The Impact of Adult Attention-deficit Hyperactivity Disorder on Couple and Marriage Relationships: A Review of the Literature

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Abstract: Attention-deficit hyperactivity disorder (ADHD) is an area that research has been mostly focused on children as the diagnosed population, and adult ADHD research has not been given as much attention. The prevalence of ADHD in adults is also significant, and one of the areas that suffer for adults with ADHD is their relationship life, especially couple and marriage relationships. In recent years, researchers have been exploring the emotional challenges faced by people with ADHD and their partners. The purpose of this paper is to uncover more valuable research directions and methods by reviewing the research on the impact of adult ADHD and couple and marriage relationships. This literature review assessed the research on adult ADHD and the couple and marriage relationship by exploring factors such as the causes of the impact of ADHD on the quality of the couple and marriage relationship, differences between ADHD subtypes, gender differences, and co-morbid issues. Finally, potential and valuable research directions in the future are identified with suggestions about the refinements and improvements in research methodology.

Keywords: adult ADHD, couple, marriage, romance, intimacy

1. Introduction

Attention Deficit Hyperactivity Disorder (ADHD) is a neurodevelopmental disorder that was previously thought to be a condition that primarily affects school-age male children and does not usually accompany patients into adulthood. Further research has shown that the prevalence of ADHD in adults is much higher than we expected, but the scale of relevant research has lagged behind the development of psychiatric understanding of the disorder [1]. ADHD causes the greatest harm to adults by affecting their ability to build and maintain healthy relationships in their personal and professional lives [2]. Stable and healthy couple and marriage relationships are important for adult mental life, and relationship life, particularly romantic relationships, is an area that is impacted by adults with ADHD [3], and relationship dissatisfaction and miscommunication are more likely to occur when there is one partner with ADHD in a romantic relationship, and relationship dissolution [4–6].

While research conclusively demonstrates that ADHD negatively impacts romantic relationships, people with ADHD who want to maintain romantic relationships face difficulties due to the conclusiveness of these findings. Because the mechanisms of how ADHD specifically affects marital

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and romantic relationships are complex, insufficient attention has been devoted to exploring both theoretical and practical approaches aimed at enhancing the well-being of adults diagnosed with ADHD. Consequently, it becomes imperative to provide a comprehensive review encompassing current studies investigating the impact of adult ADHD on intimate relationships, while also considering future directions in terms of research methodologies. Such insights will prove invaluable in assisting individuals affected by ADHD as well as their partners in adapting strategies that foster successful romantic connections.

2. Main Discussion

There are many typical research directions in the current academic world on the marital relationship of adult ADHD. In this paper, we searched Google Scholar, web of science with the relevant keywords of adult ADHD, couple and marriage relationship, and reviewed the cited and quoted literature, and summarized the following typical research directions: analyzing the reasons for the influence of adult ADHD on the quality of marital relationship, the influence of different ADHD subtype on the quality of marital relationship, the mediating effect of ADHD patients of different genders' experience in marital relationship, co-morbid problems and other psychological factors in the influence of ADHD on marital relationship, which can represent the main research hotspots at present.

2.1. Emotion Dysregulation

This type of research analyzes studies in terms of the mechanism of influence, corresponding symptoms of ADHD with poor evaluations of couple and marriage relationships, such as susceptibility to frustration, anger, resentment, and more intimate partner violence. Since disturbances in executive functioning, personal control, and attentional processes that characterize ADHD tend to affect intimate relationships such as marriage [7,8], recognizing the disorders that occur in these areas is crucial, as they are believed to be the primary cause of behavioral problems in ADHD patients [9,10].

