Title Page:

Acceptance and Commitment Therapy for people experiencing appearance-related distress associated with a visible difference: Rationale and review of relevant research.

Abstract

People may have a visibly different appearance due to various causes, such as congenital conditions, injury, disease or medical treatment. Some individuals with a visible difference experience social anxiety and isolation, body image dissatisfaction, shame and self-stigma, psychological trauma, and challenges managing their condition. In this article we synthesise the relevant literature and present the theoretical rationale for the application of Acceptance and Commitment Therapy (ACT), a third-wave behavioral therapy combining mindfulness skills and value-driven action, to those experiencing distress relating to an unusual or altered appearance. We also outline how ACT may be tailored to the specific considerations of this population, and recommend next steps in researching its acceptability and clinical effectiveness.

Keywords: acceptance, appearance, mindfulness, body image, stigma

Psychosocial Challenges associated with Visible Difference

In an appearance-focused society, around 60 – 80 per cent of the adult general population report being dissatisfied with their appearance (Harris and Carr, 2001; Liossi, 2003). What does this mean, then, for individuals whose appearance is different to the 'norm'? A visible difference may result from a congenital condition either evident from birth (e.g. cleft lip and/or palate) or emerging later (e.g. neurofibromatosis). People may also acquire a visible difference through skin conditions (e.g. vitiligo), atypical physical development (e.g. breast asymmetry), traumatic injury (e.g. burns), self-harm or medical treatment (e.g. surgery for cancer; Rumsey and Harcourt, 2004). An altered appearance may also not always appear obvious to others, but can represent a profound change to the affected individual.

While many with a visible difference adjust well psychologically to having an unusual or changed appearance (Egan et al. 2011), some encounter difficulties. Many report staring, name-calling and unsolicited questioning from strangers (Kleve and Robinson, 1999). Research suggests people are inclined to make negative evaluations about individuals with a visible difference (Stevenage and McKay, 1999) and avoid them or maintain an usually large distance (Houston and Bull, 1994; Ryan, Oaten, Stevenson & Case, 2012). Research spanning multiple conditions has demonstrated relationships between visible difference and various psychological outcomes. These include social anxiety and isolation, body image dissatisfaction, shame and self-stigma, and poor quality of life (Appearance Research Collaboration, 2014; Rumsey and Harcourt, 2012; Thompson, Kent, and Smith, 2002).

One of the most consistent findings in the literature is that many people who struggle to adjust psychologically to having a visible difference experience social anxiety and withdrawal (Norman and Moss, 2015). Affected individuals often recall encountering negative reactions by others in public situations, or at least fear such reactions (Kent, 2000; Rumsey and Harcourt, 2004). As a result, they may withdraw from activities and aspects of life that give them purpose and pleasure. As with obesity, social stigma towards those with an unusual appearance can also be internalized by the recipients, leading to self-stigma (Thompson and Kent, 2001). Clinical consensus holds shame as integral to shaping social anxiety in people with a visible difference (Clarke et al., 2014), but minimal empirical research has measured body shame or self-stigma in this group. In a rare study on the topic, Young (2005) reported half of over 500 adults with psoriasis felt shameful. Shame also emerged as a prominent theme among participants in a qualitative study of the psychological effects of psoriasis (Magin et al., 2009).

The body image of people with a visible difference is likely to be negatively impacted by culturally imposed attractiveness norms, and reinforced by experiencing negative reactions from others. Even those who do not commonly receive negative attention may reinforce their own body dissatisfaction, for example by feeling the need to conceal their difference under clothing or heavy makeup (Clarke et al., 2014). Receiving unsolicited attention, or in its absence worrying about receiving such attention, is likely to heighten self-consciousness about one's overall appearance. This only increases the chances of individuals with a visibly difference also feeling dissatisfied with other aspects of their body. There is no definitive data comparing body dissatisfaction in the general population to those with a visible difference. However, research does highlight the importance of body image processes

in determining distress in people with a visible difference. Specifically, negative emotional self-evaluation of appearance (appearance valence) and high cognitive salience of self-relevant appearance information both predict greater distress (Appearance Research Collaboration, 2014; Moss and Rosser, 2012). Similarly, individuals' subjective judgment of the noticeability of their visibly different feature more reliably predicts distress than objective visibility (Appearance Research Collaboration, 2014). Body dissatisfaction therefore appears to have a significant impact on wellbeing for people with a visible difference.

Appearance-altering injuries, including but not limited to burns and road traffic accidents, also confer a risk of acute and posttraumatic stress symptoms (Wisely and Gaskell, 2012). Burn injury, for example, can be viewed as 'continuous traumatic stress', moving from painful, disorientating hospital treatment to reintegrating into daily life with an altered appearance, and for some, chronic pain (Gilboa, Friedman & Tsur, 1994). People with a congenital appearance-affecting condition may not endure such a traumatic event, but may have experienced repeated bullying, rejection and exclusion since childhood (Rumsey and Harcourt, 2004). Accumulation of such 'small t' traumatic events can cause complex/relational trauma, marked by disrupted emotional regulation, relational and identity-formation processes, and posttraumatic stress symptoms (van der Kolk, 2001).

Many of those with appearance concerns relating to a visible difference also live with symptomatic health conditions. These may fluctuate over time (e.g. psoriasis), involve chronic pain (e.g. lipoedema) or itchiness (e.g. keloid scarring, eczema), require ongoing treatment (e.g. cleft lip and/or palate) or offer uncertain prognosis (e.g. cancer). These individuals must therefore also contend with the psychological challenges of managing a health condition.

