counselling

As presented in Table 1, industrial psychologists' role as work-based counsellors rose to prominence as a result of the work of Elton Mayo and the Hawthorne research team, who started investigations into the influence of work environments on employees (Highhouse, 1999). In literature Stream 1, all four publications emanating from the United States of America focus on the Hawthorne experiments and the counselling programme incorporated at this industrial electric plant. Attention to the counselling role of industrial psychologists dwindled in the 1960s (Highhouse, 1999), and literature Stream 1 revealed rising prominence as a result of the work of South African authors. Two of these studies highlighted counselling as a function of industrial psychology (Barnard & Fourie, 2007; Van Zyl, Nel, Stander, & Rothmann, 2016). Qualitative studies by Barkhuizen et al. (2014) provided greater insight into industrial psychologists' perceptions of counselling, and Barkhuizen et al. (2015) raised concerns regarding

**TABLE 1:** Industrial psychology and counselling.

Author	Design and participants	Result
<ul style="list-style-type: none"> <li>Barkhuizen et al. (2014)</li> <li>South Africa</li> </ul>	<ul style="list-style-type: none"> <li>A total of 22 registered IPs</li> <li>Qualitative</li> <li>Semi-structured interviews</li> </ul>	Themes: <ul style="list-style-type: none"> <li>Meaning of counselling</li> <li>Counselling situations</li> <li>Recommendations for training</li> <li>Include counselling in IP scope</li> </ul>
<ul style="list-style-type: none"> <li>Barkhuizen et al. (2015)</li> <li>South Africa</li> </ul>	<ul style="list-style-type: none"> <li>A total of 22 registered IPs</li> <li>Qualitative</li> <li>Semi-structured interviews</li> </ul>	Themes: <ul style="list-style-type: none"> <li>Counselling skills required</li> <li>Types of academic training</li> <li>Insufficient practical training</li> <li>Additional training received</li> <li>Recommendations for future training</li> </ul>
<ul style="list-style-type: none"> <li>Barnard and Fourie (2007)</li> <li>South Africa</li> </ul>	<ul style="list-style-type: none"> <li>A total of 23 registered IPs</li> <li>Qualitative</li> <li>Semi-structured interviews</li> </ul>	Theme: <ul style="list-style-type: none"> <li>IPs consider counselling part of professional role</li> </ul>
<ul style="list-style-type: none"> <li>Cantor (1945)</li> <li>United States of America</li> </ul>	Not applicable	Documents IP's role as counsellor at Western Electric's Hawthorne Plant
<ul style="list-style-type: none"> <li>Dickson (1945)</li> <li>United States of America</li> </ul>	Not applicable	Documents IP's role as counsellor at Western Electric's Hawthorne Plant
<ul style="list-style-type: none"> <li>Highhouse (1999)</li> <li>United States of America</li> </ul>	Not applicable	Discusses rise and fall of work-based counselling
<ul style="list-style-type: none"> <li>Jorgensen (2016)</li> <li>South Africa</li> </ul>	<ul style="list-style-type: none"> <li>A total of 48 IP master's students</li> <li>Qualitative</li> <li>Structured observation</li> </ul>	Intervention increased: <ul style="list-style-type: none"> <li>Intrapersonal awareness</li> <li>Interpersonal awareness</li> <li>Group awareness</li> </ul>
<ul style="list-style-type: none"> <li>Jorgensen-Graupner and Van Zyl (2019)</li> <li>South Africa</li> </ul>	Not applicable	Proposes counselling framework for IPs based on four phases: rooting, growing, branching, and thriving
<ul style="list-style-type: none"> <li>Minjoo et al. (2014)</li> <li>South Africa</li> </ul>	<ul style="list-style-type: none"> <li>A total of 11 articles identified</li> <li>Systematic review</li> </ul>	52.1% of studies indicate that CBT improves: <ul style="list-style-type: none"> <li>psychological functioning</li> <li>symptoms</li> <li>self-esteem</li> <li>psychosocial functioning</li> <li>Authors recommend CBT for IPs</li> </ul>
<ul style="list-style-type: none"> <li>Van Zyl, Nel, Stander and Rothmann (2016)</li> <li>South Africa</li> </ul>	<ul style="list-style-type: none"> <li>A total of 151 registered IPs</li> <li>Qualitative</li> </ul>	<ul style="list-style-type: none"> <li>Highlights brief counselling as an IP function</li> </ul>
<ul style="list-style-type: none"> <li>Wilensky and Wilensky (1951)</li> <li>United States of America</li> </ul>	Not applicable	Documents IP's role as counsellor at Western Electric's Hawthorne Plant

CBT, cognitive behavioural therapy; IPs, industrial psychologists

limitations in training. Jorgensen-Graupner and Van Zyl (2019) offered a broader therapeutic framework. Minjoo et al. (2014) conducted a literature review, which supported CBT as a viable counselling framework to improve employee outcomes. However, none of the publications in Stream 1 provided specific guidelines that could assist industrial psychologists who are novices at providing counselling. These findings emphasise the dearth of guidelines available to industrial psychologists to conduct work-based counselling, necessitating further exploration of literature found in Streams 2 and 3.

### Streams 2 and 3: Evidence for acceptance and commitment therapy protocols in the workplace and as brief therapy

As a result of overlap between the study designs found in Streams 2 and 3, the results will be discussed together. The literature consisted of randomised control trials with varied populations, namely employees ( $n = 6$  out of 14; 43%), students ( $n = 3$  out of 14; 21%) and self-referred clients