Emotion dysregulation is considered to be an important factor in the impact of adult ADHD on couple and marriage relationships, and numerous scholars have conducted in-depth research on the mechanisms of its impact. Barkley and Fischer provided an in-depth analysis of how emotion dysregulation manifests itself in a wide range of contexts, with emotion dysregulation in people with ADHD leading to higher levels of acute irritability, frequent and easy frustration, emotional over reactivity, agitation, quick temper tantrums, and quick irritation [11]. More in-depth, individuals with ADHD exhibit higher levels of emotional impulsivity that applies to both positive and negative emotions, demonstrating deficits in regulating or filtering emotional expression. In contrast to the above from an in-depth research perspective, Bunford examined the manifestations of different adult ADHD subtypes from a broader perspective, which concluded that regardless of the subtype or manifestation (ADHD-IA, ADHD-HI, or ADHD-C), individuals with ADHD have impairments in emotion regulation that all affect relationship satisfaction. Adult ADHD's preferences for conflict resolution also negatively affect their social relationship building [12]. Kahveci Oncu found that ADHD participants used less submissive conflict resolution and more negative conflict resolution in their marriages, which also negatively impacted couple and marriage relationships. It can be found that there is a great deal of current research on the impact of adult ADHD on the couple and marriage relationship from the direction of emotion regulation disorders, both in depth and breadth [13].

A subset of scholars have also explored the mechanisms of adult ADHD on emotion regulation and couple and marriage relationships from a physiological perspective. In a study conducted by Ghahramanzadeh, it was discovered that deficits in the parasympathetic nervous system, specifically difficulty inhibiting the fight-or-flight response during social activities, not only led to increased anxiety, depression, and stress in couples with ADHD compared to the general population but also did not significantly affect the quality of life or the various components of their romantic relationship such as marital agreement, satisfaction, and cohesion [14]. Gallo's research from a neuroimaging perspective found that Individuals diagnosed with ADHD often exhibit deficiencies in neural circuits associated with the regulation of inhibitory control and emotions. However, further investigation is necessary to gain a deeper understanding of how neurodevelopmental disorders share commonalities and differences in terms of social and emotional difficulties [15].

2.2. ADHD Subtypes and Marital Quality

This one analyzes the differences in the performance of different subtypes in the couple and marriage relationship and analyzes the reasons for them, such as the differences between different ADHD subtypes on issues such as emotion regulation, problem solving, well-being, and the probability of rejection. The performance of different subtypes of adult ADHD patients on couple and marriage relationships has some commonalities, Bunford concluded that regardless of subtype or manifestation (ADHD-IA, ADHD-HI, or ADHD-C), ADHD patients suffer from impaired emotion regulation [12]. Additionally, Canu and Carlson found that ADHD-C patients and ADHD-IA patients did not show a significant difference between the results of the SEQ of sexual experiences compared to controls [16]. Although overall, people with ADHD share commonalities in their couple and marriage relationships, the different subtypes differ in terms of dating experience and motivation.

Regarding ADHD-IA research, Canu and Carlson found that individuals with the ADHD-IA subtype would exhibit more passivity than non-ADHD samples, with the ADHD-IA group scoring lower on dating experience, relationship milestones, sexual escalation, and overall dating motivation [16]. Soares suggest that ADHD-IA may lead to progressive forms of frustration and anger [17]. However, some research suggests that this effect is limited to having an adverse effect in the early stages of a couple and marriage relationship, and research by Canu suggests that negative behaviors in the relationship behaviors of partners with ADHD-IA are largely indistinguishable from those of the control group, which may be due to the fact that ADHD-IA related traits such as passivity may impede the initiation of a romantic relationship, but they are less likely to be verbally interactions as positive negativity, and thus may lead to less relationship disruption [18].

Regarding research on ADHD-HI, Soares suggest that whereas individuals with ADHD-C and ADHD-HI types may engage in angry behaviors without weighing the consequences, this can lead to vulnerability to the disruption of intimate relationships [17]. Relatively little research has been done on the ADHD-HI subtype, and in addition to the small number of individuals with this subtype [19], this may be related to its impulsive nature, as it is more difficult to work with and more challenging to experiment with [20].