Traditional Psychological Interventions for Psychosocial Challenges associated with Visible Difference

Public-level interventions that aim to improve attitudes towards people with a visible difference are vital, as they should reduce behaviours that negatively affect these individuals (Changing Faces, 2017). Alongside such work, there is also a clear need for psychological intervention for affected individuals to improve their quality of life. Traditional cognitive behavioral therapy (CBT) appears the most commonly adopted model for this group (Bessell and Moss, 2007; Harcourt et al.,2018). In this setting, CBT focuses on challenging negative assumptions about one's appearance, and using behavioral experiments combined with cognitive restructuring to help patients confront feared situations (Kent, 2000). Social skills training for managing other's reactions through confident, proactive communication, has also been commonly employed (Bessell and Moss, 2007).

However, a recently updated systematic review of psychological interventions for people experiencing distress relating to a visible difference found very limited evidence in support for CBT or social skills training, whether delivered separately or in combination. This is attributed to small effect sizes, differing modes of delivery (e.g. self-help and group formats), and heterogeneous sample characteristics (some included multiple conditions, others single conditions; Bessell and Moss, 2007; Norman and Moss, 2015). Muftin and Thompson (2013) separately reviewed all self-help interventions, finding tentative support for self-help as a mode of intervention for appearance anxiety, but not of any particular therapeutic model. Perhaps unsurprisingly, no relevant evidence-based guidelines exist for

psychological intervention, nor any clear qualitative data on what approaches individuals find accessible and acceptable.

Acceptance and Commitment Therapy for this Population

Acceptance and Commitment Therapy (ACT) is a third-wave behavioral therapy that helps individuals clarify their personal values and commit to living in alignment with these values. To loosen the grip of difficult thoughts and feelings associated with valued action (such as worrying and anxiety in social encounters), individuals cultivate mindfulness skills (Hayes, Luoma, Bond, Masuda & Lillis, 2006). According to ACT theory, two central mechanisms drive all human suffering: experiential avoidance, a coping style of attempting to prevent or change cognitions, feelings or physical sensations— even when doing so creates harm in the long-run; and cognitive fusion, the tendency to identify with and act according to thoughts (Hayes et al., 2006). ACT can be viewed as a form of CBT as it is similarly concerned with the interaction of cognition, emotion and behaviour. However, where the cognitive element of traditional CBT works by systematically challenging and changing the content of thoughts, ACT instead works to change one's relationship to thoughts by de-identifying with them, and thereby minimising their influence on behaviour.

The goal of ACT is to cultivate psychological flexibility, the ability to orient to the present moment with openness and awareness, and change or persist in behavior in accordance with one's values (Hayes et al., 2006). Psychological flexibility thereby alleviates the negatively reinforcing effect of experiential avoidance on behaviour. It is cultivated by helping individuals become aware of the counterproductive (*unworkable*) effect of their attempts to avoid or control unpleasant experiences on living a fulfilling life; developing

mindfulness through repeated practice to de-identify from thoughts (*cognitive defusion*) and open up to painful experience; and helping individuals clarify their values to inform their actions, guided by goal-setting. Values refer to what deeply matters to people; that is, what they aspire to stand for in life and the qualities they want to embody (Hayes et al., 2006). The twin processes of open awareness and value-based action are typically cultivated in tandem throughout therapy.

Metaphors are often used to demonstrate key ACT concepts, such as *Passengers on a bus.* In this metaphor, individuals' thoughts, emotions and urges are presented as passengers on a bus. When these are negative valenced, a natural response is to seek to reduce their intensity. Avoiding a feared but valued situation such as a party (e.g. reflecting a value of 'adventure') generally succeeds in reducing the intensity of painful internal experiences, providing immediate relief (Kent, 2000). However, this response may lead to unintended longer-term costs, including a narrowing of one's behavioral repertoire and disengagement from ultimately fulfilling activities (Ossman et al., 2006). Individuals are therefore supported to develop willingness to feel the normal discomfort associated with doing something new or challenging, and 'drive their bus' in a valued direction.

Taking its name from the maxim 'Accept what you can't change and commit to valued action' (Hayes et al., 2006), ACT is conceptually well-suited to people struggling with a visible difference. For many, both one's actual appearance and others' initial reactions are beyond their control, so experiential acceptance represents a pragmatic focus of intervention. ACT also circumvents a limitation in traditional cognitive therapy for this population, for whom thought-challenging may not be entirely suitable; for example, in those who have

'reality cognitions' such as "someone might stare at me", which may indeed reflect their lived experience. Unlike traditional CBT, ACT does not consider any thought or feeling as dysfunctional; rather, it posits a tendency towards cognitive fusion and experiential avoidance in response to the thought as problematic . ACT therefore does not directly target change in how individuals evaluate their appearance (valence), nor how cognitively salient appearance is to them. . Instead, people develop the skills and valued direction to hold appearance-related thoughts and negative self-evaluation lightly, diminishing their influence on behavior.