( $n = 5$  out of 14; 36%). Several studies used pre-screening procedures ( $n = 12$  out of 14; 86%), and, in most cases, a specified presentation or severity of pathology was demarcated. The identified participants were then assigned to different experimental conditions, namely ACT (or an adaption thereof), alternative therapies ( $n = 7$  out of 14; 50%), and/or a control group ( $n = 9$  out of 14; 64%). Trained professionals ( $n = 5$  out of 14; 36%) or postgraduate students of psychology ( $n = 8$  out of 14; 57%) provided ACT interventions aimed at individuals ( $n = 9$  out of 14; 64%) or groups ( $n = 6$  out of 14; 43%), which took place over the course of one to six sessions. In line with ACT principles, most of the interventions included experiential exercises ( $n = 12$  out of 14; 86%) and many included homework assignments ( $n = 9$  out of 14; 64%). Outcome measures were used to determine the effectiveness of therapies across time and condition and included instruments to evaluate anxiety and depressive states ( $n = 14$  out of 14; 100%). Frequently used outcome measures included the General Health Questionnaire (GHQ) ( $n = 6$  out of 14; 43%), the Beck Depression Inventory (BDI) ( $n = 7$  out of 14; 50%), the Maslach Burnout Inventory (MBI) ( $n = 3$ ; 21%) and the Perceived Stress Scale (PSS) ( $n = 3$ ; 21%). Process measures, such as the Acceptance and Action Questionnaire (AAQ) ( $n = 9$  out of 14; 64%), were frequently administered. The evidence from Streams 2 and 3 suggests that ACT consistently improves anxiety and depressive symptoms across time ( $n = 8$  out of 14; 57%). However, in most of the experiential studies, ACT ( $n = 2$  out of 7; 29%) did not outperform alternative therapies ( $n = 6$  out of 7; 86%).

## Discussion

The purpose of the study was to provide guidelines regarding the application of work-based counselling by industrial psychologists. The results from the literature review in Stream 1 confirms a paucity in this body of literature, which might contribute to South African industrial psychologists' perception of being ill-prepared for the role of counsellor. Streams 2 and 3 yielded literature that provides practical guidelines to industrial psychologists on the application of ACT interventions to reduce anxiety and depression-related symptoms. Clear recommendations on the provision of work-based counselling that is evidence-based can enhance South African industrial psychologists' competence and confidence in their role as counsellors. Protocols from Streams 2 and 3 guided the design of the ACT for Work Well-being Model by the authors and are presented in Figure 2.

### Acceptance and commitment therapy for Work Well-being Model

Although symptom reduction is not the ultimate hallmark of ACT, enhanced psychological flexibility is associated with reduced psychological distress (Gloster et al., 2020). The aim of ACT for the Work Well-being Model is to alleviate the impact of depression and anxiety symptoms, through work-based counselling, by enhancing

