



Received: 22 June, 2022

Accepted: 07 July, 2022

Published: 08 July, 2022

*Corresponding author: Anh-Luu T Huynh-Hohnbaum, Professor, Department of Social Work, California State University, Los Angeles, USA, Tel: 818-458-7859; E-mail: ahuynhh@calstatela.edu

ORCID: <https://orcid.org/0000-0003-3227-3372>

Keywords: Adult; Attention deficit hyperactivity disorder; ADHD; Relationship; Comorbid; Substance; Substance use disorder; mood disorders

Copyright License: © 2022 Huynh-Hohnbaum AT, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

<https://www.peertechzpublications.com>



Check for updates

Review Article

Compounding effects of adult ADHD and comorbidities on intimate relationships

Anh-Luu T Huynh-Hohnbaum^{1*} and Sara Benowitz²

¹Professor, Department of Social Work, California State University, Los Angeles, USA

²Step Up On Second, Homeless Outreach 6762 Lexington Ave. West Hollywood, CA, USA

Abstract

Although research about adult Attention Deficit Hyperactivity Disorder (adult ADHD) has become more prevalent since the condition's recognition in the 1990s, information remains scarce about if and how its psychiatric comorbidities may compound impact on functionality in relationships. Studies abound on the independent effects on relationships of two of adult ADHD's most common comorbidities - mood and substance use disorders. However, adults with ADHD sans comorbidities often experience interpersonal relationship difficulties due to the disorder's signature symptoms alone - hyperactivity, impulsivity, and inattentiveness - as well as due to adult ADHD's oft-observed dimension of emotional lability. The primary purpose of this study is to review the literature regarding the impact on intimate relationships of adult ADHD, as well as look at the potential compounding effects of comorbid mood or substance use disorder. The secondary purpose of this paper is to examine the literature on integrative therapy to treat couples wherein at least one partner struggles with adult ADHD, with or without comorbidities. Future research and practice implications are also discussed, including the hope for focus on the positive aspects of ADHD for individuals and relationships.

Introduction

Adult attention deficit hyperactivity disorder (Adult ADHD)

Although Attention Deficit Hyperactivity Disorder (ADHD) was regarded until the end of the 20th century to be only a childhood disorder, a growing body of research has found adult manifestations. Evidence suggests a higher likelihood of childhood-onset; however, differences in symptom expression - e.g., by gender and age - complicate timely diagnosis [1,2]. While in childhood the condition tends to present only with varying levels of its signature symptoms of inattention, impulsivity, and hyperactivity, adulthood hyperactivity usually resembles restlessness; also, adult ADHD tends to present with comorbidities - e.g., obesity, insomnia, mood disorders, and addictive behaviors - each with functional impairments [1,2]. Meta-analyses of international researchers have found adult

ADHD to extend to 57 % of adults from childhood [3], and only 9.1% of young adults diagnosed with w/ADHD as children showed sustained remission of symptoms 16 years after childhood diagnosis [4], making it one of the most common mental health disorders in adulthood [2,3,5].

Adult ADHD is associated with costs across domains including education, employment, and health; for example, health problems (such as obesity), substance use disorders, and mood disorders resulted in higher medical insurance claims for adults with ADHD versus those without [6]. ADHD during adulthood can wreak havoc on personal relationships, particularly intimate ones.

The coronavirus-19 (COVID-19) pandemic has brought on many problems for individuals and personal relationships, including intimate ones. The restrictions on the lockdown during the pandemic caused significant levels of emotional

distress for all individuals and some researchers have argued that adults with ADHD would have greater levels of stress during the pandemic [7,8], as their perceived level of stress is often higher than adults with ADHD [8,9] found that higher levels of COVID-19-related anxiety were related to increased cigarette smoking and alcohol consumption in young adult males with ADHD.

As many adjust to stay-at-home-related realities such as working and schooling from home, many couples are now under significant amounts of stress. In addition to external stressors, such as possible job loss and health issues, there are also internal stressors, such as depression and anxiety, affecting individuals and their intimate relationships [10] For adults with ADHD and their partners, the stress of the pandemic may exacerbate problems, including maladaptive behaviors and poor communication.

The purpose of this study is to examine the literature on interpersonal relationship difficulties that face adults with ADHD, with and without comorbidities. Additionally, the paper explores empirical literature on integrative therapy to treat couples wherein at least one partner presents with ADHD symptoms.