Value clarification is a key component of ACT, as values provide heartfelt motivation to stay with discomfort in the face of meaningful action. Values are used both to direct life goals and inform ad-hoc decisions. For example, if someone with a burns injury were to hold a value of connecting with family and friends, this may inform a goal of meeting a friend they haven't seen since before the injury. Equally, if they came across the same friend by chance, and they were invited for a drink, they could draw on the same value to accept the offer. In both instances, they would likely experience difficult thoughts and emotions about seeing their friend, and so could draw on mindfulness skills to lessen their impact. By encouraging people to follow their values, and by offering tools to tolerate the inevitable distress experienced alongside value-based action, ACT is firmly oriented toward living a meaningful life rather than simply reducing symptoms of distress. Therefore, for people with difficulties relating to a visible difference, ACT can help expand one's life far beyond appearance and its associated concerns.

To the authors' knowledge, only one published study has examined ACT processes in relation to visible difference. Dudek, Białaszek and Ostaszewski (2016) conducted a cross-

sectional survey of women affected by lipoedema, a chronic condition marked by progressive (visible) fat build-up in the lower parts of the body. They found that self-reported psychological flexibility, as measured by the Acceptance and Action Questionnaire version 2 (Bond et al., 2011), positively predicted quality of life. Although lipoedema often confers profound physical changes and so it may be assumed many participants experienced concerns about their appearance, the study did not measure degree of appearance concerns. It is therefore unclear how much participants' level of psychological flexibility related to their appearance-related internal experiences, compared to other difficulties associated with the condition, such as pain, and medical misdiagnosis and subsequent mistreatment.

Review of ACT for the Common Problem Areas

Clinicians report using ACT to help people with a variety of psychological problems associated with visible differences. A third of over 100 psychological practitioners who work with people with a visible difference across Europe report using ACT to support them (Harcourt et al.,2018). However, as no research other than Dudek et al's (2016) work has yet been published on ACT in this group, we will now summarize the wider literature on ACT in some of the common psychosocial problem areas for people with a visible difference. We will also introduce ACT-consistent therapeutic methods and considerations within each problem area.

ACT for Social Anxiety

From an ACT perspective, experiential avoidance is posited as the key mediator in the development and maintenance of social anxiety. In support, Kashdan et al. (2014) found experiential avoidance correlated with social anxiety symptoms in a group of participants

diagnosed with social anxiety disorder in social situations to a greater degree than undiagnosed controls. In a second study, they found that higher experiential avoidance during an experimentally manipulated intimate conversation precipitated social anxiety symptoms.

Following a series of promising single-group intervention studies on ACT for social anxiety disorder, two adequately-powered randomised controlled trials (RCTs) have been conducted. Kocovski, Fleming, Hawley, Huta, and Antony (2013) compared a 12-week ACT group intervention to group CBT and waitlist controls, finding clinically significant social anxiety reductions in around 40% of patients in both ACT and CBT groups. Experiential avoidance changed similarly in ACT and CBT groups, meaning it was not uniquely manipulated by the ACT protocol, though a lack of mediation analysis prevented clear conclusions. Craske et al. (2014) conducted a near-identically designed RCT, this time testing an individual programme therapy, and found similar results, maintained after 12 months. Niles et al (2014) subsequently performed a mediation analysis on Craske et al's data, and found that experiential avoidance was reduced through the course of both ACT and CBT interventions, but that the ACT condition conferred stronger decreases in experiential avoidance. Taken as a whole, the extant empirical research on the use of ACT for social anxiety suggests experiential avoidance is implicated in the development, maintenance and improvement in social anxiety, and ACT therefore represents a strong treatment option for this population.

As with traditional CBT, ACT protocols for social anxiety employ graded exposure to feared social situations (e.g. Craske et al., 2014). Importantly, though, the direct goal of exposure in ACT is to enable one to live a fulfilling, value-consistent life in the face of

uncomfortable internal experiences, rather than to desensitize to these experiences. Desensitization may well occur as a natural by-product of exposure, but focusing on it would reinforce experiential avoidance by teaching that something is only worth doing if it feels comfortable.

A key distinction between 'typical' social anxiety and that experienced by people with a visible difference also requires clarification. When people with a visible difference engage in graded exposure to feared social scenarios, there is a very real chance of receiving unsolicited attention. This needs to be acknowledged by an ACT practitioner, and emphasised as a manageable challenge associated with taking valued action. It is vital that individuals are cognisant of their guiding values, have the necessary mindfulness skills to manage any distress, and sufficient social skills to manage any awkward social interactions. Some may possess adequate social skills in approaching people as well as dealing with questions, comments and staring. For those who do not, though, social skills training needs to be integrated into ACT. In ACT terms, social skills training is a skill developed in the service of one's values.

ACT for Body Image Dissatisfaction

Psychological inflexibility and, more specifically, body image inflexibility (i.e. psychological inflexibility towards appearance-related cognitions and emotions) has been associated with body image dissatisfaction (BID) in the general population (Sandoz, Wilson, Merwin & Kellum, 2013). ACT is most concerned, however, with how behavioral consequences of BID may negatively impact the quality of individuals' lives. With this in mind, Webb (2015) reported that older adolescent girls with higher body image inflexibility

were less likely to take care of their bodies. Similarly, Mancuso (2016) found that body image inflexibility mediated the relationship between negative body evaluation, and both experiential avoidance and appearance-fixing (e.g. concealing perceived imperfections). This means those with greater body image flexibility were less likely to employ these harmful behavioral strategies.

