Factors That Influence the Relationship Between Childhood Abuse and Adulthood Depression

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Abstract: Major depressive disorder (MDD) is a global problem which brings bad effects to physical and mental health. Childhood abuse experience also brings severe outcomes for adulthood physical health and psychological health, especially depression. Research shows that childhood abuse predicts adult depression symptoms directly and indirectly through factors like personality, allostatic load and genes. Other factors like psychological resilience, gender, family environment, type of childhood maltreatment (CM), culture differences are also effective. In this paper, these are classified into internal factors (personality, allostatic load, psychological resilience, gender, self-acceptance and self-esteem, genes) and external factors (family environment, type of childhood maltreatment, culture difference). Personality, allostatic load, psychological resilience, self-acceptance and self-esteem, genes, family environment and type of childhood abuse all have effective influence on relationship between CM and MDD. There is something special with gender and culture difference. There still doesn't have enough literature to support the effective function of the two with significant statistics, but both of them have influence on childhood abuse and depression. Some researchers believe that childhood abuse could predict depression through a number of factors changed by gender or culture. Therefore, further studies are needed for the effects of gender or culture difference.

Keywords: childhood abuse, depression, mediate, moderate

1. Introduction

1.1. Depression and Childhood Abuse Background

1.1.1. Define and Current Situation of Depression and Childhood Abuse

As a healthy problem effecting mainly mental and physical health, major depression has high prevalence and is one of the most possible causes of disability globally, affecting an estimated 332 million individuals, annually [1]. As for depression, it is a psychiatric disorder which can be commonly met, and depression has an estimated lifetime prevalence of 10% in the general population. In clinical settings, the prevalence of depression could reach as high as 20% [2]. People with depressive symptoms have a low energy and self-confidence which have adverse effects on daily life and the progress of personality. Depression is defined as a long-lasting low mood, with symptoms

like depressed mood, anhedonia (loss of interest or pleasure), low energy and easy to be tired. It also has some accessory symptoms like lack of self-confidence or self-esteem, unreasonable self-accusation, thoughts of suicide and die repeatedly, ability of thinking slack up and absent-minded, psychomotor retardation or agitation, sleep disorder, appetite change. Not only the symptoms and progression, but also the prognosis of major depressive disorder (MDD) are related to various factors which are classified into genes, personality and environment [3]. In this article, a different classification way is utilized to demonstrate internal and external factors influencing the mechanism between childhood maltreatment and depression.

For all the risk factors, childhood maltreatment (CM) shows its effects as a mighty related predictor in suffering major depressive disorder, and nearly half of individuals with CM have higher possibility to experience major depressive symptoms during their adulthood [4]. It is said that people who experienced CM response worse outcomes during their therapy of depression disorder, and they also experience increased chronic depressive symptoms and higher possibility for suicide, and are more likely to suffer some comorbid health conditions [4]. Studies showed that 127per 1000 people globally report that they have experienced sexual abuse during childhood, while 226 of general suffered physical abuse, and 363 among all used to face emotional abuse [5]. Childhood abuse, also called childhood maltreatment, including physical and emotional abuse and neglect for children, is regarded as a severe problem, harming psychological and even physical health of human beings. CM includes physical, emotional and sexual abuse, like long-term beat up or slap, or experience of sexual assault; physical, emotional and neglect; household dysfunction. Therefore, the mechanism between depressive symptoms and childhood abuse has an important meaning for treatment and preventing adulthood depression symptoms caused by childhood maltreatment.

1.1.2. Popularization of Depression in Adults with Childhood Abuse Experience

Childhood abuse is regarded as a mighty cause for adulthood depression. The literature demonstrates that adverse childhood experiences (ACEs) have high possibility of predicting ensuing behaviors threatening life health, psychosocial matters, physical diseases and other unfitting later outcomes during life [6]. Many researchers are interested in the influences of ACEs on depressive symptoms in adulthood, like its predicting function, progressing use for depression and so on [6]. Some severe consequences are connected with mental health during the whole life course, which childhood maltreatment could bring, including anxious mood condition, major depressive disorder, and addiction, embarrassing global adults in the modern society. There is a firm link in many researches appears in childhood abuse experience and the developing outcomes of anxiety and depression during the adulthood, in the meantime, a latest meta-analysis study found that childhood/adolescence abuse experience and major depressive disorder in adulthood have some positive associations ($OR = 2.0$), also with the anxiety in adulthood ($OR = 2.7$) [5]. As a result, childhood trauma is highly related to increased vulnerability for individuals of depressive symptoms.

