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From Childhood to Adulthood: Uncovering the Roots, Impact and Healing Way of Skin Picking Disorder

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Abstract:

Skin Picking Disorder (SPD) is a mental disorder which can lead to skin lesion, abnormal emotion and other negative effects. Nowadays, SPD becomes common, but there are still research gaps and controversies about its etiology and treatment. Based on a review of researches and case studies collected, the present study analyzes the impact of childhood experiences on SPD, the influence on patients, and treatment methods. The findings of this study suggest that childhood abuse may contribute to SPD, especially emotional abuse, such as parental neglect. SPD can affect many aspects of a patient's life, and it can leave them unable to make peace with their distress. Finally, the two mainstream approaches to treating SPD are cognitive behaviour therapy (CBT) and drugs therapy. The purpose of this article is to provide a deeper understanding of the diagnosis and treatment of SPD, also to provide directions for preventive measures and future research.

Keywords: Skin Picking Disorder, childhood experience, emotion regulation, Cognitive-Behaviour Therapy, fluoxetine

1. Introduction

Skin Picking Disorder (SPD), also called excoriation disorder, is considered an Obsessive-Compulsive Related Disorder characterized by a recurring and compulsive urge to pick one's own skin. This skin picking behaviour often results in skin lesions and significant distress or impairment in academic, social, leisure, or other important functional areas. At the same time, to be diagnosed with SPD, the skin picking behaviour cannot be attributed to the physiological effects of any substance (e.g., cocaine) or other medical condition (e.g., dermatitis). In addition, the skin picking behaviour cannot be better explained by symptoms of other mental disorders. The prevalence of SPD is between 1.4% and 5.4%, with more than half of the patients being women [1].

Although SPD has been existed for a long period, it has been studied for less than four decades. The etiology of SPD is complex and has not been clearly defined, but childhood experience is considered to be an important factor, especially the individuals' perception of parenting and childhood abuse history. SPD has a great impact on patients, whether teenagers or adults. It can impair the emotional regulation ability and executive function of patients. There is currently no specific recommended treatment for SPD. Studies have shown that cognitive behaviour therapy (CBT), especially Habit Reversal Therapy (HR) aimed at modifying bad habits, is effective for this disorder. A study that combined open-label design and double-blind design also demonstrated some benefit of drug therapy using fluoxetine in the treatment of SPD.

This paper introduces and discusses the influence of childhood experience on SPD, the disorder's impact on patients, and the treatment of SPD with CBT and fluoxetine. This paper provides a comprehensive perspective and is very meaningful for clinical practice and patient care.

2. Etiology: Childhood Shadows

The etiology of SPD is complex and unclear currently. This article will elaborate the influence of childhood experience on SPD.

Researchers recruited 75 adults and asked them to complete two self-report scales. The scale for detecting skin picking behaviour is designed to appraise the impulse, duration, and related consequences of skin picking of the subjects. While another scale can examine the subjects' perception of parenting in childhood, and the items can be separated into two areas: Parents' Caring and Protection. Among the subjects, about 97% were women, approximately 89% were White Caucasian, and most of them had college education or higher. Those who were not currently

diagnosed with SPD were the control group. The researchers ran an Independent Sample T-Test on the results and compare them with those normative data.

They found that these subjects had moderate SPD severity. Moreover, when compared with the control group, individuals with SPD got lower scores in Parents' Caring, including Maternal Care and Paternal Care. Additionally, in dimensions of Parents' Protection, they got lower scores in Paternal Protection and higher scores in Maternal Protection, which means that the subjects lacked care from their parents, and are over-protected by their mothers. The results suggested that these subjects' needs for care might not have been responded to by their parents when they were children, at the same time, maternal over-protection caused them to fail to establish appropriate independence.

However, the scale measuring parental bonding was based on subjects' memory of childhood experiences, in another word, when subjects filled out the scale, they needed to recall and perceive the way their parents raised them in childhood while reading and scoring the questions. Autobiographical memory always has inaccuracies, which has a certain negative impact on the research results. In addition, the subjects were almost all women, and most of them are White Caucasian, so it was limited in ethnic and gender diversity. Furthermore, the results of research may have difficulty generalizing to the larger and more diverse groups with SPD in the community [2].