How these coping strategies may be employed by people with a visible difference, however, requires consideration. Although Cash (2000) identified appearance-fixing tendencies such as body-concealment or applying extensive makeup as an unhelpful coping strategy, an ACT practitioner should be careful to decipher the *workability* of appearance concealment with a visibly different client. For example, an individual with vitiligo may only feel able to leave their house wearing extensive makeup, which is applied in set lighting conditions. Given the time and specific environment needed to apply the makeup, this may prevent them from going out on trips of value to them. To the extent that it hampers valued living, in this case makeup is proving unworkable to them. Alternatively, someone with vitiligo may wear skin camouflage because it enables them to go to social events that they would otherwise avoid. In this case makeup facilitates valued action and is at least in part workable. The need for individualised formulation is therefore paramount.

A small number of trials testing ACT for body image concerns in the general population have been conducted, mostly adopting one-day workshops. These studies found an ACT workshop caused favourable changes in quality of life in a group of obese adults (Lillis, Hayes, Bunting & Masuda 2009); preoccupation with BID and disordered eating in gay men with BID (Walloch, 2014); and experiential avoidance, body anxiety and

preoccupation with eating, weight and shape in a group of women with BID (Pearson, Follette & Hayes, 2012). Weineland, Arvidsson, Kakoulidis and Dahl (2012) also reported reduced BID and improved quality of life in bariatric patients following a two-session ACT intervention with internet-based support, compared to treatment as usual. How exactly these findings apply to people with a visible difference remains theoretical. It is nevertheless encouraging to see that such brief ACT interventions can loosen the grip of BID on people's lives.

Body dissatisfaction can also present in the form of a body dysmorphic disorder (BDD) diagnosis. BDD describes marked preoccupation with non-existent or slight physical defects, and repetitive behaviors such as mirror checking that result in significant distress or social impairment (American Psychiatric Association, 2013). The boundary between 'slight defect' and a visible difference remains subjective. For this reason research on visible difference often applies an inclusive participation criterion of self-identified visible difference (e.g. Williamson et al., 2015). Preoccupation with appearance is central to both groups, and both commonly experience social avoidance and intimacy difficulties. The historical tendency to treat BDD and visible difference-based body dissatisfaction as entirely separate presentations, both in clinical practice and research settings (Rumsey and Harcourt, 2004), may therefore overlook such similarities. Following the ACT model, we would also expect high experiential avoidance to characterise both groups. Indeed, Wilson, Wilhelm and Hartmann (2014) showed higher levels of experiential avoidance in a group of people diagnosed with BDD versus controls, building on Callaghan et al's (2012) correlational research that identified experiential avoidance as a predictor of BDD onset (though not

symptom severity). Research is still needed to compare experiential avoidance in people with visible differences who have appearance concerns to the general population.

ACT for Shame and Self-stigma

Numerous studies have tested ACT in addressing shame and self-stigma, across heterogeneous populations. Two RCTs found reduced shame following a one-day ACT intervention for people addicted to substances (Luoma et al., 2008; Luoma, Kohlenberg, Hayes & Fletcher, 2012). Self-stigma outcomes improved following a one-day workshop in an RCT of people with obesity (Lillis et al., 2009), after 6-10 ACT sessions in individuals concerned about their sexual orientation in a multiple baseline study (Yadavaia and Hayes, 2012), and following eight ACT sessions integrated with Compassion-Focused Therapy for people diagnosed with HIV in a single-group pilot study (Skinta, Lezama, Wells & Dilley, 2015; Gilbert, 2010).

Compassion-Focused Therapy in particular holds a burgeoning evidence-base for shame (Leaviss and Uttley, 2015) and, accordingly, the extent to which ACT cultivates self-compassion has become a subject of interest (e.g. Luoma and Platt, 2015). In a rare study to test self-compassion as a mediator of clinical change following ACT intervention, Vowles et al. (2014) established self-compassion as a strong predictor of improvement in chronic pain. Although the ACT model and therapeutic stance is oriented towards self-compassion, more explicit attention to cultivating self-compassion for people experiencing shame and self-stigma may bolster its effectiveness (Luoma and Platt, 2015).

When working with individuals who feel ashamed of their appearance, for example, a self-compassionate mirror exercise may be considered, whereby the individual is invited to view themselves in a mirror and describe their feature(s) with a mindful, self-compassionate stance (Luethcke, McDaniel & Becker, 2011). Similarly, self-compassionate 'body scan' meditations developed by Kristin Neff, Ph.D., show promising results on body satisfaction in young women (Toole and Craighead, 2016). This exercise involves systematically 'scanning' one's body from head to toe, attending to any difficult thoughts, feelings and sensations that arise with self-compassion.

ACT for Posttraumatic Stress

ACT researchers have sought to examine the role of experiential avoidance in posttraumatic stress symptomology, and findings suggest a direct link. Plumb, Orsillo and Luterek (2004) reported experiential avoidance predicted posttraumatic symptomology better than other measured psychological processes or the severity of the traumatic incident(s), a finding subsequently corroborated (Land, 2010). Most recently, Fiorillo, McLean, Pistorello, Hayes and Follette (2017) found a 6-week web-based ACT programme resulted in favourable changes to posttraumatic stress symptoms and psychological flexibility in a group of women with trauma-related problems.

ACT theory for trauma survivors may be applied to clients with a visible difference who experience posttraumatic stress, whether from incidents that caused injury, or because of repeated negative social experiences. McLean et al. (2015) argues that imaginal and in-vivo exposure, an evidence-based technique for posttraumatic stress, can be embedded into ACT. This can be done through the process of confronting traumatic memories, using mindfulness

skills to establish the required level of emotional regulation to process the specific 'sticking points' maintaining posttraumatic stress.