Independent effects of adult ADHD on peers, family and intimate relationships

Peer and family relationships: ADHD during adulthood can wreak havoc on relationships. It has been associated with relationship difficulties at work and in friendships [11-13] ADHD symptoms hindered work relationships due to impulsive talking [12] and problems with authority, including rule-breaking [12,13]. Other ADHD-related behaviors that negatively affected adult peer relationships included: impulsivity; mood lability and lack of control over irritability, anger, or hostility; arguments and fights; forgetfulness; and inattention [11-13].

Several studies [14,15] have suggested that emotional lability is a potential dimension of adult ADHD, independent of psychiatric comorbidity symptoms. Moreover, emotional impulsiveness showed a negative effect on social relationships for adults with ADHD [14], and emotional lability was the main predictor of social functional impairment [15]. Adults with ADHD even reported avoiding certain social situations for fear of exhibiting mood instability [13].

Adult ADHD can also compromise family relationships. Michielsen, et al. [16] observed that older adults with ADHD were more likely than their non-ADHD counterparts to report feeling lonely and having few family members in their support network. Several studies found adults with ADHD more likely to suffer strained relationships with their parents than were adults without ADHD [12,13,16]. Johnston, et al. [17] posit that, as parents, adults with ADHD, due to deficits in their behavioral and emotional control, may introduce a chaotic environment, ineffective problem-solving, insubstantial child monitoring, and erratic or over-reactive discipline. In a parent training program, adults with ADHD were more likely than those without ADHD to go off-task or break rules while

interacting with their children [18]. Parents with the impulsive/hyperactive type (versus the inattentive type) of ADHD tended to overestimate their competence in parenting – compared to their observed competence – which, researchers noted, aligns with previous studies finding positive illusory bias in self-assessment by children with ADHD [19]. Pharmacotherapy for adults with ADHD gradually resulted in less negative talk, fewer commands, and increased praise toward their children, yielding their children's corresponding reduced negative behavior [20].

Intimate relationships

The presence of ADHD in at least one partner can contribute to intimate relationship problems. Adults with ADHD reported less satisfaction in, and more trouble navigating, romantic relationships, and were more likely to be divorced than adults without ADHD [1,16,21,22]. In a longitudinal study, adults diagnosed during childhood with ADHD were three times likelier to be divorced than adults in a comparison group [21], much as was the case in a study wherein the likelihood of lifetime singlehood or history of divorce among older adults with ADHD was three times higher than among those without the disorder [16].

Exploration into the effects of adult ADHD on intimate relationships has revealed associations between ADHD symptoms and certain relationship elements. Spouses of partners with ADHD reported lower intimacy and less satisfaction in their marriages than spouses of non-ADHD partners [23]. The severity of ADHD symptoms among college students was positively correlated with fear of intimacy, particularly in the context of reflection about past intimacy problems, and also positively correlated with cynicism about the possibility of ever being close with a partner; however, fear of intimacy was not associated with lowered self-assessment of relationship competence (e.g., communication skills, romantic appeal) – the latter result, researchers noted, corresponded with research showing positive illusory bias in self-assessment among children with ADHD [24]. Also, increased ADHD symptomology, though linked with fear of intimacy, was nonetheless associated with risky sexual behavior [24].

ADHD's effect on empathy revealed deficits that would presume to hinder intimate relationships. A literature review cited a body of research demonstrating deficits in facial and vocal emotion recognition as well as in cognitive empathy among adults with ADHD [25]. Roy, et al. [26] found that, in a sample of adults with ADHD, 15% were found to be on the autism spectrum (associated with deficits in emotional and cognitive empathy), versus 0.06% in the general population.

Symptomological dimensions of adult ADHD have revealed assorted intimate relationship outcomes. Adults with primary hyperactivity symptoms of ADHD were more likely than those with primarily impulsivity or inattention symptoms to report divorce or dissatisfaction in their intimate relationships [27,28]. Canu, et al. [29] found that symptoms of impulsivity and hyperactivity combined with inattention (that is, the symptoms of the combined type of adult ADHD) were more

likely to be associated with low conflict resolution and less relationship satisfaction than symptoms of the inattentive type or than the absence of ADHD symptoms. College students with self-reported symptoms of the combined type of ADHD reported lower romantic relationship quality than did students without ADHD symptoms [30]. Interestingly, among young adults, hyperactive/impulsive symptoms predicted past the fear of intimacy, while inattentive symptoms predicted current pessimism about intimacy [24]. Both genders with combined-type ADHD tended to report lower relationship quality than did subjects with no ADHD symptoms; only for females, each type of ADHD symptom independently predicted lower reported relationship quality, mediated in each case by emotional dysregulation and hostile conflict [30].