Besides, in another previous study with larger sample, 325 patients with SPD and another 325 healthy controls completed scales which examined the severity and impairment of their skin picking, as well as their childhood trauma history up to age 18, including sexual abuse, physical abuse and neglect, along with emotional abuse and neglect, respectively. The researchers analyzed and compared the scale results of the patients with those of the healthy controls using ANOVA and Chi-Square Test. Moreover, given confounding factors like psychological distress, ANCOVA and Logistic Regressions were also used.

Finally, the results showed that individuals with SPD scored significantly higher than healthy controls, especially in items of Emotional Abuse. So it can be suggested that individuals with SPD were more likely to have experienced childhood abuse, including physical abuse, sexual abuse, emotional abuse and neglect.

However, the study has certain limitations in that it is based entirely on self-reporting, and the lack of expert interviews may lead to biased assessment results. It is because that some patients may not be able to identify whether they have SPD, or they may do report that they have SPD but the picking behaviour was a result of another medical condition or mental disorders like Body Dysmorphic Disorder. These conditions will result in false positive cases and affect the final research results. Besides, as the study of Valle et al., this research had so many female subjects that it had limitation in generalizability [3]. Although previous research reported that 55% of the patients with SPD were women, the excessive proportion of women in the two researches need to be concerned [4].

The case study approach was also used to study SPD. One case reported the condition of a 26-year-old Turkish woman with SPD. About 3 years ago, she started intermittently picking her skin, and after 1 year, her picking behaviour became a daily routine. After conducting interviews, researchers learned about her childhood history. When she was a child, her father suffered an accident and lost his job, followed by family pressure, especially in terms of financial. Since then, the patient's life has been surrounded by domestic violence, first by emotional abuse. About the emotional abuse, she said her needs and complaints during the period of childhood and adolescence were neglected by her parents. The patients also suffered with repeated physical abuse from her parents. The continued psychological and physical abuse of her family led to her dissatisfaction and angry attitudes towards her parents. The patient told the researchers that she often felt depressed emotions, such as sadness and helplessness, and that she had also experienced chronic boredom and loneliness since adolescence. The build-up of these negative emotions may have contributed to her skin picking. In addition, the patient admitted that skin picking behaviour could bring her a sense of instant relief and enjoyment. However, the skin lesions from skin picking and the inability to stop the behaviour made her restless, guilty and anxious [5]. In this case, the patient's childhood experience is consistent with the conclusion of the research of Valle et al., that SPD patients are more likely to lack parental care in childhood, and with the conclusion of Spitzer et al., that SPD patients are more likely to experience childhood abuse, including physical abuse, emotional abuse, and emotional neglect.

This article believe that this case is valid evidence of the above two experiments, indicating that the environmental causes of SPD may be highly correlated with patients' negative childhood experiences. However, both studies were cross-sectional studies, and further research is needed to explore the causal relationship between childhood exposure and SPD. For example, longitudinal study is a choice, because studying the same group of subjects over a long period can allow researchers to observe a more complete development of SPD from childhood to adulthood.

3. Influence

As a mental disorder, SPD brings distress and functional impairment to patients. This article will discuss the emotional impact of SPD on adolescents and adults respectively.

One study recruited 96 adolescents with SPD and 90 healthy controls. These subjects were asked to finish 3 scales. Among them, one examiner-rating scale is designed to evaluate subjects' executive functions, including Behavioral Regulation and Meta-cognition. In addition, the 2 self-report scales can measure subjects' ability to regulate their emotion and evaluate subjects' impulsivity from three aspects, including Attentional, Motor and Non-planing Impulsiveness. Chi-Squared Test, Kolmogorov-Smirnov Test and Independent Sample T-test were implemented to analyse the statistical data.

The scores of Strategies, Impulsivity and Awareness of SPD patients were higher than those of healthy controls. Additionally, individuals with SPD got significant higher score than healthy controls, especially in Inhibition, Planning Organization and Emotional Control. Moreover, the SPD group also generally scored higher than the control group in terms of Non-planning Impulsiveness. Based on the results, the researchers found that individuals with SPD may have deficits in executive function, and they may have trouble controlling their impulses. It may be difficult for them to recognize, regulate and respond to their emotions and to control their intense or strong emotions to express them within a socially acceptable range. This could be because they lack sufficient executive function ability, which can lead to negative outcomes such as emotional dysregulation.