ACT and Health Conditions associated with a Visible Difference

As a transdiagnostic approach concerned with helping people to live a more fulfilling life, ACT is well placed to simultaneously support individuals to manage health conditions associated with any appearance concerns. The high-quality evidence for ACT in chronic pain, for example, is unrivalled by any other clinical area. Two RCTs have shown ACT to be comparably effective as the gold-standard treatment for pain, traditional CBT, with higher patient satisfaction with treatment in the ACT group (Vowles, Wetherell & Sorrell, 2009; Wetherell et al., 2011).

Implications for Clinical Practice

While a strong grasp of the common complexities experienced by this population is important, in the case of individual ACT, the need for collaborative case conceptualisation remains paramount. In doing so, individuals' difficulties should be understood through the lens of core ACT processes. Issues of initial engagement are also often likely. Clients experiencing social anxiety may struggle to attend appointments. Those who believe their psychological challenges will be resolved through medical intervention may enter therapy feeling ambivalent or even dismissive about the utility of psychological help. In this context, cultivating psychological flexibility at the client's pace and on their own terms is vital.

Very few people have access to specialist psychological support, so another challenge is making the ACT approach available to those who need it. Developing varied modes of

delivering ACT will help this effort, offered in accordance to need in a stepped care approach. This project could adopt the Centre for Appearance Research 5-tier framework for interventions for people with a visible difference (Jenkinson et al., 2009).This ranges from specialist-led individual psychological intervention (fifth tier), to health professional-facilitated support (third tier), and self-help interventions (second tier). The cited research suggests ACT can be effectively delivered in individual, group and self-help formats, each of which possesses different strengths. Individual therapy allows for tailored intervention and exploration of content individuals may be unwilling to share within a group; groups evoke shared experience; and self-help interventions provide maximal access for those who struggle to engage in face-to-face interventions (Jenkinson, 2012). To the authors' knowledge neither an ACT-based online programme nor a group ACT protocol for this population have yet been tested. Self-help and online interventions exist for psychosocial challenges relating to visible difference (e.g. the CBT-based Face IT intervention; Bessell, Clarke, Harcourt, Moss & Rumsey, 2010) and, taken together, present preliminary effectiveness (Muftin and Thompson, 2013). Given the range of challenges this population faces, though, such an intervention would need to offer a wide range of elective components such as those focusing on social skills training, managing a health condition, or living with teasing or bullying.

Future Directions for Research

Research on ACT lags behind the clinical reality in appearance concerns related to visible difference. Despite many clinicians reporting using ACT to treat patients with an altered appearance, no scientific articles have yet been published on the topic. ACT research

in adjacent fields such as social anxiety and body dissatisfaction provide some insight into its applicability for the common difficulties experienced by people with a different appearance. Yet research is needed with this population to truly assess its utility.

Visible difference presents challenges in conducting large-scale, high-quality research. There are very few specialist psychological services dedicated to those with appearance concerns relating to a visible difference, let alone those specifically adopting an ACT approach. In countries where budgets are constricted, service pressures continue to mount and waiting lists lengthen. Within this context, recruiting sufficiently large samples remains challenging. A multifaceted research programme adopting a range of methodologies can help here. Case studies provide rich idiographic detail that can aid clinicians working with similar client groups and stimulate research questions. Qualitative interviews with those receiving therapy offer the patient perspective including around the important issue of treatment acceptability. Clearly, though, pilot and eventually full-scale RCTs are needed to fully assess ACT's effectiveness for this population.

In carrying out ACT intervention trials, theory-consistent and precise outcome measures are required to test the underlying mechanisms of clinical change. The Acceptance and Action Questionnaire version 2 (Hayes et al., 2006) provides a validated measure of global psychological flexibility, but Callaghan, Sandoz, Darrow and Feeney's (2015) Body Image Psychological Inflexibility Scale (2015) can more accurately assess the appearance-related processes of experiential avoidance and cognitive fusion. Both measures will be needed to delineate general from appearance-specific psychological flexibility/inflexibility processes.

Conclusion

This article offers a rationale for the use of ACT to help people with a different appearance struggling with appearance-related distress. We have summarized the ACT literature on clinical areas known to affect a sub-section of those with a visible difference. Research on social anxiety, body dissatisfaction, shame and self-stigma, and posttraumatic stress, reiterates the centrality of experiential avoidance in causing and maintaining distress. By cultivating psychological flexibility, ACT can offer a relevant and innovative approach to help people with a visible difference live fulfilling lives. However, robust research is needed to add weight to this claim.

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References

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: American Psychiatric Publishing.

Appearance Research Collaboration. (2014). Appendix. In A Clarke, A.R. Thompson, E. Jenkinson, et al. *CBT for Appearance Anxiety: Psychosocial Interventions for Anxiety due to Visible Difference.* (pp. 194-271) Oxford: Wiley.

Bessell, A., & Moss, T. P. (2007). Evaluating the effectiveness of psychosocial interventions for individuals with visible differences: a systematic review of the empirical literature. *Body Image*, *4*(3), 227-238. DOI: 10.1016/j.bodyim.2007.04.005.

Bessell, A., Clarke, A., Harcourt, D., Moss, T. P., & Rumsey, N. (2010). Incorporating user perspectives in the design of an online intervention tool for people with visible differences: Face IT. *Behavioral and Cognitive psychotherapy*, *38*(5), 577-596. DOI: 10.1017/S1352465810000305.

