An Internet-based Intervention for Trichotillomania and Excoriation Disorder: Preliminary Results

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Highlights

- Currently available data based on 868 participants shows that TrichStop and SkinPick are effective ways of treating trichotillomania and excoriation disorder, respectively.
- Success of the program correlates with the length of participation in the program.
- High recommendation rates indicate overall high rates of client satisfaction.

Abstract

Body-focused repetitive behaviors (BFRBs) are common behavioral problems with a lifetime prevalence of up to 5.5%. Nonetheless, they remain under-researched, and those who struggle with BFRBs lack access to mental healthcare provided by knoweldgeable professionals. All existing data point to psychotherapy as the most effective form of treatment. This paper presents the results of an internal study that assesed two programs designed to treat trichotillomania (TrichStop) and excoriation disorder (SkinPick) by assessing pre- and post-treatment symptom intensity. This preliminary study, which is based on a sample of 868 participants, indicates that these programs significantly reduce the frequency of skin picking and hair pulling.

Introduction

Body-focused repetitive behaviors (known as BFRBs) are psychological problems that include dysfunctional thoughts, feelings and behavioral patterns that have a strong habitual pattern but are not limited to it. Before being recognized as a distinct class of problems, they were often considered mere nervous habits (Houghton et al., 2018; Teng et al, 2002).

BFRBs include behaviors characterized by removing or damaging parts of the body such as nails, hair, skin, and mucosa. They include habits like nail-biting, hair pulling, skin picking, teeth grinding, check/lip biting, and similar behaviors (Torales et al., 2020). These behaviors can be more

extreme forms of common habits that do not affect daily functioning or emotional well-being of people (Teng et al., 2002). More radical forms of these habits may lead to severe impairment in social functioning and emotional well-being and can cause significant distress (Houghton et al 2018; Torales et al., 2020).

DSM-V defines trichotillomania (TTM) as recurrent hair pulling resulting in hair loss. Diagnostic criteria indicate that affected individuals repeatedly attempt to decrease or stop pulling and that pulling must result in significant distress or functional impairment (Himle et al., 2018). Skin picking or excoriation disorder (ED) is defined as recurrent skin picking, which may lead to self-induced cutaneous lesions and significant distress or functional impairment. The affected patient is aware of their self-destructive behavior but is unable to give up this habit, despite having made repeated attempts.

Research on skin picking, as a form of BFRBs, shows that its lifetime prevalence in the USA ranges from 1.4 to 5.5% (Kwon et al., 2020). For trichotillomania, or hair pulling disorder, prevalence ranges from 1.4% to 8.8% when counting people who have any kind of hair pulling habits, including playing with hair (Thomson et al., 2022). Severe forms of trichotillomania can lead to hair loss, while skin picking can cause severe infections and other skin problems (scars, flakes, acne, etc.). Women are at higher risk for both TTM and ED (Kwon et al., 2020; Thomson et al., 2022), and both disorders have similar developmental paths – onset before age 10 with a second peak during adolescence/young adulthood, and a third peak between age 30 and 45 (Grant, 2019; Torales et al., 2020).

Both TTM and ED are shaped by both biological and socio-psychological factors. On the one hand, research has demonstrated the involvement of neurobiological, hormonal and hereditary factors in the development of TTM and ED (Grant, 2019; Torales et al., 2020). On the other hand, TTM and ED are connected to increased anxiety levels, impairment in emotion regulation, depressive mood, reaction to stressful situations or experiences, and other psychological phenomena such as obsessive-compulsive disorder, ADHD, autism spectrum disorder, and PTSD (Grant, 2019; Kwon et al., 2020; Torales et al., 2020).

Psychotherapy for both TTM and ED includes various treatment plans based on cognitive-behavioral therapy, including dialectical behavior therapy, acceptance and commitment therapy (ACT), exposure therapy, stimulus control and habit reversal therapy (HRT; Grant, 2019; Skurya et al., 2020). HRT is one of the most studied treatments for BFRBs (Skurya et al., 2020), with large effect size when compared to control conditions (Grant, 2019). Recently, different internet-based therapy approaches for BFRBs have been developed, and the empirical evidence shows that internet-based treatments, like HRT, ACT and mindfulness, can be as effective as traditional forms of face-to-face therapy (Asplund et al., 2022).

Skinpick and Trichstop programs

Based on the research briefly outlined above, our programs for hair pulling and skin picking – TrichStop and SkinPick – combine habit reversal training (HRT) with acceptance and commitment therapy (ACT) delivered online with therapist support.

The programs begin with HRT, focusing on practical behavioral modification, consequently reducing picking/pulling and giving clients more control over their behaviors. The ACT component of the programs allows the clients to learn how to relate to their private experiences in a healthier way through mindfulness and "defusion" techniques, thereby reducing the urge to pick/pull.

The programs assessed here contain 8 core sessions and the capacity to extend them with additional sessions in order to deepen insight and provide more practical skills.