Symptoms of ADHD have been associated with intimate partner violence (IPV), anger, hostile conflict, and low conflict resolution. Adult ADHD symptoms were risk factors for IPV among a sample of adults without other IPV risk factors (e.g., childhood maltreatment or substance use) [31]. Romero-Martinez, et al. [32] identified adult ADHD's impulsiveness and inattentiveness to be related to the risk of IPV, especially regarding difficulties decoding facial expression and exercising cognitive flexibility, but a study examining links between adult ADHD and community violence found an association between IPV and hyperactivity [33]. Emotional lability was present among ADHD-affected adults without comorbidities, and anger was the emotion most related to antisocial behavior [15]. Likewise, Bruner, et al. [30] found that emotion dysregulation and hostile conflict mediated reports of low relationship quality among women with ADHD; and Canu, et al. [29] found low conflict resolution associated with reported dissatisfaction in relationship quality among couples where one partner had ADHD.

Of note is that researchers observed positive illusory bias in self-assessment of relationship skills by adults with ADHD, who rated themselves as more competent than was observed by their partners, friends, or family members; moreover, increased discrepancy between self-assessment and observed assessment of symptom severity predicted increased positive illusory bias [34]. Similarly, Marsh, et al. [24] found that increased symptom severity was not associated with decreased self-assessment of relationship skills.

Two common comorbidities of adult ADHD: Mood and substance use disorders

A significant difference from childhood ADHD is that the adult form is more likely to present with comorbidities.

Katzman, et al. [1] report on research showing that as many as 80% of adults with ADHD have at least one co-existing psychiatric disorder; the highest risks are mood disorders and anxiety disorders. Libutzski, et al. [6] found that the costliest comorbidities were obesity, SUDs, mood, and anxiety disorders. The comorbid psychiatric disorders, much like comorbid somatic conditions, share neurobiological similarities to adult ADHD, which can complicate diagnosis and treatment [1].

The effects of comorbid mood and substance use disorders deserve in-depth attention, given their prevalence. Katzman, et al. [1] noted that, while only 11% of adults with ADHD receive treatment, the diagnosis triples the likelihood of Major Depressive Disorder (MDD) and quadruples the likelihood of any mood disorder, with reported rates among adults with ADHD of depression as high as 53.3% and bipolar disorder (BP) as high as 47.1%; meanwhile, SUDs are approximately twice as likely among adults with ADHD as among adults in the general population. The effects of adult ADHD on comorbid SUDs or mood disorders have been observed to be bidirectional in terms of prevalence [35], severity, and negative outcomes [36].

Given that there is limited research on the impact on intimate relationships when ADHD is concomitant with at least one comorbidity, the independent effects on intimate relationships of mood and substance use disorders will briefly be explored before considering the potential compounding effect of ADHD.

Independent effects of comorbidities on intimate relationships

Mood disorders: Depression: Depression alone has been found to exert a variety of negative effects on intimate relationships. For example, young women with depression reported difficulty developing or maintaining intimate relationships; however, they also reported high rates of sexual activity, including unsafe sex, for temporary mitigation of depressive symptoms and because of increased impulsivity, apathy, and alcohol use [37].

Like adult ADHD symptoms, depressive symptoms were found to reduce affective and cognitive functioning necessary for empathy [38] and were antecedent and consequent to conflict in romantic relationships [39,40] and to decreased marital satisfaction [39,41].

Bipolar disorder: Bipolar disorder (BP), too, has been found to negatively impact intimate relationship functioning and satisfaction. A 2017 literature review by Grover, et al. [42] cited multiple findings of poorer marital adjustment in couples affected by BP compared to controls. A majority of spouses of partners with BP expressed marital distress concerning family finances, career decisions, and completion of household tasks [43]. Parker, et al. [44] found that subjects with BP were more likely to lose their partners than were those with unipolar depressive disorder.

Factors of BP underlying marital dissatisfaction were studied. As with ADHD, deficiencies in components of empathy such as emotion recognition and perspective taking were observed in partners with BP [45]. Granek, et al. [46] found that BP patients were unaware of their partners' feelings of resentment and self-sacrifice, while their spouses were unaware of the patients' feelings of loneliness and social distress, despair about impaired social and professional development, and burdensomeness of self-care; spouses and patients alike reported that BP impacted their relationships with elevated volatility, anger, lack of trust, and reduced number of children.