1.1.3. Cure Measure

Nowadays, there are already plenty of cure measures for depression. Cognitive-behavioral therapy (CBT) and Mindfulness, as well as the drug therapy and some emerging therapies are really popular and effective. Physical therapy like Auricular electrostimulation therapy and light therapy are proved to be effective recently [7]. However, as for the depression caused by childhood abuse, patients' acceptance is lower level and their emotional sensibility is really high. According to the Learned Helplessness theory, negative attitude and feelings of cannot control themselves are because they used to experience unsuccessful control attempt or psychological pain. For patients who have experienced inescapable childhood maltreatment, they developed a sense of helpless, leading to

unhealthy mental states like self-abasement, autism and so on. Curing such patients needs to understand mechanism of depression and childhood maltreatment, then help patients to regain what was lack in their childhood. Therefore, the relation among effective factors for childhood abuse and adulthood depression is essential.

1.2. Research Gap

There are some articles classify these factors influencing depression and childhood abuse into biological factors, psychological social factors and the combined function of biological and psychological social factors [8]. However, there lack literature to conclude all of these effective factors into internal factors and external factors, which is more concise. Also, previous studies just analyzed people with childhood abuse experience, but lack different culture or different birth environment. For example, parents abandon the child after giving birth which mean that this child suffers childhood maltreatment but bot abuse or neglect. The studies concerning different cultures are also few. What's more, mechanism of gender to be an effective factor is still unknown. Some research find that it is more possible for female to predict depression after childhood abuse experience but not statistically significant for their sample size is not enough.

1.3. Research Objective

Relationship among adverse childhood experience and adulthood depressive symptoms is changeable. For internal factors, there are personality, allostatic load, psychological resilience, gender, self-acceptance and self-esteem, genes. For the external factors, there are family environment, type of childhood maltreatment and culture difference. Among these factors, personality, allostatic load, self-acceptance and self-esteem, genes could play a role. For next part, first is some supply for relationship between childhood abuse and depression, then are the internal factors and external factors. At last, there will be some advice for individual, family and friends, society.

2. Influencing Factors

Childhood abuse is related to some negative outcomes in adulthood, including major depression. It has a little different with just neglect or sexual abuse, when predicting the symptoms of depression. People being exposed to maltreatment during childhood seem to be less emotional strong in account of lower quality of living environment or mental problems. Childhood abuse has the ability to predict the extent of major depressive symptoms directly [3] and is also able to affect the depression indirectly with the use of internal factors and external factors. For the internal factors, there are personality, allostatic load, psychological resilience, gender, self-acceptance and self-esteem, genes. For the external factors, there are extent of childhood abuse experience, family environment, type of childhood maltreatment, culture difference. Through utilizing these factors related to mechanism of depression, therapy area could renew curing skills and could make a difference in the clinical researches for future at the same time.

2.1. Internal Factor

2.1.1. Personality

Personality, playing a mediating role in adverse childhood experience and adulthood depression problem, especially the emotional stability, could affect mechanism of major depression on account of childhood maltreatment for its traits of changeable. Personality is a characteristic way of how people think, feel and behave, and it includes decision making, how people feel, and ideas toward life and is usually analyzed in the interact relationship with others. People with different personality have

different symptoms in depression. One research found that while childhood abuse has the ability to influence the extent of depressive symptoms directly, it could also predict the major depression with the mediating function of personality [3]. Childhood abuse experience influences the progress of children and then changes their personality which is dynamic, causing a higher risk in major depression in their adulthood.

Among the Big Five personality traits (extraversion, emotional stability, conscientiousness, agreeableness, openness), extraversion and emotional stability are reported to be the personality traits which could reduce adulthood major depressive symptoms, while agreeableness is strongly associated with higher risk of depression in adulthood [9]. Further, emotional stability is the only personality trait that plays a mediating role in CMs' influences on depression with significant statistics [10]. Children with childhood maltreatment experience have a lower emotional stability than normal, exposing them to higher possibility of major depression in adulthood. Low emotional stability could cause depression symptoms like depressed mood, sleep disorder.

As a result, mental health is influenced by childhood abuse in the long term by changing personality traits in a developing way. Childhood abuse could make a difference on personality and both of them predict the severity of depression. In a word, personality is a mediator between CM and major depressive disorder.