Method

We analyzed data from all the clients in both programs who had completed at least one session (538 in SkinPick and 330 in TrichStop). The data comprised the clients' ratings, before and after treatment, of items taken from validated scales that assess the severity of trichotillomania and skin-picking symptoms. These items inquired about the frequency, intensity and compulsivity associated with the symptoms, as well as about their negative impact on the client mental, social, and physical well-being. We also asked clients whether they would recommend the program to others.

Results

Table 1 shows descriptive data of assessment scores for clients in both Trichstop and Skinpick.

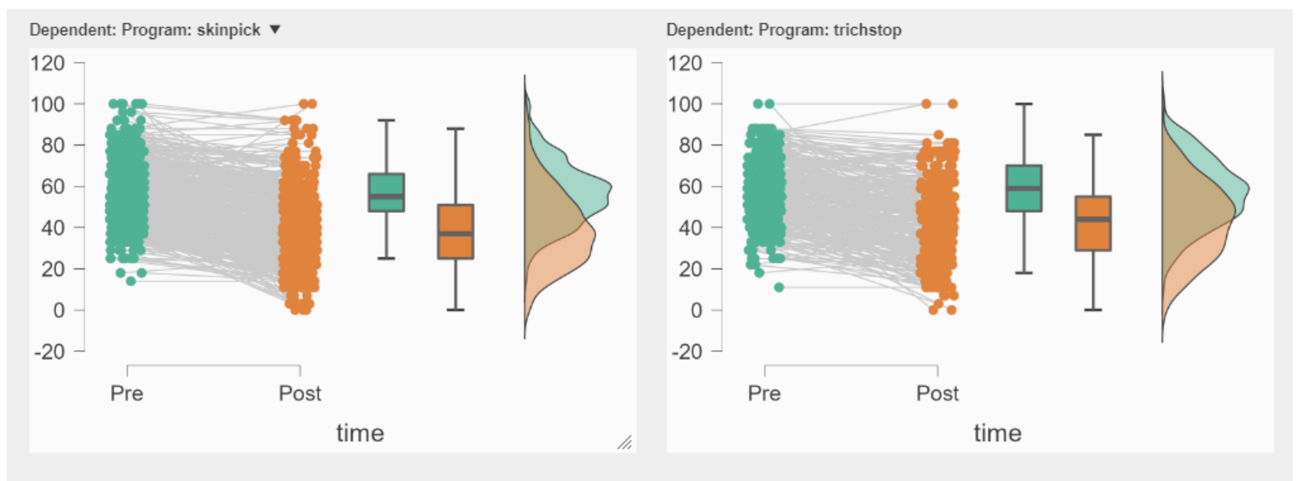
Table 1. *Pre- and post-treatment assessment scores in Skinpick and Trichstop programs*

		N	**Mean**	**SD**	**SE**	**Coefficient of Variation**
Pre	skinpick	538	56.734	15.217	0.656	0.268
	trichstop	330	57.230	16.013	0.881	0.280
Post	skinpick	538	39.742	18.190	0.784	0.458
	trichstop	330	43.391	18.546	1.021	0.427

As seen in Table 1, there was a large reduction between pre- and post-treatment scores in both programs. A statistical analysis (repeated-measures ANOVA) showed that these improvements were highly significant.

In the following plot diagram (Picture 1) we can see the distribution of scores pre- and post-treatment in Skinpick and Trichstop programs.

Picture 1. *Rain cloud plots: Difference in assessment scores pre-post treatment for Skinpick and Trichstop programs*



Importantly, success in the program was significantly correlated with the number of sessions taken by the clients (r = .39), so that the more sessions a client undertook, the more they benefited from the programs. At the end of the programs, clients are asked whether they would recommend the program to others. Below, we see the distribution of their responses, which indicates that nearly three quarters of them would endorse the programs. Notably, among the 113 participants who completed at least 8 sessions, the endorsement rate exceeded 90%.

Table 5. *Would you recommend our program?*

	recommend?		
Program	No	Yes	Total
skinpick	77	209	286
trichstop	43	112	155
Total	120	321	441

Discussion

Body-focused repetitive behaviors are a common but underdiagnosed problem in the general population, even though a significant proportion of them, including nail-biting, skin picking, hair pulling, and cheek biting, can progress into severe clinical problems. Studies show that HRT together with other approaches, particularly those that are based on cognitive-behavioral interventions, are highly effective in treating trichotillomania and skin picking disorder.

In the past couple of years, internet-based therapy has been developing rapidly, offering easy access, frequently at lower cost than therapy and other in-person treatment options. TrichStop and SkinPick are among the first solutions of this kind to appear on the market.

Drawing on available empirical evidence, Trichstop and Skinpick, were developed as internet-based interventions with therapist assistance. The results presented here show that both programs are effective in reducing symptoms, and that the more sessions our clients undertake in these programs, the more effective the treatment will be.

In sum, we now have evidence that both Skinpick and Trichstop are effective treatments for excoriation disorder and hair pulling, as well as for hair pulling disorder and habits. In addition, clients who have completed additional sessions beyond the core 8 sessions have experienced greater symptom reduction.