With regard to ADHD-C research, it is intuitive that the ADHD-C group would score higher on dating scores and sexual experiences than the ADHD-IA group, and experimental confirmation of this can be observed through the fact that individuals with the ADHD-C subtype tend to exhibit elevated scores in conversation initiation, assertion, and interest. This correlation may be attributed to the association between increased impulsivity and higher levels of promiscuity [16]. In contrast to ADHD-IA, the ADHD-C subtype performs more poorly when intimacy is established, with individuals with the ADHD-C subtype displaying more impulsive and inappropriate responses [16,18], and relative to ADHD-IA and non-diagnostic couples, ADHD-C couples display more negative behaviors in the conflict resolution conflict tasks had more negative behaviors and fewer positive behaviors, which corresponded to couples' relationship satisfaction.

2.3. ADHD Patients of Different Genders

ADHD diagnosis rates vary by gender, and there is a general phenomenon that female adults with ADHD have lower quality couple and marriage relationships. Current research suggests that ADHD diagnosis rates vary by gender and reflect new changes with age, a line of research that has attracted the interest of many scholars. Research has shown that males are more likely to be diagnosed with ADHD than females [21]. The ratio of males to females diagnosed with ADHD ranges from 2:1 to 16:1 [22-24]. In terms of elucidating the elevated prevalence of ADHD in males during childhood and adolescence, it can be attributed to their heightened susceptibility to hyperactive-impulsive symptoms. Consequently, there is a greater likelihood of identifying externalized behaviors rather than inattentive subtypes. [25,26]. These particular behaviors have the potential to cause significant disruptions, particularly within educational environments. As a result, behavioral interventions and clinical diagnoses are frequently implemented, thereby contributing to the escalation in diagnosis rates. Fuller-Thomson believed that males tend to exhibit impulsivity and hyperactivity symptoms, whereas females predominantly exhibit symptoms of inattention, and therefore exhibit less overt and disruptive behaviors, which results in lower diagnosis rates for females than males during childhood and adolescence [27]. However, these differences appear to narrow as individuals reach adulthood [28]. According to Nussbaum, the variation in ADHD diagnosis rates between males and females may be attributed to differences in socialization [29]. In particular, females tend to receive greater encouragement to seek assistance when necessary and are generally more proficient in articulating their thoughts and emotions, which may contribute to a higher incidence of adult ADHD diagnoses among females. Even so, females are still a minority of adults with ADHD, which may be due to the fact that there is an increased likelihood for females who have ADHD to receive a diagnosis or be misdiagnosed with anxiety disorders, depression, and bipolar disorders [30–32]. It has been argued by Nussbaum that females with ADHD face a higher risk of misdiagnosis where symptoms resembling depression and dysthymia may lead to categorization as such instead of recognizing it as ADHD-IA [29]. Similarly reported by Nadeau, women presenting symptoms like hyperactivity, impulsivity, and heightened energy levels associated with ADHD-C may be mistakenly diagnosed as having mania or aggression [33]. Furthermore, the majority of research conducted on individuals affected by ADHD is predominantly based on male samples, making it challenging to determine if the experiences and outcomes related to interpersonal relationships and romance are consistent across both genders.

The sense of intimacy experienced by adults with ADHD varies by gender, and it is worth examining what role gender plays in intimacy for adults with ADHD. A study by Bruner on the quality of romantic relationships with ADHD measured participants' ADHD symptoms, emotional regulation difficulty ranges, and frequency of negative conflict, and found that while the impact of gender on the relationship between ADHD and lower satisfaction in romantic relationships was not significant, young women with ADHD reported lower quality in their relationships, which correlated with the severity of their symptoms⁶. Additionally, Fedele found that gender played a role in moderating the association between ADHD and social barriers [34]. Specifically, female college students diagnosed with ADHD faced more obstacles in family life, social interactions, and romantic relationships compared to their male counterparts, that the symptoms of ADHD may be more troubling for young females than males, and that due to the difference in levels of socialization, young females may perceive greater impairment from social/relationship deficits, and women with ADHD may be able to describe their impairment more accurately than men with ADHD.