2.1.2. Allostatic Load

Allostatic load is the mediator for adverse childhood experience and adulthood major depressive disorder. Allostatic load (AL) is the accumulated loss that someone's body has when facing long-term stress. It is also an index of physical health. The higher allostatic load a person owns, the less healthy this person will be. Research found that: (1) Allostatic load predicts future adulthood depressive symptoms while controlling for recalled childhood maltreatment; (2) Allostatic load mediates from 8.86% to 10.26% in all the factors of childhood maltreatment on symptoms of MDD; (3) Results are significant while controlling for recent pressure, age, education level, income, gender, race/ethnicity, as well as medication use [4]. Given that results have been found above, it can easily come to the conclusion that AL acts as a mediator in physical abuse and MDD, but not between sexual abuse experience and MDD. This function of affecting is moderated by subjects' age: particularly young (18 – 42 years) and middle-aged (43 – 54 years) adults who used to suffer physical abuse during childhood shows higher level of allostatic load, relating to increased risk of MDD, however, this is not fit for older participants (55 – 81 years) [2]. Therefore, the mediating influence from allostatic load is not useful for late life people. And factors like recent stress, income, education, sex, race/ethnicity and medication use are control variables, which need further research, for relationship between ACEs and adulthood MDD. What's more, AL partially mediates the connection between CM and adulthood MDD, being connected with MDD symptoms for seven years prospectively in an average level [4]. Also, the combined action of hypothalamus, hypophysis and cortin is related to the depression while AL is influenced mainly by cortisal and epinephrine, so as a result, allostatic load (AL) is one of the mediators of CM and adulthood MDD symptoms for the biological part.

2.1.3. Psychological Resilience

Psychological resilience is a moderator for childhood maltreatment and adulthood depression. It is the ability for people to show stable levels of functioning even if things are diversity. It can also be defined as an adaptive ability to deal with variations and dilemma. Resilience is a dynamic psychological structure, which is modifiable, and it can be influenced by major life changes like pregnancy. If a range of demographic variables is controlled, not only childhood abuse but also psychological resilience could affect symptoms of MDD respectively [6]. Also, psychological

resilience plays a protective role in adverse childhood experience and adulthood major depressive disorder. Furthermore, the association between ACEs and MDD was stronger among individuals with lower resilience [6]. That is to say, resilience moderated the association between ACEs and adulthood MDD. What's more, higher psychological resilience is regarded to be associated with lower major depressive symptoms. Treatment whose target is to reduce symptoms of MDD among patients with ACEs could take psychological resilience into account.

2.1.4. Gender

When facing some mental health problem, especially depression, many think of gender. However, with current research, gender is less related to childhood abuse and depression. Women have larger associations with CM and MDD, however, this difference is not significant on the statistics [5]. They also found that as for women, children with physical and sexual abuse experience are more likely to suffer major depression in their adulthood and the number is higher than men. Nonetheless, as for now, there is not enough evidence to firmly check out gender differences in the influences of CM [5]. What's more, for the AL mentioned above, sexual abuse is not associated to relationship between CM and major depression when the CM influences are affected by AL [2]. According to these findings, childhood abuse in women is larger number to predict depression but is not significant on statistic. More detailed research is required to check relationship between gender and different depression mechanism.

2.1.5. Self-acceptance and Self-esteem

Self-acceptance is the ability people own to accept and love themselves. Self-esteem means that people believe themselves and respect the authority of being a human. They are a kind of trait which people in good condition will have. Self-acceptance is an attitude formed based on the self-assessment, and is an important criterion to measure mental health. Self-acceptance is the basic condition of self-esteem theoretically. As a result, childhood abuse changes the self-acceptance level and then influence the self-esteem, leading to depression emotionally. People with childhood abuse experience mostly attribute failure to themselves and have a low self-assessment. Research found that both self-acceptance and self-esteem are related to the indirect influence childhood abuse has towards adulthood depression [11].

2.1.6. Genes

Genes is one of the crucial factors for depression. As for depression caused by childhood abuse, genes also effect it as a mediator. Research supports the relation between stress and occurrence risk, and the mediating effect gene expression has during the childhood abuse influencing depression [12]. Childhood abuse predict depression through different gene expression and the regulation of gene expression in depression is multiple genes involving effect. Childhood maltreatment experience predicts teenager depression symptoms through activating the inflammation-related gene Tumor Necrosis Factor (TNF) and increasing the expression of Ribosomal protein L26 (RPL26). Also, childhood abuse leads to immune disorder through influencing the expressive changes of immune-related genes Protein phosphatase 1 regulatory inhibitor subunit 11 (PPP1R11), Radical S-adenosyl methionine domain-containing protein 2 (RSAD2), Syntaxin11 (STX11) and Zinc ribbon domain containing 1 (ZNRD1), then effects the depression. What's more, childhood abuse predicts depression through effecting the expression of signal transduction mechanism-related genes cyclic adenosine phosphate (c AMP), endosome-lysosome assuciated apoptosis and autophagy regulator (KIAA1324 or EIG121), kringle containing transmembrane protein 1 (KREMEN1) and transmembrane protein 63C (TMEM63C). On the other hand, oxytocin receptor gene could mediate

childhood abuse and depression [13]. What's more, inflammation-related factors are said to be associated with childhood abuse and depression [8]. Therefore, gene factor is really important for childhood maltreatment depression mechanism research, and is the most precise way to discover its mechanism.