Substance use disorders: Research abounds citing negative outcomes of SUD on intimate relationships. Bekircan, et al. [47] found SUD associated with an increased divorce rate and low marital adjustment. Cranford [48] observed significantly higher rates of lifetime marital dissolution among subjects with lifetime alcohol use disorder than among those without it. Pachado, et al. [49] saw a positive association between increased frequency of crack cocaine use and severity of intimate relationship problems. A 2012 Brazilian study found a decreased quality of life for probands with SUD than for controls across almost every domain and in the overall score – with worse scores observed only among probands' live-in family members [50].

Compounding effects of comorbidities on intimate relationships affected by adult ADHD

Research is extremely limited on outcomes for couples affected by ADHD and comorbidity, but given the negative effects on relationships of adult ADHD alone and of mood disorders and SUDs alone, the presupposition would be compounding negative effects. Research results incidental to other primary investigations seem to support the notion. For instance, Pachado, et al. [49], while studying the quality of life among subjects with SUD, found that coexisting adult ADHD exacerbated the severity of problems in interpersonal relationships. Gonzalez, et al. [33], looking at associations between adult ADHD and violent behavior in the community, found that severe and repetitive acts of violence, including against intimate partners, were linked with severe ADHD symptoms, which in turn tended to be accompanied by coexisting psychopathologies such as SUD and mood dysregulation. Wunderli, et al. [51] observed an additive negative effect on social and emotional empathy among adults with ADHD who were also using cocaine.

Integrative interventions for couples distressed by compounded effects of adult ADHD and comorbidities

Practitioners working with troubled couples should be knowledgeable about the possibility of, presentation of, appropriate screening procedures for, and potential outcomes of adult ADHD [52] – especially if symptoms are unrecognized by the partners – and be able to discern whether symptoms of mood disorder or SUD are comorbid; practitioners also should note that, since research points to emotional lability as a potential core aspect of ADHD, distinguishing between core and comorbid mood symptoms may prove challenging.

Research is lacking in couples therapy where ADHD is comorbid with a mood or substance use disorder. Similarly, integrative treatment – that is, combination interventions that mix couples therapy approaches with interventions for ADHD and other presenting issues – is limited, but has demonstrated some success [22] Integrative couples therapy for ADHD can introduce evidence-based psychosocial interventions (with or without pharmacotherapy) found effective for ADHD symptoms, such as cognitive behavior therapy (CBT) [1,53], mindfulness [54] and behavioral skills training [1,55].

One such integrated approach for couples affected by ADHD implemented six weeks of 1.5-hour weekly group sessions that combined evidence-based couples therapy with CBT for ADHD [56]. The pilot study focused on promoting ADHD self-management and improving interpersonal communication and problem-solving skills. Each week, core components of CBT for adult ADHD were integrated with an evidence-based relationship distress prevention program [57]. CBT for ADHD included psychoeducation, relationship-building skills practice, learning to distinguish, accept, and tolerate unchangeable ADHD-related behaviors, and reframing of differences as potential relationship strengths. Wymbs & Molina [56] argue that it is important to include the partner in therapy to help encourage the self-regulation, such as attentiveness and behavioral self-control, of the partner with ADHD. Each session also included a discussion of (a) accepting differences in partner behavior as strengths of the relationship, and (b) tolerance of minor, inappropriate behaviors that partners cannot change. After the program, couples reported reduced relationship negativity and fewer conflict-inducing behaviors; regarding reduced relationship negativity, the effect size was larger for male respondents. Also, while participants with ADHD self-reported no effect of treatment on their conflict-inducing behaviors (e.g. doesn't respond when spoken to, pay bills late, doesn't remember being told things, takes out frustrations on me), their partners did find a small effect, underscoring the importance of including significant others in ADHD treatment to help corroborate assessments of ADHD symptom improvement.

A study of integrative treatment for couples wherein ADHD and IPV were both present, as well as, in some cases, comorbid mood or substance use disorders, implemented pharmacotherapy, psychoeducation, and ADHD coaching, along with treatment as usual for IPV [58]. As noted earlier, individuals with ADHD are at increased risk for IPV perpetration [32,33]. In this year-long longitudinal study with IPV offenders with ADHD in a forensic outpatient setting, a treatment that was focused on safety planning, enhanced communication skills, and solution-focused or emotion-focused couples' therapy was provided if needed and if possible. Both ADHD symptoms and IPV symptoms significantly decreased over time, and researchers concluded that the decrease in IPV frequency was directly related to the decrease in ADHD symptoms, suggesting that ADHD symptom reduction was essential to IPV treatment whether or not a comorbid mood or substance disorder was present [58].