However, it is important to note that not all published studies are consistent with the trends found in these findings. According to Babinski's study from 2011, it was observed that women diagnosed with ADHD faced greater challenges within their romantic relationships compared to women without the condition [35]. However, there was no significant difference between the impairment levels experienced by women with ADHD and those experienced by men with the disorder. In another research conducted by Ben-Naim, it was discovered that male partners of women diagnosed with ADHD reported lower levels of intimacy within their romantic relationships compared to female partners of men diagnosed with the same condition [5]. The study also indicated higher relationship damage among these couples. Additionally, Wymbs examined gender as a potential moderator but concluded that it did not have a moderating effect on the relationship between ADHD and intimate partner violence(IPV) [36,37].

2.4. Mediating Effects of Co-morbidities

One of the characteristics of ADHD is that it is often comorbid with other psychological disorders, and 80% of adults with ADHD have comorbid psychiatric disorders [38,39]. The issue of comorbidity is one of the common research directions, and scholars have investigated the co-morbidity of ADHD with substance use disorder (SUD), autistic spectrum disorder (ASD), oppositional defiant disorder (ODD), anxiety disorders, depression, and other co-morbidities have been extensively studied.

For example, Pachado found that coexisting adult ADHD exacerbated the severity of interpersonal problems in a study of quality of life among individuals with SUD [40]. In their research on the correlation between adult ADHD and violent conduct within society, González discovered that individuals exhibiting severe symptoms of ADHD often engage in repeated acts of violence, particularly directed towards intimate partners [41]. These aggressive behaviors are frequently linked to concurrent psychopathological conditions like SUD and mood disorders. Additionally, Wunderli noted that adults diagnosed with both ADHD and cocaine addiction experience an exacerbated decline in social and emotional empathy levels [42]. A study by Soares demonstrated that individuals with both ADHD and ASD were more likely to be without a romantic partner, that individuals with ADHD experienced more intense emotions, and that the inattentive subtype demonstrated lower romantic well-being as well as expressions of love and affection [17]. Additionally, inattentive subtypes experience higher rates of rejection, which may reinforce inactivity and disinterest in romantic relationships. Research has shown that 65% of adults diagnosed with ASD have severe affective deficits [43], whereas only the ADHD-IA and ADHD-C subtypes have been associated with affective deficits in people with ADHD [44]. Sexual activity tends to be particularly problematic in adults with ADHD, especially those with co-occurring Conduct Disorder or ODD [45]. The presence of ADHD and ODD symptoms is strongly linked to various stressors and distinct coping strategies. When compared to individuals with solely ADHD symptoms, college students who exhibit symptoms of both ADHD and ODD demonstrate unique patterns of stressors and coping mechanisms [46].

It is important to note that individuals with dual ADHD also demonstrate the phenomenon of assortative mating, where adults with similar characteristics are more likely to be attracted to each other than by chance alone [47,48]. This pattern of like-mating has been observed in adults with various psychiatric disorders such as alcohol use disorders, generalized anxiety disorder, major depressive disorder, panic disorder, and specific phobias [49]. According to a study by Wymbs, approximately 67% of the adults with ADHD in their sample had partners who exhibited significant ADHD symptoms [50]. The high proportion of elevated clinical ADHD symptoms among their participants suggests that adults with ADHD tend to choose partners who also have elevated levels of ADHD symptoms at a much higher rate than would be expected by chance alone. Steele conducted research on adults diagnosed with childhood ADHD, especially those who are currently symptomatic, have partners who, compared to adults with no history of ADHD had more pronounced clinical symptoms of ADHD [51]. Differences in like- mating rates between adults with persistent ADHD and adults with indifferent ADHD were also assessed, and the results indicated that adults in the persistent

ADHD group (ADHD-Persist) were more likely to choose partners with exacerbated ADHD symptoms than adults in the ADHD-indifferent group (ADHD-Desist), thus extending previous research efforts.