**TABLE 2:** Acceptance and commitment therapy as a work-based counselling intervention.

Author	Design and participants	Procedure	Process and outcome measures	Results
<ul style="list-style-type: none"> <li>Barrett and Stewart (2020)</li> <li>International</li> </ul>	<ul style="list-style-type: none"> <li>Social and healthcare workers</li> <li>Pre-screening reported</li> <li>ACT (<math>n = 13</math>)</li> <li>CBT (<math>n = 13</math>)</li> </ul>	<ul style="list-style-type: none"> <li>Individual-based interventions through an online programme</li> <li>Three sessions with videos/exercises for both conditions over 2 weeks</li> <li>Sessions for both conditions, followed by questions that track attention to material and experience of helpfulness</li> <li>Experiential exercises incorporated in both conditions</li> <li>Homework assigned in ACT</li> </ul>	<ul style="list-style-type: none"> <li>Perceived Stress Scale (PSS)</li> <li>General Health Questionnaire 12 (GHQ-12)</li> <li>Maslach Burnout Inventory (MBI)</li> <li>Work-related Acceptance and Action Questionnaire (WAAQ)</li> </ul>	<p><b>Time</b></p> <ul style="list-style-type: none"> <li>PSS: <math>F(1.40) = 7.30</math>; <math>p &lt; 0.05</math>; partial <math>\eta^2 = 0.15</math>. ACT and CBT lowered PSS score</li> <li>GHQ-12: <math>F(1.40) = 12.60</math>; <math>p &lt; 0.01</math>; partial <math>\eta^2 = 0.24</math>. ACT and CBT lowered GHQ score</li> <li>MBI: <math>F(1.40) = 4.87</math>; <math>p &lt; 0.05</math>; partial <math>\eta^2 = 0.11</math>. ACT and CBT lowered MBI score</li> </ul>
<ul style="list-style-type: none"> <li>Bond and Bunce (2000)</li> <li>United Kingdom</li> </ul>	<ul style="list-style-type: none"> <li>Employed university graduates from a media organisation</li> <li>No pre-screening reported</li> <li>ACT (<math>n = 30</math>)</li> <li>Innovation Promotion Programme (IPP) (<math>n = 30</math>)</li> <li>Control (<math>n = 30</math>)</li> </ul>	<ul style="list-style-type: none"> <li>Group interventions conducted by unspecified individuals</li> <li>Three half-day sessions of 3.25 h each, occurring at weeks 1, 2 and 14</li> <li>Experiential exercises incorporated in both conditions</li> <li>Homework assigned in both conditions</li> </ul>	<ul style="list-style-type: none"> <li>GHQ-12</li> <li>Beck Depression Inventory (BDI)</li> <li>Intrinsic job motivation</li> <li>Intrinsic job satisfaction</li> <li>Propensity to innovate</li> </ul>	<p><b>Multivariate time</b></p> <ul style="list-style-type: none"> <li><math>F(15.48) = 4.95</math>; <math>p &lt; 0.01</math>; <math>\eta^2 = 0.61</math></li> </ul> <p><b>Multivariate Time*Condition</b></p> <ul style="list-style-type: none"> <li><math>F(30.98) = 3.28</math>; <math>p &lt; 0.01</math>; <math>\eta^2 = 0.50</math>. GHQ scores lower for ACT compared to IPP and control. BDI score lower in ACT and IPP compared to control</li> </ul>
<ul style="list-style-type: none"> <li>Finnes, Ghaderi, Dahl, Nager and Enebrink (2019)</li> <li>Sweden</li> </ul>	<ul style="list-style-type: none"> <li>Employees screened for sick absence</li> <li>Screened participants with Mini International Neuropsychiatric Interview</li> <li>ACT (<math>n = 89</math>)</li> <li>Workplace Dialogue Intervention (WDI) (<math>n = 87</math>)</li> <li>ACT + WDI (<math>n = 88</math>)</li> <li>Treatment as usual (TAU) (<math>n = 88</math>)</li> </ul>	<ul style="list-style-type: none"> <li>Individual-based interventions conducted by 15 therapists</li> <li>ACT (6 sessions of 60 min each)</li> <li>WDI (3 meetings involving participant and supervisor at work)</li> <li>ACT + WDI (included both interventions)</li> <li>TAU (as offered by primary care centre)</li> <li>Experiential exercises incorporated in ACT</li> <li>Homework assigned in ACT</li> </ul>	<ul style="list-style-type: none"> <li>Net sickness absent days from registers</li> <li>Work Ability Index (WAI)</li> <li>Work and Social Adjustment Scale (WSAS)</li> <li>Satisfaction With Life Scale (SWLS)</li> <li>Karolinska Exhaustion Disorder Scale (KEDS)</li> <li>Hospital Anxiety and Depression Scale (HADS)</li> </ul>	<p><b>Time</b></p> <ul style="list-style-type: none"> <li>KEDS: <math>F(1424.60) = 264.90</math>; <math>p &lt; 0.01</math></li> <li>HADS Depression: <math>F(1458.50) = 122.19</math>; <math>p &lt; 0.01</math></li> <li>HADS Anxiety: <math>F(1424.30) = 58.97</math>; <math>p &lt; 0.01</math></li> </ul> <p><b>Time*Condition</b></p> <ul style="list-style-type: none"> <li>KEDS: <math>F(3424.10) = 3.01</math>; <math>p &lt; 0.05</math>. KEDS score lower for ACT (<math>d = -33</math>) and ACT + WDI (<math>d = -0.26</math>) compared to WDI and TAU</li> <li>HADS Depression: <math>F(3457.30) = 3.44</math>; <math>p &lt; 0.05</math>. HADS Depression score lower for ACT (<math>d = -46</math>) and ACT + WDI (<math>d = -37</math>) compared to WDI and TAU</li> </ul>
<ul style="list-style-type: none"> <li>Flaxman and Bond (2010)</li> <li>United Kingdom</li> </ul>	<ul style="list-style-type: none"> <li>Government employees</li> <li>Screened participants with GHQ</li> <li>ACT (<math>n = 37</math>)</li> <li>Stress Inoculation Training (SIT) (<math>n = 37</math>)</li> <li>Waitlist control group (WCG) (<math>n = 33</math>)</li> </ul>	<ul style="list-style-type: none"> <li>Group-based interventions conducted by first author</li> <li>Two half-day training sessions of 3 h each, 1 week apart</li> <li>Experiential exercises incorporated in both conditions</li> </ul>	<ul style="list-style-type: none"> <li>GHQ-12</li> <li>Acceptance and Action Questionnaire (AAQ)</li> <li>Dysfunctional Attitude Scale (DAS)</li> </ul>	<p><b>Time*Condition</b></p> <ul style="list-style-type: none"> <li>GHQ-12: <math>F(1.63) = 5.31</math>; <math>p &lt; 0.01</math>. GHQ score lower for ACT (<math>d = 1.31</math>) and SIT (<math>d = 1.21</math>) compared to control</li> </ul>
<ul style="list-style-type: none"> <li>Macías, Valero-Aguayo, Bond and Blanca (2019)</li> <li>Spain</li> </ul>	<ul style="list-style-type: none"> <li>Public administration employees</li> <li>Screened participants with GHQ</li> <li>Functional-Analytic Psychotherapy and Acceptance and Commitment Therapy (FACT) (<math>n = 19</math>)</li> <li>WCG (<math>n = 19</math>)</li> </ul>	<ul style="list-style-type: none"> <li>Individual-based intervention by unspecified individuals</li> <li>Three sessions of unspecified duration</li> <li>Experiential exercises incorporated in intervention</li> <li>Homework assigned between sessions</li> </ul>	<ul style="list-style-type: none"> <li>GHQ-12</li> <li>MBI</li> <li>AAQ-II</li> <li>WAAQ</li> <li>Depression, Anxiety, and Stress Scale-21 (DASS-21)</li> </ul>	<p><b>Time*Condition</b></p> <ul style="list-style-type: none"> <li>GHQ-12: <math>F = 45.70</math>; <math>p &lt; 0.01</math>; <math>\eta^2 = 0.57</math>. GHQ score lower for ACT compared to control</li> <li>MBI-GS Exhaustion: <math>F = 5.05</math>; <math>p &lt; 0.05</math>; <math>\eta^2 = 0.13</math>. MBI score lower for ACT compared to control</li> <li>MBI-GS Professional efficacy: <math>F = 4.72</math>; <math>p &lt; 0.01</math>; <math>\eta^2 = 0.12</math>. Professional efficacy score lower for ACT compared to control</li> <li>DASS-21 Total: <math>F = 4.73</math>; <math>p &lt; 0.05</math>; <math>\eta^2 = 0.12</math>. Total score lower for ACT compared to control</li> <li>DASS-21 Anxiety: <math>F = 16.77</math>; <math>p &lt; 0.01</math>; <math>\eta^2 = 0.32</math>. Anxiety score lower for ACT compared to control</li> </ul>

Note: Only significant effects or effects trending towards significance are reported for mental health outcomes in *Results*.

psychological flexibility. The identification and implementation of goals, analogous to the value and committed action processes in the ACT hexaflex, takes central focus in the ACT for Work Well-being Model. Goal-setting literature from the industrial psychology body of knowledge was incorporated into the model to create greater alignment with theories that are likely to be familiar to industrial psychologists. The four remaining hexaflex processes, namely defusion, acceptance, self-as-context and being in the present moment can be employed to establish greater psychological flexibility to circumvent barriers to goal achievement. Professionals registered as students, interns or industrial psychologists in independent practice can implement the steps provided in the model in their capacity as counsellors. Ideally, these practitioners should attend initial training and subsequent supervision by psychologists who are well-versed in ACT

applications to enhance their competence in using the model.

The appropriate client population to benefit from this intervention is self-nominated working adults, who present with mild to moderate symptoms of depression and anxiety. Industrial psychologists should use validated inventories to identify employees at risk, at the outset of therapy, rather than rely on their clinical judgement, which might be biased because of limited training and exposure. The following measurements show promise to be used: the Centre for Epidemiologic Studies' Depression Scale-Revised, Generalised Anxiety Disorder Scale 7 (Henn & Morgan, 2019), and the Depression and Anxiety Scale (Dreyer, Henn, & Hill, 2019). These instruments should only be used by industrial psychologists to identify employees at risk and not diagnose clients, as this would be outside of their scope of

practice, and should be referred to the appropriate professionals in severe cases (Henn & Morgan, 2019). Four individual sessions should be scheduled weekly with homework assignments between sessions. The ACT for Work Well-being Model is divided into different acts that highlight therapeutic procedures to follow in each session, as well as intermissions that include post-session activities for clients to carry out. In the discussion that ensues, each session will start with a text box that summarises findings from the literature review that is relevant to the aim of the session (see Boxes 1 to 4). An example (called a scene) is provided in each session to illustrate how an ACT exercise can be utilised to facilitate the session.