2.2. External Factor

2.2.1. Family Environment

Family environment predicts adulthood depression as an external factor. Family environment includes the education from parents, parents' empathy, educational level of parents and so on. Children living in better family environment are related to lower symptoms of depression. Education given by mother has significant effect for depression [8]. Parents with negative educational actions like neglect, dictatorship could increase depressive emotion of children. It's also a kind of childhood abuse. During the childhood, children's mind and cognizance are not mature, which could be altered by family environment in an imperceptible way. Children with depressed parents are more possible to be depressed than normal for the reason that they will imitate their parents' behaviour, which gives rise to higher risk of depression.

2.2.2. Type of Childhood Maltreatment

Some different kinds of childhood maltreatment have been certificated as effective elements for adulthood depression disorder. Childhood maltreatment has emotional abuse like neglect or disdain, physical harm like long-term beat up or slap, sexual abuse. Different kinds of maltreatment have different mechanisms. Research shows that there is a statistically significant impact on depression from physical abuse and neglect, also emotional abuse and neglect [12]. However, influence of sexual abuse towards depression is not salient [12]. As a result, part of the childhood maltreatment has influence on adulthood depression.

2.2.3. Culture Difference

Some articles come up with the effect of cultural difference but still lack solid evidence. Different culture leads to various characteristics people have through affecting living environment [8]. For countries like American and Japanese, children are thought to be independent as early as they can, while in countries like China, parents are more likely to take care of their kids until they can live by themselves, even live together for the whole life. With such difference, China children suffering childhood abuse appear to be more likely to depression. For the future studies, researchers could focus on the family under different cultures and some special family like combined culture.

2.3. Advice

2.3.1. Personal

While gender and genes cannot be changed, personality and AL, psychological resilience, self-acceptance and self-esteem could be some directions for depression patients. Firstly, admitting having such mental health problem, then get to realize the cause has some benefits. Secondly, doing something to build self-confidence like playing sports the person is strong in also makes a difference. If it is difficult to have self-acceptance by themselves, patients could turn to therapist for help, and therapists ought to encourage patients to believe themselves, help them realize their ability but not

finish the things for them. What's more, patients could distract attention when emotion is really down. In a word, setting up self-confidence and keeping moving.

2.3.2. Family and Friends Support

If one has depression caused by childhood abuse, the family are supposed to do self-reflection. The lack of care from family, which is also called neglect, leads to low self-esteem and self-acceptance. Many children behavior like their parents, so adverse childhood experience could influence many generations. According to what caused the lack of family supporting, giving compensation to this man is supported. As for friends, the best way is to listen. Depressed patients are more willing to pour out their trauma to people they believe [14]. After pouring all the grievance, the depressed people could feel better and trust the friend more. Also, dependable companion is helpful for these patients.

2.3.3. Social Support

Social support gives depressed patients a connect with society, increasing their active ideas of considering positive things [15]. Government could pay more attention to depression and childhood abuse, setting up laws to support such therapy area or popularizing the knowledge of depression and severe outcomes of childhood abuse behaviour. Mutual aid is a kind of solution for depression, people chat with others who have the similar problems. They could feel more empathy and be understood. For the normal people in society, they need to understand the dilemma depressed patients are facing and do not discriminate them [16].

3.   Conclusions

Adverse childhood experience increased the risk of major depressive disorder in direct and indirect ways. According to the past literature, there are internal factors and external elements that influence the relationship between CM and adulthood depression. Internal factors like personality, allostatic load, psychological resilience, gender, self-acceptance and self-esteem, genes play roles of mediator or moderator in effecting CM and MDD. External factors like family environment, type of CM, culture difference could also affect depressive symptoms and ACE. People grow up with a bad family environment may have changes on personality or psychological resilience which then effect the predictive use of childhood abuse to depression symptoms. Also, not all the childhood maltreatment are related to adulthood depression, while physical or emotional abuse and neglect play a role.

Through classifying and understanding mechanism of MDD and childhood abuse, therapy targeting at such patients could have efficient renews. For personality, as a mediator, therapists measure patients' characteristic and then give more precise suggestions. Also, for the gene mechanism research, drug development could be more reliable and effective. In a word, this classified conclusion is meaningful for areas like therapy, cognitive neuroscience, major depression, childhood maltreatment experience and so on.

There still has some controversies like whether gender is an effective factor for CM and MDD with significant statistics from enough samples, whether allostatic load could be changed through therapy, and whether culture difference has realistic influence on depression. Also, for future research, identifying the prospective function of allostatic load on the development and progress of depression disorder through biomarkers is a crucial target.

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