Mediating effects of psychological traits such as attachment type also play a role in the influence of adult ADHD on couple and marriage relationships, and examining their mechanisms can effectively guide practice. Dotten research demonstrated that levels of avoidance and deficits in emotion regulation affect the relationship between ADHD and overall dysfunction [3]. In a study conducted by Knies, it was discovered that individuals with anxious attachment styles tend to experience lower levels of romantic relationship quality [52]. Although insecure attachment styles are generally believed to have adverse effects on romantic relationships, this finding highlights the specific impact of anxious attachment on relationship dynamics., unlike the findings of Dotten, which reported positive effects of avoidant attachment on romantic relationships such as decreased conflict and increased satisfaction, indicate that avoidant attachment primarily predicts reduced separation as a negative outcome [3]. Additionally, we observed that ADHD symptoms negatively affect romantic relationship quality, particularly when combined with a partner exhibiting high levels of anxious attachment and poorer relationship outcomes [52].

Indicators related to interpersonal relationships also mediated the effect of adult ADHD on couple and marriage relationships. Because of the association with relationship dysregulation, many common comorbidities are associated with many indicators of relationship distress, dissatisfaction, miscommunication, and problem-solving behaviors, IPV [53], and the interpretation of psychological comorbidity as a moderator of the relationship between adult ADHD and interpersonal dysfunction has gained a certain amount of acceptance from a certain number of researchers. Studies conducted by Wymbs have explored the role of psychopathic traits, alcoholism and illicit drug use as moderators, with IPV as the outcome variable [37,54]. The findings from these studies revealed that the two substance use variables acted as moderators in the relationship between ADHD and IPV. Canu found that elevated rejection sensitivity (RS) led to more problems associated with ADHD experienced by adults with ADHD and that ADHD-IA men reported more negative relationship outcomes than ADHD-C men [55]. Bruner found that hostile relationship conflict mediated the association between relationship quality and ADHD symptoms, and that receiving early intervention and learning healthy conflict communication skills had positive effects on improving couple relationships [6].

3. Conclusion

Based on the literature reviewed, adult ADHD has important and complex implications for healthy couple and marriage relationships, which have been extensively researched by numerous scholars, but despite this, the underlying rationale remains unclear and is slightly insufficient to guide clinical psychological interventions. In light of this, the following recommendations are made for the study of adult ADHD on healthy couple and marriage relationships.

In terms of research content, dual ADHD partners or co-morbidities make the general ADHD symptoms are not enough to affect a healthy life broken, and intimate relationships (e.g., marriages) of people with ADHD become problematic, and the number and depth of studies need to be improved because of the small relevant samples. There are also fewer studies related to ADHD-HI subtypes, although there are objective reasons for the small number of patients with this subtype and the low level of cooperation, the quality of marriages in this subtype tends to be more worrisome and the significance of the studies is rather more important. In addition, there are conflicting ideas about the mechanisms that influence the relationship, and the reasons that are not yet known must be key to intimate relationships, such as the role of the mediating effect of avoidant attachment and the role of gender in the regulation of romantic relationships.

In terms of research methodology, the problem commonly mentioned by researchers is the high limitation of the selection of the research sample, the typical problem is the small number of participants, usually 20-30 people per group, and gender imbalance, there is a general situation that the number of female participants is in the majority, this sample characteristics may have a certain impact on the results of the study, which in turn causes the limitation of the research conclusions, of course, this problem is limited by many realistic, this problem is limited by many practical factors, but it is also a problem that we should avoid. Another issue is the design of the survey to exclude the influence of other psychological problems, Sacchetti showed that the rate of comorbid mental disorders in ADHD research samples can reach 54.8% [56], and this rate is a key confounder, which requires that the full survey should be done properly, and without controlling for this variable, it is difficult to understand the influence of other psychological disorders on the study measures.

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