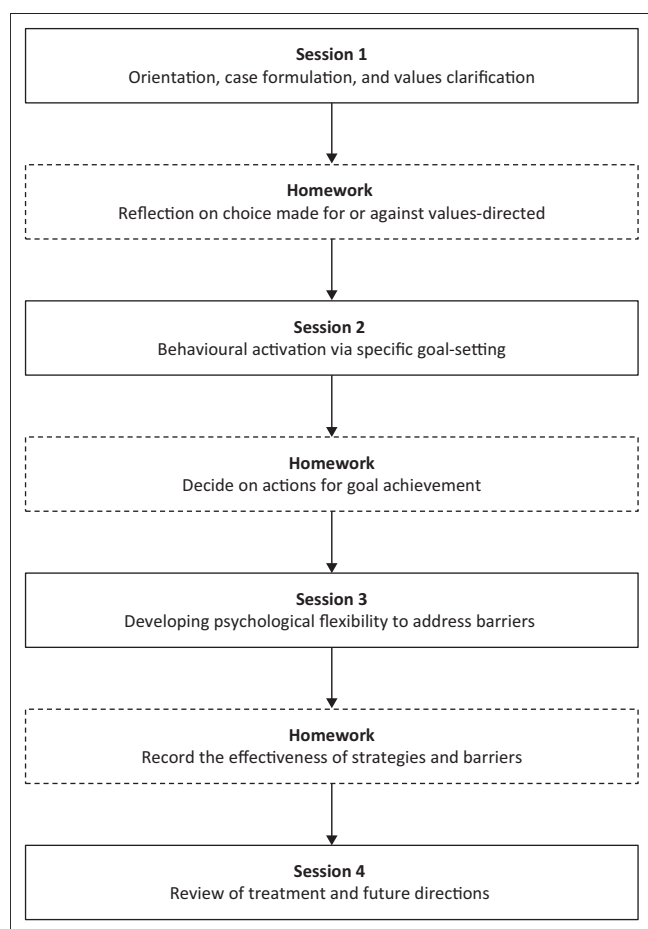


FIGURE 2: Acceptance and commitment therapy for work well-being model.

## Orientation, case formulation and values clarification

### BOX 1: Orientation, case formulation and values clarification.

- Incorporate rationales for using ACT at the outset of therapy in order to promote adherence to and motivation for the intervention (Barrett & Stewart, 2020; Macías et al., 2019; Ruiz et al., 2020).
- Include a case formulation at the beginning of therapy to understand the functional impact of the presenting complaint of the client (Brinkborg, Michanek, Hesser, & Berglund, 2011; Finnes et al., 2019; Folke et al., 2012; Kohtala et al., 2017; Macías et al., 2019).
- Add a values clarification exercise early in the therapeutic process to provide structure to subsequent sessions (Finnes et al., 2019; Folke et al., 2012; Kohtala et al., 2017; Macías et al., 2019; Pellowe, 2006).
- Give a homework exercise that will help the client to reflect on reasons for taking steps in a valued direction (Folke et al., 2012).

*ACT 1 (Orientation):* An orientation to the principles of ACT, and the associated aim to enhance psychological flexibility via the hexaflex model, serves to prepare the employee for therapy and promotes adherence to the conditions of the intervention. Issues surrounding informed consent and confidentiality should also be clarified at the outset of therapy to establish a psychologically safe environment where intimate details can be shared (Bond, 2004).

*ACT 2 (Case formulation):* Once the rules and structure of therapy is explained, a case formulation is composed. In ACT, the focus is less on the manifestation of psychopathology and more on its functional impact on the client. The prevalence of depression, for example, has implications for how clients structure their lives and how the sense of self is defined by the presence of depression (Hayes et al., 2004). Two questions, central to the case formulation are: (1) 'What kind of life does the client most deeply want to create and love?' and (2) 'What are the psychological and environmental processes that have inhibited or interfered with the pursuit of that kind of life?' (Hayes et al., 2012, p. 106). The timeline of the problem should be established by considering its trajectory, antecedents and consequences (Hayes et al., 2012). The Flexibility Rating Sheet proposed by Hayes et al. (2012) can be used to help therapists structure their thoughts around a case formulation within the hexaflex framework of ACT.

*ACT 3 (Values clarification):* Inquiring about the extent to which employees are living according to their major life goals could enhance insight into the discrepancy between current behaviour and major life goals, and if facilitated correctly, can be used as a positive strength-based approach (Hayes et al., 2012). There is considerable overlap between the ACT definition of values and how Roberts and Robins (2000) typify major life goals. Given the brevity of the process, clarifying the employee's major life goals (broad agendas for major life domains) (Roberts & Robins, 2000) can serve as a compass to establish more effective life patterns. Major life goals consist of economic goals, aesthetic goals, social goals, relationship goals, political goals, hedonistic goals, religious goals, personal growth goals, physical well-being goals and theoretical goals (Roberts & Robins, 2000). Utilising major life goals is a pragmatic method of linking broad values to specific goals that can be advanced through the counselling process. Major life goals come with the added benefit of existing literature, situated in a nomological net that is associated with interest and personality research (Stoll, Einarsdóttir, Song, Ondish, Sun, & Rounds, 2020).

*A scene from ACT 3:* A powerful ACT strategy to elicit major life goals is the eulogy exercise, which requires of clients to think about what they would like others to say about them at their funeral (Strosahl et al., 2004). Clients could also rank their major life goals to determine their most valued direction for the future.