The researchers made judicious use of ANCOCA and regression models, which effectively adjusted the final results and made the contrast clear [6]. However, the study has its own shortcomings, for example, researchers did not measure participants' IQ in SPD group and healthy control group, which might be related to individuals' executive functions. So the reliability of the results may be challenged.

In another study, researchers explored the level of emotion regulation, distress tolerance, quality of life in individuals with SPD. Moreover, motor response inhibition ability in SPD people was examined. 140 adults with SPD and 74 healthy control adults were recruited and asked to complete a number of scales. After demographic analysis, the researchers ascertained that about 81 percent of the participants were female and about 70 percent were White Caucasian. Moreover, since the study was for adults, participants were all between 18 and 65 years old, with an average age of about 30 in the SPD group and 28 in the control group. The self-reported scales are designed to investigate the severity of SPD, the emotion regulation ability of the subjects from the aspects of expressive suppression and cognitive reappraisal, the subject's ability to tolerance pain, and subjects' quality of life. They can also measure the extent to which participants' psychiatric symptoms impair their social, family, work and academic functioning, the impulsivity and their motor response inhibition ability.

After further data analysis, the researchers found the moderate severity of SPD in SPD group. The SPD group had significantly lower scores in cognitive reappraisal and slightly higher scores in expressive suppression. The scores of Tolerance, Absorption, Appraisal and Regulation in SPD group were much lower than those in the control group. Additionally, the SPD group also got higher scores in Attentional Impulsivity, Motor Impulse and Non-planning Impulse than the control group. Moreover, the score of SPD group in functional impairment and inhibitory control was higher, and their score in perceiving life quality was lower. These data suggest that when patients with SPD experience negative emotions or mood swings, they often have difficulty regulating their emotions through cognitive reappraisal, and they may have difficulty in tolerating, coping with, and managing stress. The biggest scoring difference in the dimension of tolerance could show that after the pain strikes, the patients were often overwhelmed by these negative emotions. In addition, they are generally more impulsive than healthy people. Overall, the research reported that adults with SPD were more emotionally unregulated, less able to cope adequately, and more impulsive [7].

Besides, the researcher used a variety of methods to investigate the situation of the adult SPD group. Through social media, university emails, skin picking support groups and phone calls, researchers eventually recruited 363 adults to complete valid online scales. Researchers analyzed the data using means including Descriptive Statistics, Paired Sample T-Tests and Pearson Product Moment Correlations. They found that among the participants, about 44% of them have SPD, and most SPD patients felt negative emotions after skin picking, especially anger, anger toward themselves, shame and guilt. In addition, the more severe was SPD, the lower was the patients' self-esteem, and the worse was their subjective physical health and ratings towards their own appearance.

However, this study was based on an online self-report scale, and the results might been interfered by external factors, or there was a possibility that the same subject participated in two or more questionnaires, which may have interfered with the final results. In conclusion, the research suggested that individuals with SPD have lower

self-esteem than healthy ones, and they may have trouble controlling emotions and impulses [8].

After a comprehensive review of theses research, this article concludes that both adults and adolescents with SPD have problems coping and regulating emotions and exhibit a more impulsive image than the healthy individuals. Besides, the research of Gallinat et al. suggests that adults with SPD tend to have low self-esteem.

4. Treatment

4.1 Cognitive-Behaviour Therapy

CBT can be used to treat SPD. Researchers recruited 34 university students and staff with repeated skin picking symptoms and significant skin lesions. Then, they used a computer program to randomly assign them to 2 groups, including a treatment group and a waiting-list group, and each group had 17 subjects. Firstly, the 34 participants were asked to complete three self-report scales to evaluate the severity of skin picking, the psycho-social impact of skin picking on them, and the skin-picking-related cognition. In addition, the researchers photographed and preserved the parts of the subjects where skin picking caused the most severe lesion. Then, within a week, the therapists began working with the subjects in the treatment group. The first session was designed to educate participants about the development and maintenance of unwanted habits; In the second session, therapists performed cognitive interventions; The third session was behavioral interventions, which focused on improving self-control; and the fourth session was about preventing relapse. Each session lasted 45 minutes, and the four sessions lasted a total of five weeks. During this process, the waiting group would not be treated. At the end of the four sessions, the 34 participants were asked to complete the same three scales, and the most severe skin picking lesions were photographed again. Eight weeks after the second assessment, these measures will be repeated. Then, researchers conducted Chi-Square Analysis and ANOVA on the results of the scales. Photos of skin lesions at three time points of the same person were placed on one slide, randomly sorted out of chronological order. Then these photos were rated for severity by graduate students who were not part of the study group.