Bond, F. W., Hayes, S. C., Baer, R. A., Carpenter, K. M., Guenole, N., Orcutt, H. K., ... & Zettle, R. D. (2011). Preliminary psychometric properties of the Acceptance and Action Questionnaire–II: A revised measure of psychological inflexibility and experiential avoidance. *Behavior Therapy*, *42*(4), 676-688. DOI: 10.1016/j.beth.2011.03.007.

Callaghan, G. M., Duenas, J. A., Nadeau, S. E., Darrow, S. M., Van der Merwe, J., & Misko, J. (2012). An empirical model of body image disturbance using behavioral principles found in Functional Analytic Psychotherapy and Acceptance and Commitment

Therapy. *International Journal of Behavioral Consultation and Therapy*, *7*(2-3), 16. DOI: 10.1037/h0100932.

Callaghan, G. M., Sandoz, E. K., Darrow, S. M., & Feeney, T. K. (2015). The body image psychological inflexibility scale: development and psychometric properties. *Psychiatry Research*, *226*(1), 45-52. DOI: 10.1016/j.psychres.2014.11.039.

Changing Faces (2017). *Disfigurement in the UK Report May 2017*. London, UK: Changing Faces.

Craske, M. G., Niles, A. N., Burklund, L. J., Wolitzky-Taylor, K. B., Vilardaga, J. C. P., Arch, J. J., ... & Lieberman, M. D. (2014). Randomized controlled trial of cognitive behavioral therapy and acceptance and commitment therapy for social phobia: outcomes and moderators. *Journal of Consulting and Clinical Psychology*, *82*(6), 1034-1048. DOI: 10.1037/a0037212.

Dudek, J. E., Białaszek, W., & Ostaszewski, P. (2016). Quality of life in women with lipoedema: a contextual behavioral approach. *Quality of Life Research*, *25*(2), 401-408. DOI: 0.1007/s11136-015-1080-x.

Egan, K., Harcourt, D., Rumsey, N., & Appearance Research Collaboration. (2011). A qualitative study of the experiences of people who identify themselves as having adjusted positively to a visible difference. *Journal of Health Psychology*, *16*(5), 739-749. DOI: 10.1177/1359105310390246.

Fiorillo, D., McLean, C., Pistorello, J., Hayes, S. C., & Follette, V. M. (2017). Evaluation of a web-based acceptance and commitment therapy program for women with trauma-

related problems: A pilot study. *Journal of Contextual Behavioral Science*, *6*(1), 104-113. DOI: 10.1016/j.jcbs.2016.11.003.

Gilbert P (2010) An introduction to compassion focused therapy in cognitive behavior therapy. *International Journal of Cognitive Therapy* 3(2): 97-112. DOI: 10.1521/ijct.2010.3.2.97.

Gilboa, D., Friedman, M., & Tsur, H. (1994). The burn as a continuous traumatic stress: implications for emotional treatment during hospitalization. *Journal of Burn Care & Research*, *15*(1), 86-94.

Hamed, K., Giles, N., Anderson, J., Phillips, J. K., Dawson, L. F., Drummond, P., ... & Fear, M. W. (2011). Changes in cutaneous innervation in patients with chronic pain after burns. *Burns*, *37*(4), 631-637. DOI: 10.1016/j.burns.2010.11.010.

Harcourt, D., Hamlet, C., Billaud Feragen, K., Garcia-Lopez, L.-J., Masnari, O., Mendes, J., Nobile, F., Okkerse, J., Pittermann, A., Spillekom-van Koulili, S., Stock, N. M. and Williamson, H. (2018). The provision of specialist psychosocial support for people with visible differences: A European survey. *Body Image*, *25*, 35-39. DOI: 10.1016/j.bodyim.2018.02.001Harris, D. L., & Carr, A. T. (2001). Prevalence of concern about physical appearance in the general population. *British Journal of Plastic Surgery*, *54*(3), 223-226. DOI: 10.1054/bjps.2001.3550.

Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and commitment therapy: Model, processes and outcomes. *Behavior Research and Therapy*, *44*(1), 1-25.DOI: 10.1016/j.brat.2005.06.006.

Hooper, N., & Larsson, A. (2015). *The research journey of acceptance and commitment therapy (ACT)*. Basingstoke: Palgrave Macmillan.

Houston, V., & Bull, R. (1994). Do people avoid sitting next to someone who is facially disfigured?. *European Journal of Social Psychology, 24*(2), 279-284. DOI: 10.1002/ejsp.2420240205.

Jenkinson, E. (2012). Therapeutic Interventions: Evidence of Effectiveness. In N. Rumsey & D. Harcourt (Eds.), *The Oxford Handbook of the Psychology of Appearance*. (pp. 551-567). Oxford: Oxford University Press.

Jenkinson, E., Bessell, A, Williamson, H., et al. (2009) CAR Framework for intervention delivery. Centre for Appearance Research, Bristol.

Kashdan, T. B., Goodman, F. R., Machell, K. A., Kleiman, E. M., Monfort, S. S., Ciarrochi, J., & Nezlek, J. B. (2014). A contextual approach to experiential avoidance and social anxiety: Evidence from an experimental interaction and daily interactions of people with social anxiety disorder. *Emotion, 14*(4), 769-781. DOI: 10.1037/a0035935.