*Intermission:* Homework is assigned after Session 1, to ensure further reflection and refinement of major life goal descriptions, in preparation for the subsequent session. Clients need to reflect on what would happen if they continue to struggle with the concerns that prevent the pursuit of

**TABLE 3:** Brief acceptance and commitment therapy interventions.

Author	Design and participants	Procedure	Process and outcome measures	Results
<ul style="list-style-type: none"> <li>• Brinkborg, Michanek, Hesser and Berglund (2011)</li> <li>• Sweden</li> </ul>	<ul style="list-style-type: none"> <li>• Social workers</li> <li>• No screening performed</li> <li>• ACT Stress Intervention ACT-SMI (<math>n = 70</math>)</li> <li>• Control (<math>n = 36</math>)</li> </ul>	<ul style="list-style-type: none"> <li>• Group-based intervention conducted by two registered psychologists and two master's students</li> <li>• Four sessions of 3 h each, every other week</li> <li>• Experiential exercises incorporated in intervention</li> <li>• Homework assigned between sessions</li> </ul>	<ul style="list-style-type: none"> <li>• PSS</li> <li>• GHQ-12</li> <li>• MBI</li> <li>• Performance-based self-esteem scale (PBSE-scale)</li> <li>• Demand-Control-Support Questionnaire (DCSQ)</li> <li>• AAQ</li> </ul>	<p><b>Time*Condition</b></p> <ul style="list-style-type: none"> <li>• PSS: <math>F(1103) = 12.88</math>; <math>p &lt; 0.01</math>; <math>d = 0.72</math>. PSS score lower for ACT-SMI compared to control.</li> <li>• GHQ: <math>F(1103) = 5.48</math>; <math>p &lt; 0.05</math>; <math>d = 0.38</math>. GHQ score lower for ACT-SMI compared to control</li> <li>• MBI-total: <math>F(1103) = 15.30</math>; <math>p &lt; 0.01</math>; <math>d = 0.50</math>. Total score lower for ACT compared to control</li> </ul>
<ul style="list-style-type: none"> <li>• Folke, Parling and Melon (2012)</li> <li>• Sweden</li> </ul>	<ul style="list-style-type: none"> <li>• Unemployed citizens on long-term sick leave because of depression</li> <li>• Excluded participants with sick leave certificates</li> <li>• ACT (<math>n = 18</math>)</li> <li>• Control (<math>n = 16</math>)</li> </ul>	<ul style="list-style-type: none"> <li>• Individual and group-based intervention conducted by two master's students</li> <li>• Six sessions, of which first session was 60–90 min and subsequent sessions were 120–180 min</li> <li>• Experiential exercises incorporated in intervention</li> <li>• Homework assigned between sessions</li> </ul>	<ul style="list-style-type: none"> <li>• BDI</li> <li>• GHQ-12</li> <li>• PSS</li> <li>• World Health Organization Quality of Life Assessment (WHOQOL-BREF)</li> <li>• Sick leave office records</li> </ul>	<p><b>Time</b></p> <ul style="list-style-type: none"> <li>• GHQ: <math>F(248.23) = 3.09</math>; <math>p = 0.06</math>.</li> <li>• PSS: <math>F(247.75) = 4.62</math>; <math>p &lt; 0.05</math>.</li> </ul> <p><b>Time*Condition</b></p> <ul style="list-style-type: none"> <li>• BDI: <math>F(230.17) = 5.57</math>; <math>p &lt; 0.01</math>; <math>d = 0.86</math>. BDI score lower for ACT compared to control</li> <li>• GHQ: <math>F(248.23) = 3.20</math>; <math>p &lt; 0.05</math>; <math>d = 0.52</math>. GHQ score lower for ACT compared to control</li> </ul>
<ul style="list-style-type: none"> <li>• Glassman et al. (2016)</li> <li>• USA</li> </ul>	<ul style="list-style-type: none"> <li>• Individuals with public speaking anxiety</li> <li>• Screened participants with biographics and psychodiagnostics structured interview</li> <li>• Traditional Cognitive Behaviour Treatment (tCBT) (<math>n = 11</math>)</li> <li>• Acceptance-based Behaviour Treatment (ABBT) (<math>n = 10</math>)</li> </ul>	<ul style="list-style-type: none"> <li>• Individual-based intervention conducted by doctoral students in clinical psychology</li> <li>• A 90-min session, including 8 speech exposures of 2 min each</li> </ul>	<ul style="list-style-type: none"> <li>• Anxiety Disorders Interview Schedule for DSM-IV (ADIS-IV)</li> <li>• Structured Clinical Interview for DSM-IV (SCID-IV)</li> <li>• Subjective Units of Discomfort Scale (SUDS)</li> <li>• Behavioural Assessment Test (BAT)</li> <li>• Speech Performance Scale (SPS)</li> <li>• fNIRS instrumentation</li> </ul>	<p><b>Time*Condition</b></p> <ul style="list-style-type: none"> <li>• SUDS: <math>F = 4.04</math>; <math>p = 0.06</math>; <math>\eta^2 = 0.22</math>. SUDS score lower for tCBT compared to ABBT</li> </ul>
<ul style="list-style-type: none"> <li>• Hinton and Gaynor (2010)</li> <li>• USA</li> </ul>	<ul style="list-style-type: none"> <li>• Undergraduate students</li> <li>• Screened participants with RSES and BSI</li> <li>• Cognitive Defusion (CD) (<math>n = 10</math>)</li> <li>• WCG (<math>n = 12</math>)</li> </ul>	<ul style="list-style-type: none"> <li>• Individual-based intervention conducted by a doctoral student in clinical psychology</li> <li>• 3 weekly sessions</li> <li>• Experiential exercises incorporated in intervention</li> <li>• Homework assigned between sessions</li> </ul>	<ul style="list-style-type: none"> <li>• Rosenberg Self-Esteem Scale (RSES)</li> <li>• Brief Symptom Inventory (BSI)</li> <li>• Self-Thought Fluency Assessment (STFA)</li> <li>• BDI-II</li> <li>• AAQ-II</li> <li>• Automatic Thoughts Questionnaire-Positive (ATQ-P)</li> <li>• Mini Cognitive Defusion and Slippage Scale</li> </ul>	<p><b>Time*Condition</b></p> <ul style="list-style-type: none"> <li>• BSI: <math>F = 9.32</math>; <math>p &lt; 0.01</math>; <math>g = 0.70</math>. Lower BSI score in CD compared to control</li> <li>• BDI-II: <math>F = 6.40</math>; <math>p &lt; 0.05</math>; <math>g = 1.04</math>. Lower BDI-II in CD compared to control</li> </ul>