For the treatment group, the ratings of photograph severity showed an effect of time. In other words, after CBT, the severity of skin lesion caused by skin picking was significantly reduced. Additionally, there was no obvious change eight weeks after completing the treatment. While for the waiting-list group, the severity of their skin lesion did not change significantly during the period of this experiment. According to the results of the scales, researchers found that the severity of skin picking decreased significantly in the treatment group after a short period of CBT, and the effect remained good after eight weeks, showing a tendency to continue to improve. More than 90 percent of subjects in the treatment group improved or recovered from the psycho-social impact of skin picking, meaning they were better able to manage the picking behaviour or that skin picking had less influence on their quality of life. Besides, at the end of the treatment, about 70 percent of the participants in the treatment group had improved self-control cognition, they had improved in dealing with bad habits, and most of them had improved after eight weeks. In these areas, the waiting group did not show significant changes. This suggests that CBT, even just be brief, may be an excellent treatment for SPD. However, the experiment contained a small sample size, which challenged the generalizability of the findings [9].

HR is a form of CBT. CBT and HR are both psychotherapies based on behavioral and cognitive theories. CBT can help individuals change their thought and behaviour patterns, while HR is more focused on helping individuals get rid of their bad habits.

Researchers recruited 19 adults with SPD and randomly divided them into two groups: the HR group and the wait-list control group. The HR group was treated with HR for three weeks. In the first session, the therapist simulated skin picking and asked the subjects to identify the behaviour and antecedents in order to aware and acknowledge their skin picking behaviour and antecedents. In the second session, subjects were taught to clench their fists for 1 minute when being aware of the urge to pick their skin, which was called the competing response. In the third session, participants chose a social supporter who praised them when they used the competing response correctly, or prompted them when they did not. This was followed by two booster sessions to reinforce the efficacy of HR. The wait-list control group received no treatment. Moreover, one week before treatment, at the end of treatment, and three months after treatment, all subjects needed to complete a number of scales, and they were asked to indicate the most severe lesion caused by skin picking and were photographed. After performing ANOVA and photo analysis, researchers found that the HR group had a large improvement in skin picking symptoms, a decrease in the severity of skin picking, and a high acceptance of HR. This suggests that HR can effectively treat SPD and that it is an acceptable form of treatment [10].

4.2 Drug Therapy

In addition to CBT, drug therapy is used in the treatment of SPD. Among drugs, fluoxetine is a common choice. Fifteen adults with SPD were recruited through newspa-

per advertisements to participate in a study of fluoxetine in the treatment of SPD. They started taking 20mg/day of fluoxetine after completing the screening. During this they were regularly inspected by investigators and completed scales that measured the condition of skin picking. At low doses of fluoxetine, subjects who did not improve in the results of scales were deemed to have no effects, so they were asked to increase the dosage. After six weeks, eight of the subjects showed significant improvement. The researchers randomly divided the eight people into two groups, one group continued to take fluoxetine, the other group switched to a placebo. In this procedure, fluoxetine and placebo were placed in the same container and made into identical looking capsules so that the subjects could not know what they were taking. The double-blind study lasted for 4 weeks. Through scale analysis and an internist's evaluation, researchers found that subjects taking fluoxetine continued to reduce SPD symptoms, while the skin picking of the subjects taking placebo worsened, and even almost returned to the situation without any drug treatment. The study ruled out the possibility that the improvement was due to a placebo effect and showed that fluoxetine was effective in treating SPD. However, in the first six weeks of open-label treatment, seven subjects showed no significant improvement or no improvement. It might be due to the short duration of fluoxetine treatment, or the subjects did not take the medication as prescribed. It is also possible that fluoxetine did not respond to them, which requires further research in the future [11].

5. Discussion and Suggestion

Some studies were based on anonymous self-reported questionnaires. However, some people may not know or admit to having SPD, or they do skin picking but do not meet the criteria for compulsive or do not develop skin lesions, which may limit the findings. So this article advises that future studies needs more researchers' intervention.