Marin, et al. [59] described a study of multimodal group therapy with ten sessions for adults with ADHD. The integrative model incorporates problem-solving, mindfulness, CBT, and systematic family therapy. While their study did not exclude individuals with comorbid conditions, such as depression, anxiety, and bipolar disorder, those with severe concomitant substance abuse and/or severe personality disorders were excluded. The family systems sessions focused primarily on individuals' families of origin to uncover behavioral patterns with a direct negative impact on intimate relationships.

Future direction: Practice and research implications

Practitioners must be mindful not only of the complicated and varied symptomological dimensions of adult ADHD – including emotional lability, which has not been officially acknowledged as a core symptom of adult ADHD, despite a body of research linking it with the condition – but also of adult ADHD's potential effects on couples, despite limited scholarly research on the latter. Many couples may be unaware of ADHD symptoms, so the condition may lurk undiagnosed in one or both partners. Clinicians must model sensitivity regarding potential deep-seated and longstanding shame concerning symptoms and attendant functional impairments in the partner with ADHD, address emotional distress, born of the effects of ADHD on the relationship, for which the partner without ADHD may require treatment, and assist couples to identify strengths that ADHD may bring to the individuals and their relationship. Simultaneously, mental health providers must be on the lookout for psychiatric comorbidities of ADHD – parsing overlapping symptoms that could confuse diagnoses – that may demand interventions alongside the ADHD itself. An integrated treatment approach that brings together couples counseling techniques, as well as interventions for ADHD and its comorbidities, could prove difficult – suggesting the need for consultation with other mental health professionals well-versed in ADHD issues – but also gratifying and successful for all involved.

The limited amount of research on the effects of ADHD on couples, and into whether and how comorbidities may compound effects, urges exploration in these areas [22]. Further empirical research into interventions for couples affected by adult ADHD, whether with or without specific comorbidities, may shed light on approaches that could help spare individuals, couples, and their families unnecessary conflict and dissolution, and allow focus on positive aspects of living with ADHD.

Conclusion

Adult ADHD and its common comorbidities of mood and substance use disorders each independently may negatively affect intimate relationships, with potentially compounding effects. Further research is needed to confirm the compounding effects, as is awareness by couples therapy practitioners of the likely possibility that presenting problems could be partly or largely driven by core, and possibly comorbidity-complicated, adult ADHD in one or both partners in a distressed relationship. Although it may be difficult to parse psychopathological factors at play in relationship discord due to overlapping and bidirectionally exacerbated symptoms of adult ADHD and its comorbidities (McGough, 2016), integrative interventions that address ADHD as well as each of its possibly present comorbidities may provide structure, relief, and hope for adult ADHD-impacted unions, as well as permit recognition of strengths ADHD brings to individuals and their relationships. Finally, as seen by the COVID-19 pandemic, contextual factors play a role when working with couples and underscore the importance of employing integrative interventions that address multifaceted issues, while utilizing the strengths of the couple and the individuals within them.