<ul style="list-style-type: none"> <li>• Kohtala, Muotkha and Lappalainen (2017)</li> <li>• Finland</li> </ul>	<ul style="list-style-type: none"> <li>• Self-referred clients</li> <li>• Excluded participants with subjective reported depression, schizophrenia, alcoholism, brain injury, or neurological disorder</li> <li>• ACT (<math>n = 28</math>)</li> <li>• WCG (<math>n = 29</math>)</li> </ul>	<ul style="list-style-type: none"> <li>• Individual-based intervention conducted by master's students in psychology</li> <li>• 4 weekly sessions (60 min)</li> <li>• 6-month and 5-year follow-up</li> <li>• Experiential exercises incorporated in intervention</li> </ul>	<ul style="list-style-type: none"> <li>• BDI-II</li> <li>• Symptom Checklist-90 (SCL-90)</li> <li>• General Severity Index (GSI)</li> <li>• Social Adaptation Self-Evaluation Scale (SASS)</li> <li>• Visual Analog Scales (VAS)</li> <li>• AAQ-II</li> <li>• Kentucky Inventory of Mindfulness Skills (KIMS)</li> </ul>	<p><b>Time</b></p> <ul style="list-style-type: none"> <li>• BDI at 5-year follow-up: estimate = <math>-4.05</math>; <math>p &lt; 0.01</math></li> <li>• SCL-90-GI at 5-year follow-up: estimate = <math>-0.16</math>; <math>p &lt; 0.01</math></li> <li>• VAS Mood at 5-year follow-up: estimate = <math>6.93</math>; <math>p &lt; 0.05</math></li> <li>• VAS Self-confidence at 5-year follow-up: estimate = <math>7.28</math>; <math>p &lt; 0.05</math></li> <li>• VAS Life satisfaction at 5-year follow-up: estimate = <math>8.55</math>; <math>p &lt; 0.01</math></li> </ul>
<ul style="list-style-type: none"> <li>• Kroska, Roche and O'Hara (2020)</li> <li>• USA</li> </ul>	<ul style="list-style-type: none"> <li>• Self-referred clients</li> <li>• Screened participants with Patient Health Questionnaire (PHQ)</li> <li>• 90-min ACT (<math>n = 35</math>)</li> <li>• 3 h ACT (<math>n = 48</math>)</li> <li>• 6 h ACT (<math>n = 50</math>)</li> </ul>	<ul style="list-style-type: none"> <li>• Group-based intervention conducted by five doctoral students in psychology</li> <li>• One session with different conditions</li> <li>• Six questions asked to facilitate group discussions</li> </ul>	<ul style="list-style-type: none"> <li>• BDI-II</li> <li>• AAQ-II</li> <li>• Five Facet Mindfulness Questionnaire (FFMQ)</li> <li>• Satisfaction with Participation in Social Roles and Activities Scale</li> </ul>	<p><b>Time</b></p> <ul style="list-style-type: none"> <li>• BDI: <math>F(3372.73) = 54.93</math>; <math>p &lt; 0.01</math></li> </ul>
<ul style="list-style-type: none"> <li>• Larsson, Hooper, Osborne, Bennett and Hugh (2015)</li> </ul>	<ul style="list-style-type: none"> <li>• Student and community populations</li> <li>• Screened participants with BDI-II</li> <li>• Cognitive restructuring (<math>n = 24</math>)</li> <li>• Cognitive defusion (<math>n = 24</math>)</li> <li>• Control group (<math>n = 23</math>)</li> </ul>	<ul style="list-style-type: none"> <li>• Individual-based intervention conducted by authors</li> <li>• Participants received instructions and completed experiential exercises with an instructor during one session</li> <li>• Daily text reminders to complete online thought logs over 5 days</li> </ul>	<ul style="list-style-type: none"> <li>• BDI-II</li> <li>• The State Trait Anxiety Inventory (STAI)</li> <li>• The Positive and Negative Affect Schedule (PANAS)</li> <li>• AAQ-II</li> </ul>	<p><b>Time</b></p> <ul style="list-style-type: none"> <li>• BDI-II: <math>F(1.69) = 8.06</math>; <math>p &lt; 0.01</math>. Lower BDI-II score in defusion group compared to cognitive restructuring and control group (<math>d = 1.61</math>)</li> </ul> <p><b>Time*Condition</b></p> <ul style="list-style-type: none"> <li>• PANAS positive affect (<math>F(2.68) = 10.69</math>); <math>p &lt; 0.01</math>. Higher positive affect score in defusion group compared to cognitive restructuring and control group (<math>d = -1.32</math>)</li> </ul>
<ul style="list-style-type: none"> <li>• Pellowe (2006)</li> <li>• USA</li> </ul>	<ul style="list-style-type: none"> <li>• Students</li> <li>• Screened participants with BDI-II</li> <li>• ACT (<math>n = 25</math>)</li> <li>• Supportive therapy control group (SGT) (<math>n = 27</math>)</li> </ul>	<ul style="list-style-type: none"> <li>• Group-based intervention conducted by two advanced graduate students in clinical psychology, including author.</li> <li>• 4-weekly 50-min sessions</li> <li>• Unstructured therapeutic discussions in SGT condition</li> <li>• Experiential exercises incorporated in ACT condition</li> <li>• Homework assigned between sessions</li> </ul>	<ul style="list-style-type: none"> <li>• AAQ</li> <li>• BDI-II</li> <li>• Dysfunctional Attitude Scale (DAS)</li> </ul>	<p><b>Time</b></p> <ul style="list-style-type: none"> <li>• BDI-II for ACT: <math>t(24) = 3.67</math>; <math>p &lt; 0.01</math>; <math>d = 0.74</math></li> <li>• DAS for ACT <math>t(24) = -3.18</math>; <math>p &lt; 0.01</math>; <math>d = -0.61</math></li> <li>• BDI-2 for SGT <math>t(26) = 2.34</math>; <math>p &lt; 0.05</math>; <math>d = 0.45</math></li> </ul>