As mentioned above, cross-sectional studies focus on a specific short period of time, which makes it difficult to show a clear causal relationship between the factor and a disorder. Therefore, longitudinal studies need to be carried out in the future, although it may not be an easy task.

Besides, presently, the studies about treatment were mostly based on small samples. This paper asserted that the universality of the efficacy of the therapies needs the support of large samples, so this article suggests that future studies should expand the sample size.

In view of clinical practice, this paper suggests that dermatologists and psychiatrists should consult patients with SPD jointly. Moreover, CBT and drug therapy can be combined, which may maximize effectiveness.

In the future, education could be used to reduce the prevalence of SPD. For example, community education may reform some bad parenting practices, and it may prevent children from experiencing domestic violence or other adverse experiences, thereby reducing the likelihood of SPD. Media publicity may also be a viable way to promote the treatment ways and possibilities of SPD, it may give more SPD patients confidence and encourage them to actively seek help from doctors.

6. Conclusion

This paper reviews the etiology from childhood experience, influence and treatment of SPD. In childhood, individuals who lack parental care and are over-protected by their mothers are prone to disease. In addition, childhood experiences of abuse, especially emotional abuse, may lead to SPD. SPD can have a significant impact on patients. It causes distress and makes it difficult for patients to regulate their emotions and perform their functions. They have difficulty tolerating, accepting, regulating and absorbing pain, and are more impulsive than average. Besides, their quality of life is impaired. Finally, CBT has been shown to be useful in treating SPD. HR, a form of CBT, is effective in treating SPD and highly accepted among patients. As a drug, fluoxetine also has a certain effect on SPD patients.

This paper suggests that future studies should focus on how to prevent the development of SPD through early education and psychological intervention. In addition, this article provides a new perspective for understanding the complexity of SPD and its treatment, which is of great significance for clinical practice and future research directions.

References

[1] American Psychiatric Association. (2013). Diagnostic and Statistical Manual of Mental Disorders (5th ed.). American Psychiatric Publishing.

[2] Valle, S., Chesivoir, E., & Grant, J. E. (2022). Parental Bonding in Trichotillomania and Skin Picking Disorder. The Psychiatric quarterly, 93(2), 409–418.

[3] Spitzer, C., Lübke, L., Müller, S., Lindstädt, T., & Gallinat, C. (2022). Childhood maltreatment, traumatic experiences, and posttraumatic stress disorder in pathological skin picking: An online case-control study. General hospital psychiatry, 78, 9–13.

[4] Grant, JE., & Chamberlain, SR. (2020). Prevalence of skin picking (excoriation) disorder. Journal of Psychiatric Research, 130, 57-60.

[5] Okan Ibiloğlu, A., Atli, A., Kaya, M. C., Demir, S., Bulut, M., & Sir, A. (2016). A Case of Skin Picking Disorder of a Patient with a History of Childhood Abuse. Noro psikiyatri arsivi, 53(2),

181–183.
[6] Kamberoğlu Turan, I., & Turan, S. (2023). Emotion regulation and executive functions in adolescents with Skin Picking Disorder. Applied neuropsychology. Child, 12(3), 221–226.
[7] Chesivoir, EK., Collins, M., & Grant, JE. (2023). Emotional Dysregulation in Skin Picking Disorder. Cognitive Therapy and Research, 48(1), 156-163.
[8] Gallinat, C., Stürmlinger, L. L., Schaber, S., & Bauer, S. (2021). Pathological Skin Picking: Phenomenology and Associations With Emotions, Self-Esteem, Body Image, and Subjective Physical Well-Being. Frontiers in psychiatry, 12, 732717.
[9] Schuck, K., Keijsers, G. P., & Rinck, M. (2011). The effects of brief Cognitive-Behaviour Therapy for pathological skin picking: A randomized comparison to wait-list control. Behaviour research and therapy, 49(1), 11–17.
[10] Teng, E. J., Woods, D. W., & Twohig, M. P. (2006). Habit reversal as a treatment for chronic skin picking: a pilot investigation. Behavior modification, 30(4), 411–422.
[11] Bloch, M. R., Elliott, M., Thompson, H., & Koran, L. M. (2001). Fluoxetine in pathologic skin-picking: open-label and double-blind results. Psychosomatics, 42(4), 314–319.