Kent, G. (2000). Understanding the experiences of people with disfigurements: an integration of four models of social and psychological functioning. *Psychology, Health & Medicine*, *5*(2), 117-129. DOI: 10.1080/713690187.

Kleve, L., & Robinson, E. (1999). A survey of psychological need amongst adult burn-injured patients. *Burns*, *25*(7), 575-579. DOI: 10.1016/S0305-4179(99)00070-4.

Kocovski, N. L., Fleming, J. E., Hawley, L. L., Huta, V., & Antony, M. M. (2013). Mindfulness and acceptance-based group therapy versus traditional cognitive

behavioral group therapy for social anxiety disorder: A randomized controlled trial. *Behavior Research and Therapy*, *51*(12), 889-898.DOI: 10.1016/j.brat.2013.10.007.

Land, K. (2010). Examining the role of experiential avoidance specific to posttrauma symptoms. (Unpublished Doctoral Dissertation: Alliant International University).

Leaviss, J., & Uttley, L. (2015). Psychotherapeutic benefits of compassion-focused therapy: An early systematic review. *Psychological Medicine*, *45*(5), 927-945. DOI: 10.1017/S0033291714002141.

Lillis, J., Hayes, S. C., Bunting, K., & Masuda, A. (2009). Teaching acceptance and mindfulness to improve the lives of the obese: A preliminary test of a theoretical model. *Annals of Behavioral Medicine*, *37*(1), 58-69. DOI: 10.1007/s12160-009-9083-x.

Liossi, C. (2003). *Appearance related concerns across the general and clinical populations* (Unpublished Doctoral dissertation, City University London).

Luethcke, C. A., McDaniel, L., & Becker, C. B. (2011). A comparison of mindfulness, nonjudgmental, and cognitive dissonance-based approaches to mirror exposure. *Body Image*, *8*(3), 251-258. DOI: 10.1016/j.bodyim.2011.03.006.

Luoma, J. B., Kohlenberg, B. S., Hayes, S. C., Bunting, K., & Rye, A. K. (2008). Reducing self-stigma in substance abuse through acceptance and commitment therapy: Model, manual development, and pilot outcomes. *Addiction Research & Theory*, *16*(2), 149-165. DOI: 10.1080/16066350701850295.

Luoma, J. B., Kohlenberg, B. S., Hayes, S. C., & Fletcher, L. (2012). Slow and steady wins the race: a randomized clinical trial of acceptance and commitment therapy targeting shame in substance use disorders. *Journal of Consulting and Clinical Psychology*, *80*(1), 43. DOI: 10.1037/a0026070.

Luoma, J. B., & Platt, M. G. (2015). Shame, self-criticism, self-stigma, and compassion in Acceptance and Commitment Therapy. *Current Opinion in Psychology*, *2*, 97-101. DOI: 10.1016/j.copsyc.2014.12.016.

Magin, P., Adams, J., Heading, G., & Pond, C. (2009). Patients with skin disease and their relationships with their doctors: a qualitative study of patients with acne, psoriasis and eczema. *Medical Journal of Australia, 190*(2).

Mancuso, S. G. (2016). Body image inflexibility mediates the relationship between body image evaluation and maladaptive body image coping strategies. *Body Image*, *16*, 28-31. DOI: 10.1016/j.bodyim.2015.10.003.

McLean, C., & Follette, V. M. (2016). Acceptance and commitment therapy as a nonpathologizing intervention approach for survivors of trauma. *Journal of Trauma & Dissociation*, *17*(2), 138-150. DOI: 10.1080/15299732.2016.1103111.

Moss, T. P., & Rosser, B. A. (2012). The moderated relationship of appearance valence on appearance self consciousness: development and testing of new measures of appearance schema components. *PloS one*, *7*(11), e50605. DOI: 10.1371/journal.pone.0050605.

Muftin, Z., & Thompson, A. R. (2013). A systematic review of self-help for disfigurement: Effectiveness, usability, and acceptability. *Body Image, 10*(4), 442-450. DOI: 10.1016/j.bodyim.2013.07.005.

Niles, A. N., Burklund, L. J., Arch, J. J., Lieberman, M. D., Saxbe, D., & Craske, M. G. (2014). Cognitive mediators of treatment for social anxiety disorder: comparing acceptance and commitment therapy and cognitive-behavioral therapy. *Behavior Therapy, 45*(5), 664-677. DOI: 10.1016/j.beth.2014.04.006.

Norman, A., & Moss, T. P. (2015). Psychosocial interventions for adults with visible differences: a systematic review. *Peer Journal, 3,* e870. DOI: 10.7717/peerj.870.

Pearson, A. N., Follette, V. M., & Hayes, S. C. (2012). A pilot study of acceptance and commitment therapy as a workshop intervention for body dissatisfaction and disordered eating attitudes. *Cognitive and Behavioral Practice, 19*(1), 181-197. DOI: 10.1016/j.cbpra.2011.03.001.

Plumb, J. C., Orsillo, S. M., & Luterek, J. A. (2004). A preliminary test of the role of experiential avoidance in post-event functioning. *Journal of Behavior Therapy and Experimental Psychiatry, 35*(3), 245-257. DOI: 10.1016/j.jbtep.2004.04.011.

Rumsey, N., & Harcourt, D. (2004). Body image and disfigurement: issues and interventions. *Body Image, 1*(1), 83-97. DOI: 10.1016/S1740-1445(03)00005-6.