Table 3 continues on the next page →



**TABLE 3 (Continues...):** Brief acceptance and commitment therapy interventions.

Author	Design and participants	Procedure	Process and outcome measures	Results
<ul style="list-style-type: none"> <li>Ruiz et al. (2020)</li> <li>Spain</li> </ul>	<ul style="list-style-type: none"> <li>Self-identified clients</li> <li>Screened participants with Mini International Neuropsychiatric Interview</li> <li>Repetitive Negative Thinking-Focussed (RNT) – ACT (<math>n = 23</math>)</li> <li>WCG (<math>n = 25</math>)</li> </ul>	<ul style="list-style-type: none"> <li>Individual-based intervention conducted by master's and doctoral students in clinical psychology</li> <li>Two weekly individual 60-min sessions</li> <li>Experiential exercises incorporated in intervention</li> <li>Homework included listening to audio files</li> <li>Post measurement was a 1-month follow-up</li> </ul>	<ul style="list-style-type: none"> <li>Depression, Anxiety, and Stress Scales–21 (DASS-21)</li> <li>Perseverative Thinking Questionnaire (PTQ)</li> <li>AAQ-II</li> <li>Cognitive Fusion Questionnaire (CFQ)</li> <li>Valuing Questionnaire (VQ)</li> <li>Generalised Pliance Questionnaire–9 (GPQ-9)</li> </ul>	<b>Time*Condition</b> <ul style="list-style-type: none"> <li>DASS-21: <math>t(40.40) = 6.11</math>; <math>p &lt; 0.01</math>; <math>B = 4.13</math>; 95% CI [2.76, 5.49]. Lower DAS-21 score for RNT-ACT compared to control (<math>d = 2.42</math>)</li> <li>DASS-21 Depression: <math>t(40.05) = 3.30</math>; <math>p &lt; 0.01</math>; <math>B = 1.10</math>; 95% CI [0.43, 1.77]. Lower depression score for RNT-ACT compared to control (<math>d = 1.48</math>)</li> <li>DASS-21 Anxiety: <math>t(40.80) = 5.62</math>; <math>p &lt; 0.01</math>; <math>B = 1.46</math>; 95% CI [0.94, 1.98]. Lower anxiety score for RNT-ACT compared to control (<math>d = 1.81</math>)</li> <li>DASS-21 Stress: <math>t(130.89) = 7.24</math>; <math>p &lt; 0.01</math>; <math>B = 1.64</math>; 95% CI [1.19, 2.08]. Lower stress score for RNT-ACT compared to control (<math>d = 2.96</math>)</li> </ul>

Note: Only significant effects or effects trending towards significance are reported for mood in *Results* column.

major life goals in comparison to what is possible when they can take steps in order to live closer to their values.

### Behavioural activation via specific goal-setting

#### BOX 2: Behavioural activation via specific goal-setting.

- Supplement the value clarification process with setting specific goals, which serve as attainable targets to live values (Barrett & Stewart, 2020; Brinkborg et al., 2011; Flaxman & Bond, 2010; Kohtala et al., 2017; Kroska et al., 2020; Pellowe, 2006).
- Include strategies focussed on identifying actions plans to achieve therapeutic goals (Barrett & Stewart, 2020; Brinkborg et al., 2011; Flaxman & Bond, 2010; Kohtala et al., 2017; Pellowe, 2006).

**ACT 4 (Setting specific goals):** The identification of more specific therapeutic goals will assist employees to put major life goals into action (Kohtala et al., 2017). Counsellors are tasked with facilitating a process in which the client identifies specific goals that relate to their most valued major life goals. When setting specific goals, the employee must be guided to set self-directed, challenging, sufficiently complex, emotionally pleasing, meaningful and practically feasible goals to ensure the required self-efficacy and commitment to achieve such goals (Locke & Latham, 2013; Van Lill, Roodt, & De Bruin, 2020). If the therapeutic goals appear impractical or the client's expressed intention to pursue the therapeutic goals seem unconvincing, the counsellor should encourage further calibrations to the goals to enhance commitment. Visualising how life might be different when the therapeutic goals are achieved could also increase the client's motivation.

**ACT 5 (Identifying and choosing actions):** A clear comprehension of the outcomes to achieve should assist the employee to identify and commit to action strategies that can lead to change. The counsellor should start by considering the client's previous actions that were unsuccessful in achieving major life goals. Then the counsellor can discuss actions that will expand the client's behaviour repertoire, also referred to as target behaviours or goal-related behaviours (Scobbie, Dixon, & Wyke, 2011) and guide the client to choose actions they can start implementing over the next week.

*If and then* statements might be a meaningful behavioural script that clients can adopt, instead of consciously thinking about every next action required to achieve therapeutic goals. An *if* statement could reflect a situation, to which a *then* statement would reflect an appropriate behavioural response that will lead to the achievement of a specific and distal major goal. These statements can assist in formulating the *when*, *where* and *how* of implementation intentions to concretise the achievement of goals (Gollwitzer & Sheeran, 2006). For example, *if* I have the option of an elevator or stairs in a building (*when* and *where* related to a situation), *then* I will walk up the stairs (*how*). This will enable me to get more exercise at work (specific therapeutic goal) to live a healthy lifestyle (*major life goal*).

*A scene from ACT 5:* Generating creative hopelessness is a strategy to help clients to recognise their unsuccessful efforts to control problems in their lives (Hayes et al., 2012). The intention is for the client to realise that letting go of the struggle with the problem is the best way to pursue their values. 'The person in the hole exercise' could be a valuable intervention to illustrate how digging further will not get the client out of the hole (Strosahl et al., 2004). Instead, to live a life of value, the client needs to invest energy in pursuing major life goals.

*Intermission:* A homework assignment could include further reflection on the actions discussed during the session and as per Bond's (2004) recommendation, the client can draft a list of specific actions that will enhance committed action to achieve therapeutic goals.

### Developing psychological flexibility to address barriers

#### BOX 3: Developing psychological flexibility to address barriers.

- Identification of barriers that prevent committed action (Brinkborg et al., 2011; Finnes et al., 2019; Flaxman & Bond, 2010; Folke et al., 2012; Kohtala et al., 2017; Kroska et al., 2020).
- Enhance psychological flexibility by implementing the six processes of the hexaflex model (Barret & Stewart, 2020; Bond & Bunce, 2000; Finnes et al., 2019; Flaxman & Bond, 2010; Folke et al., 2012; Glassman et al., 2016; Hinton & Gaynor, 2010; Kroska et al., 2020; Larsson et al., 2015; Macías et al., 2019; Ruiz et al., 2020).