References

- Katzman MA, Bilkey TS, Chokka PR, Fallu A, Klassen LJ. Adult ADHD and comorbid disorders: clinical implications of a dimensional approach. *BMC Psychiatry*. 2017 Aug 22;17(1):302. doi: 10.1186/s12888-017-1463-3. PMID: 28830387; PMCID: PMC5567978.
- Posner J, Polanczyk GV, Sonuga-Barke E. Attention-deficit hyperactivity disorder. *Lancet*. 2020 Feb 8;395(10222):450-462. doi: 10.1016/S0140-6736(19)33004-1. Epub 2020 Jan 23. PMID: 31982036; PMCID: PMC7880081.
- Fayyad J, Sampson NA, Hwang I, Adamowski T, Aguilar-Gaxiola S, Al-Hamzawi A, Andrade LH, Borges G, de Girolamo G, Florescu S, Gureje O, Haro JM, Hu C, Karam EG, Lee S, Navarro-Mateu F, O'Neill S, Pennell BE, Piazza M, Posada-Villa J, Ten Have M, Torres Y, Xavier M, Zaslavsky AM, Kessler RC; WHO World Mental Health Survey Collaborators. The descriptive epidemiology of DSM-IV Adult ADHD in the World Health Organization World Mental Health Surveys. *Atten Defic Hyperact Disord*. 2017 Mar;9(1):47-65. doi: 10.1007/s12402-016-0208-3. Epub 2016 Nov 19. PMID: 27866355; PMCID: PMC5325787.
- Sibley MH. 31.1 variable patterns of remission from ADHD in the multimodal treatment study of ADHD (MTA). *Journal of the American Academy of Child & Adolescent Psychiatry*. 2021; 60(10). doi:10.1016/j.jaac.2021.07.203
- Kessler RC, Adler LA, Barkley R, Biederman J, Conners CK, Faraone SV, Greenhill LL, Jaeger S, Secnik K, Spencer T, Ustün TB, Zaslavsky AM. Patterns and predictors of attention-deficit/hyperactivity disorder persistence into adulthood: results from the national comorbidity survey replication. *Biol Psychiatry*. 2005 Jun 1;57(11):1442-51. doi: 10.1016/j.biopsych.2005.04.001. PMID: 15950019; PMCID: PMC2847347.
- Libutzki B, Ludwig S, May M, Jacobsen RH, Reif A, Hartman CA. Direct medical costs of ADHD and its comorbid conditions on basis of a claims data analysis. *Eur Psychiatry*. 2019 May;58:38-44. doi: 10.1016/j.eurpsy.2019.01.019. Epub 2019 Feb 22. PMID: 30802682.
- Adamou M, Fullen T, Galab N, Mackintosh I, Abbott K, Lowe D, Smith C. Psychological Effects of the COVID-19 Imposed Lockdown on Adults with Attention Deficit/Hyperactivity Disorder: Cross-Sectional Survey Study. *JMIR Form Res*. 2020 Dec 15;4(12):e24430. doi: 10.2196/24430. PMID: 33108312; PMCID: PMC7744136.
- Evren C, Evren B, Dalbudak E, Topcu M, Kutlu N. Alcohol- and cigarette-use-related behaviors across gender, dysfunctional COVID-19 anxiety, and the presence of probable ADHD during the pandemic: A cross-sectional study in a sample of Turkish young adults. *Dusunen Adam: Journal of Psychiatry & Neurological Sciences*. 2021; 34(4):383-391. <https://doi.org/10.14744/DAJPNS.2021.00161>
- Krause KH, Krause J, Trott GE. Das hyperkinetische Syndrom (Aufmerksamkeitsdefizit-/Hyperaktivitätsstörung) des Erwachsenenalters [Hyperkinetic syndrome (attention deficit-/hyperactivity disorder) in adulthood]. *Nervenarzt*. 1998 Jul;69(7):543-56. German. doi: 10.1007/s001150050311. PMID: 9715472.
- Pietromonaco PR, Overall NC. Applying relationship science to evaluate how the COVID-19 pandemic may impact couples' relationships. *Am Psychol*. 2021 Apr;76(3):438-450. doi: 10.1037/amp0000714. Epub 2020 Jul 23. PMID: 32700937.
- Bodalski EA, Knouse LE, Kovalev D. Adult ADHD, emotion dysregulation, and functional outcomes: Examining the role of emotion regulation strategies. *Journal of Psychopathology and Behavioral Assessment*. 2018; 41(1): 81-92. doi:10.1007/s10862-018-9695-1
- Brod M, Pohlman B, Lasser R, Hodgkins P. Comparison of the burden of illness for adults with ADHD across seven countries: a qualitative study. *Health Qual Life Outcomes*. 2012 May 14;10:47. doi: 10.1186/1477-7525-10-47. PMID: 22583562; PMCID: PMC3489580.
- Pitts M, Mangle L, Asherson P. Impairments, diagnosis and treatments associated with attention-deficit/hyperactivity disorder (ADHD) in UK adults:



- results from the lifetime impairment survey. *Arch Psychiatr Nurs.* 2015 Feb;29(1):56-63. doi: 10.1016/j.apnu.2014.10.001. Epub 2014 Oct 31. PMID: 25634876.
14. Barkley RA, Fischer M. The unique contribution of emotional impulsiveness to impairment in major life activities in hyperactive children as adults. *J Am Acad Child Adolesc Psychiatry.* 2010 May;49(5):503-13. doi: 10.1097/00004583-201005000-00011. PMID: 20431470.
 15. Skirrow C, Asherson P. Emotional lability, comorbidity and impairment in adults with attention-deficit hyperactivity disorder. *J Affect Disord.* 2013 May;147(1-3):80-6. doi: 10.1016/j.jad.2012.10.011. Epub 2012 Dec 4. PMID: 23218897.
 16. Michielsen M, Comijs HC, Aartsen MJ, Semeijn EJ, Beekman AT, Deeg DJ, Kooij JJ. The relationships between ADHD and social functioning and participation in older adults in a population-based study. *J Atten Disord.* 2015 May;19(5):368-79. doi: 10.1177/1087054713515748. Epub 2013 Dec 30. PMID: 24378286.
 17. Johnston C, Mash EJ, Miller N, Ninowski JE. Parenting in adults with attention-deficit/hyperactivity disorder (ADHD). *Clinical Psychology Review.* 2012; 32(4): 215-228. doi:10.1016/j.cpr.2012.01.007
 18. Babinski DE, Waxmonsky JG, Waschbusch DA, Pelham WE Jr. Behavioral Observations of Parents With ADHD During Parent Training. *J Atten Disord.* 2018 Nov;22(13):1289-1296. doi: 10.1177/1087054715580843. Epub 2015 Apr 13. PMID: 25870203.
 19. Lui JHL, Johnston C, Lee CM, Lee-Flynn SC. Parental ADHD symptoms and self-reports of positive parenting. *J Consult Clin Psychol.* 2013 Dec;81(6):988-998. doi: 10.1037/a0033490. Epub 2013 Jun 24. PMID: 23796318.
 20. Waxmonsky JG, Waschbusch DA, Babinski DE, Humphrey HH, Alfonso A, Crum KI, Bernstein M, Slavec J, Augustus JN, Pelham WE. Does pharmacological treatment of ADHD in adults enhance parenting performance? Results of a double-blind randomized trial. *CNS Drugs.* 2014 Jul;28(7):665-77. doi: 10.1007/s40263-014-0165-3. PMID: 24796970.
 21. Klein RG, Mannuzza S, Olazagasti MA, Roizen E, Hutchison JA, Lashua EC, Castellanos FX. Clinical and functional outcome of childhood attention-deficit/hyperactivity disorder 33 years later. *Arch Gen Psychiatry.* 2012 Dec;69(12):1295-303. doi: 10.1001/archgenpsychiatry.2012.271. PMID: 23070149; PMCID: PMC3597443.
 22. Wymbs BT, Canu WH, Sacchetti GM, Ranson LM. Adult ADHD and romantic relationships: What we know and what we can do to help. *J Marital Fam Ther.* 2021 Jul;47(3):664-681. doi: 10.1111/jmft.12475. Epub 2021 Jan 9. PMID: 33421168.
 23. Ben-Naim S, Marom I, Krashin M, Gifter B, Arad K. Life with a partner with ADHD: The moderating role of intimacy. *Journal of Child and Family Studies.* 2017; 26(5): 1365-1373. doi:10.1007/s10826-016-0653-9
 24. Marsh LE, Norvilitis JM, Ingersoll TS, Li B. ADHD symptomatology, fear of intimacy, and sexual anxiety and behavior among college students in China and the United States. *J Atten Disord.* 2015 Mar;19(3):211-21. doi: 10.1177/1087054712453483. Epub 2012 Aug 14. PMID: 22893505.
 25. Bora E, Pantelis C. Meta-analysis of social cognition in attention-deficit/hyperactivity disorder (ADHD): comparison with healthy controls and autistic spectrum disorder. *Psychol Med.* 2016 Mar;46(4):699-716. doi: 10.1017/S0033291715002573. Epub 2015 Dec 28. PMID: 26707895.
 26. Roy M, Ohlmeier MD, Osterhagen L, Prox-Vagedes V, Dillo W. Asperger Syndrome: a frequent comorbidity in first diagnosed adult ADHD patients? *Psychiatr Danub.* 2013 Jun;25(2):133-41. PMID: 23793277.
 27. Das D, Cherbuin N, Butterworth P, Anstey KJ, Eastaer S. A population-based study of attention deficit/hyperactivity disorder symptoms and associated impairment in middle-aged adults. *PLoS One.* 2012;7(2):e31500. doi: 10.1371/journal.pone.0031500. Epub 2012 Feb 8. PMID: 22347487; PMCID: PMC3275565.