Rumsey, N. and Harcourt, D. (2012). Who is affected by appearance concerns, in what way, and why?: Summary and synthesis. In N. Rumsey and D. Harcourt (Eds.), *The*

Oxford Handbook of the Psychology of Appearance. (pp. 439-449). Oxford: Oxford University Press.

Ryan, S., Oaten, M., Stevenson, R. J., & Case, T. I. (2012). Facial disfigurement is treated like an infectious disease. *Evolution and Human Behavior*, *33*(6), 639-646. DOI: 10.1016/j.evolhumbehav.2012.04.001.

Sandoz, E. K., Wilson, K. G., Merwin, R. M., & Kellum, K. K. (2013). Assessment of body image flexibility: the body image-acceptance and action questionnaire. *Journal of Contextual Behavioral Science*, *2*(1), 39-48. DOI: 10.1016/j.jcbs.2013.03.002.

Skinta, M. D., Lezama, M., Wells, G., & Dilley, J. W. (2015). Acceptance and compassion-based group therapy to reduce HIV stigma. *Cognitive and Behavioral Practice*, *22*(4), 481-490. DOI: 10.1016/j.cbpra.2014.05.006

Stevenage, S. V., & McKay, Y. (1999). Model applicants: The effect of facial appearance on recruitment decisions. *British Journal of Psychology*, *90*(2), 221-234. DOI: 10.1348/000712699161369.

Thompson, A., & Kent, G. (2001). Adjusting to disfigurement: processes involved in dealing with being visibly different. *Clinical Psychology Review*, *21*(5), 663-682. DOI: 10.1016/S0272-7358(00)00056-8.

Thompson, A. R., Kent, G., & Smith, J. A. (2002). Living with vitiligo: dealing with difference. *British Journal of Health Psychology*, *7*(2), 213-225. DOI: 10.1348/135910702169457.

Toole, A. M., & Craighead, L. W. (2016). Brief self-compassion meditation training for body image distress in young adult women. *Body Image, 19*, 104-112. DOI: 10.1016/j.bodyim.2016.09.001.

Van der Kolk, B.A. (2002). The assessment and treatment of complex PTSD. In R. Yehuda (Ed.) *Treating trauma survivors with PTSD*. (pp. 127-156). New York: American Psychological Association.

Vowles, K. E., Wetherell, J. L., & Sorrell, J. T. (2009). Targeting acceptance, mindfulness, and values-based action in chronic pain: findings of two preliminary trials of an outpatient group-based intervention. *Cognitive and Behavioral Practice, 16*(1), 49-58. DOI: 10.1016/j.cbpra.2008.08.001.

Vowles, K. E., Witkiewitz, K., Sowden, G., & Ashworth, J. (2014). Acceptance and commitment therapy for chronic pain: evidence of mediation and clinically significant change following an abbreviated interdisciplinary program of rehabilitation. *The Journal of Pain*, *15*(1), 101-113. DOI: 10.1016/j.jpain.2013.10.002.

Walloch, J. (2014). Acceptance and Commitment Therapy for the Treatment of Body Image Dissatisfaction and Maladaptive Eating Attitudes and Behaviors in Gay Men: A Pilot Study. (Unpublished Doctoral Dissertation, Alliant International University).

Webb, J. B. (2015). Body image flexibility contributes to explaining the link between body dissatisfaction and body appreciation in White college-bound females. *Journal of Contextual Behavioral Science*, *4*(3), 176-183. DOI: 10.1016/j.jcbs.2015.06.001.

Weineland, S., Arvidsson, D., Kakoulidis, T. P., & Dahl, J. (2012). Acceptance and commitment therapy for bariatric surgery patients, a pilot RCT. *Obesity Research & Clinical Practice, 6*(1), e21-e30. DOI: 10.1016/j.orcp.2011.04.004

Wetherell, J. L., Afari, N., Rutledge, T., Sorrell, J. T., Stoddard, J. A., Petkus, A. J., ... & Atkinson, J. H. (2011). A randomized, controlled trial of acceptance and commitment therapy and cognitive-behavioral therapy for chronic pain. *Pain*, *152*(9), 2098-2107. DOI: 10.1016/j.pain.2011.05.016.

Williamson, H., Griffiths, C., & Harcourt, D. (2015). Developing young person's Face IT: Online psychosocial support for adolescents struggling with conditions or injuries affecting their appearance. *Health Psychology Open*, *2*(2). DOI: 10.1177/2055102915619092.

Wilson, A. C., Wilhelm, S., & Hartmann, A. S. (2014). Experiential avoidance in body dysmorphic disorder. *Body Image, 11*(4), 380-383. DOI: 10.1016/j.bodyim.2014.06.006.

Wisely, J. and Gaskell, S. (2012). Trauma- with special reference to burn injury. In N. Rumsey and D. Harcourt (Eds.) *The Oxford Handbook of the Psychology of Appearance*. (pp. 372-398). Oxford: Oxford University Press.

Yadavaia, J. E., & Hayes, S. C. (2012). Acceptance and commitment therapy for self-stigma around sexual orientation: A multiple baseline evaluation. *Cognitive and Behavioral Practice, 19*(4), 545-559. DOI: 10.1016/j.cbpra.2011.09.002.

Young, M. (2005). The psychological and social burdens of psoriasis. *Dermatology Nursing*, *17*(1), 15.