*ACT 6 (Identify barriers to goal pursuit):* Barriers could include internal events (e.g. thoughts, feelings, memories and physical sensations) or external events (e.g. feedback from other people, contextual limitations and unexpected events) that undermine goal pursuits. Oettingen, Wittchen and Gollwitzer (2013) recommend a proactive approach to identifying possible challenges to goal pursuit to bolster the employee's implementation intentions and, consequently, goal achievement. The list of actions, compiled as homework for Session 2, can be extended to include a column of possible barriers that might undermine the achievement of value-directed goals.

*ACT 7 (Creating psychological flexibility):* The six processes of the hexaflex model should be applied to assist clients in managing their identified barriers. Interventions aimed at facilitating acceptance can create a willingness to make room for barriers whilst continuing with committed action in a value-driven manner. Untangling cognitive fusion, being in contact with the present moment, and developing alternative perspectives on the self (Ruiz et al., 2020; Strosahl et al., 2004) can be utilised to address challenges that prevent intentions from becoming actions. If and then statements (discussed in ACT 5) might also be a meaningful way to build contingencies around barriers to goal-directed behaviour.

*A scene from ACT 7:* The flip card exercise is a defusion strategy that involves the counsellor writing down troubling thoughts on cards and tossing them back to the client (Strosahl et al., 2004). Viewing thoughts that limit value-driven life on cards can create distance and help the client not to buy into the thoughts. Clients can first be asked to fight off the cards tossed by the counsellor and then allow them to fall in their laps to notice the difference between fighting cognitions and creating room for them.

*Intermission:* The homework assignment for Session 3 focuses on the implementation of the identified behavioural strategies. Counsellors can instruct clients to make specific notes about the effectiveness of the strategies and the barriers that came up and how they attempted to overcome them. This can serve as a feedback loop to revise goals or related action plans.

## Review of treatment and future directions

**BOX 4:** Review of treatment and future directions.

- Reflect on highlights from intervention by inquiring about lessons that the clients learned and changes they were able to implement (Barrett & Stewart, 2020; Folke et al., 2012)
- Encourage clients to continue with and expand on the committed actions that they have implemented through the counselling process (Barrett & Stewart, 2020; Brinkborg et al., 2011; Finnes et al., 2019; Folke et al., 2012; Macias et al., 2019; Pellowe, 2006)

*ACT 8 (Reviewing intervention):* The first part of the final session is aimed at reviewing the identified goals and consequent behavioural intervention. There should be an

evaluation of the employees' satisfaction with the progress they made in achieving their goals and the success of their behavioural strategies. The counsellor can inquire about any successes (even small ones) in goal achievement and the consequent impact on the client. Preparing the client for termination will be a segue into the final ACT, which concerns continuation of the gains obtained from counselling.

*ACT 9 (Continuing committed action):* Depending on the success of the committed action strategies, the counselling process will focus on adapting or expanding on the strategies. Successful implementation of committed action should be celebrated and reinforced, whilst future goals are discussed to extend the gains from counselling and prevent regression to an emphasis on the symptoms of anxiety and depression. Sustained implementable actions are required to continue goal achievement and maintain commitment to value-driven living. If employees have to actively choose a course of action in line with goals every time an alternative presents itself, it might deplete their self-regulatory resources (Oettingen et al., 2013). Work-based counsellors should help their clients to create habits (implementation intentions) that will automate goal-related actions and continue after the counselling process.

*A scene from ACT 9:* During the session, the counsellor can introduce a combination of breathing and visualisation exercises to encourage awareness, acceptance and non-judgement towards inner experiences (Strosahl et al., 2004). The counsellor can encourage the client to incorporate these exercises as part of their daily routines to maintain a focus on their values and make room for challenging inner experiences.

## Limitations and recommendations

This study concentrated on symptoms related to depression and anxiety but it could also be helpful to establish models to address other presentations of mental ill-being in the workplace. To focus the research, the literature review only considered ACT interventions. Investigating other available experimental designs could yield valuable information to inform work-based counselling processes. In addition, the non-significant differences between ACT and other forms of therapy found in literature Streams 2 and 3 might be explained by meta-therapeutic aspects at play in the social context of therapy that contribute to interventions' effectiveness (Wampold & Imel, 2015). Future research endeavours could investigate the role and application of meta-therapeutic aspects as a contributing factor in the efficacy of work-based counselling.

The present study proposes broad theoretical parameters according to which an ACT protocol can be structured for industrial psychologists. Future studies could run randomised control trials to determine the effectiveness with which industrial psychologists can apply the protocol in

order to assist clients with anxiety and depression, which will require pre- and post-assessments. Although all the studies incorporated in literature Streams 2 and 3 included pre- and post-counselling measurement of symptoms, ACT aims to improve psychological flexibility and symptom reduction is often a consequence of this primary aim (Gloster et al., 2020). For the purposes of further experimental research, it might be beneficial to validate and include a process measure, such as the WAAQ, as a measure of psychological flexibility.

## Conclusion

With the global rise in mental health distress, industrial psychologists are bound to come across situations in the workplace where counselling is required. When considering the potential costs of mental health concerns for organisations, industrial psychologists have an obligation to their organisations, as well as an ethical duty as psychologists, to intervene when employees present with mental health challenges. Unfortunately, counselling has been a neglected area in the industrial psychology body of literature. The systematic literature review yielded multiple control trial studies that validated the benefits of ACT interventions in addressing anxiety and depressive symptoms in both clinical and work contexts. Based on available guidelines, the ACT for Work Well-being Model is proposed for use by industrial psychologists to offer a brief ACT intervention. The model is designed for further empirical testing, and the suggested guidelines should direct further investigations.

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### Authors' contributions

X.v.L. and R.v.L. conducted the literature review, analysed the data and developed the brief therapeutic model.

### Ethical considerations

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### Data availability

The titles of the publications considered in the systematic literature review can be made available on request to the corresponding author, X.v.L.

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