 28. Moyá J, Stringaris AK, Asherson P, Sandberg S, Taylor E. The impact of persisting hyperactivity on social relationships: a community-based, controlled 20-year follow-up study. *J Atten Disord.* 2014 Jan;18(1):52-60. doi: 10.1177/1087054712436876. Epub 2012 Mar 21. PMID: 22441888; PMCID: PMC3867339.
 29. Canu WH, Tabor LS, Michael KD, Bazzini DG, Elmore AL. Young adult romantic couples' conflict resolution and satisfaction varies with partner's attention-deficit/hyperactivity disorder type. *J Marital Fam Ther.* 2014 Oct;40(4):509-24. doi: 10.1111/jmft.12018. Epub 2013 Apr 25. PMID: 24749971.
 30. Bruner MR, Kuryluk AD, Whitton SW. Attention-deficit/hyperactivity disorder symptom levels and romantic relationship quality in college students. *J Am Coll Health.* 2015;63(2):98-108. doi: 10.1080/07448481.2014.975717. Epub 2015 Jan 20. PMID: 25350392.
 31. Wymbs BT, Dawson AE, Suhr JA, Bunford N, Gidycz CA. ADHD Symptoms as Risk Factors for Intimate Partner Violence Perpetration and Victimization. *J Interpers Violence.* 2017 Mar;32(5):659-681. doi:10.1177/0886260515586371. Epub 2016 Jul 10. PMID: 26025345.
 32. Romero-Martínez Á, Lila M, Moya-Albio L. The importance of impulsivity and attention switching deficits in perpetrators convicted for intimate partner violence. *Aggress Behav.* 2019 Mar;45(2):129-138. doi: 10.1002/ab.21802. Epub 2018 Nov 25. PMID: 30474120.
 33. González RA, Kallis C, Coid JW. Adult attention deficit hyperactivity disorder and violence in the population of England: does comorbidity matter? *PLoS One.* 2013 Sep 24;8(9):e75575. doi: 10.1371/journal.pone.0075575. PMID: 24086575; PMCID: PMC3782445.
 34. Jiang Y, Johnston C. The relationship between ADHD symptoms and competence as reported by both self and others. *J Atten Disord.* 2012 Jul;16(5):418-26. doi: 10.1177/1087054710392541. Epub 2011 Feb 2. PMID: 21289236.
 35. Anastopoulos AD, DuPaul GJ, Weyandt LL, Morrissey-Kane E, Sommer JL, Rhoads LH, Murphy KR, Gormley MJ, Gudmundsdottir BG. Rates and Patterns of Comorbidity Among First-Year College Students With ADHD. *J Clin Child Adolesc Psychol.* 2018 Mar-Apr;47(2):236-247. doi: 10.1080/15374416.2015.1105137. Epub 2016 Feb 6. PMID: 26852645; PMCID: PMC4976041.
 36. Bron TI, Bijlenga D, Verduijn J, Penninx BW, Beekman AT, Kooij JJ. Prevalence of ADHD symptoms across clinical stages of major depressive disorder. *J Affect Disord.* 2016 Jun;197:29-35. doi: 10.1016/j.jad.2016.02.053. Epub 2016 Mar 2. PMID: 26970265.
 37. Burke PJ, Katz-Wise SL, Spalding A, Shrier LA. Intimate relationships and sexual behavior in young women with depression. *Journal of Adolescent Health.* 2018; 63(4): 429-434. doi:10.1016/j.jadohealth.2018.05.022
 38. Schreiter S, Pijnenborg GH, Aan Het Rot M. Empathy in adults with clinical or subclinical depressive symptoms. *J Affect Disord.* 2013 Aug 15;150(1):1-16. doi: 10.1016/j.jad.2013.03.009. Epub 2013 May 11. PMID: 23668900.
 39. Kouros CD, Cummings EM. Transactional relations between marital functioning and depressive symptoms. *Am J Orthopsychiatry.* 2011 Jan;81(1):128-38. doi: 10.1111/j.1939-0025.2010.01080.x. PMID: 21219284; PMCID: PMC3388777.
 40. Mackinnon SP, Sherry SB, Antony MM, Stewart SH, Sherry DL, Hartling N. Caught in a bad romance: perfectionism, conflict, and depression in romantic relationships. *J Fam Psychol.* 2012 Apr;26(2):215-25. doi: 10.1037/a0027402. Epub 2012 Feb 20. PMID: 22353007.
 41. Kronmüller KT, Backenstrass M, Victor D, Postelnicu I, Schenkenbach C, Joest K, Fiedler P, Mundt C. Quality of marital relationship and depression: results of a 10-year prospective follow-up study. *J Affect Disord.* 2011 Jan;128(1-2):64-71. doi: 10.1016/j.jad.2010.06.026. Epub 2010 Aug 2. PMID: 20674034.
 42. Grover S, Nehra R, Thakur A. Bipolar affective disorder and its impact on various aspects of marital relationship. *Ind Psychiatry J.* 2017 Jul-Dec;26(2):114-120. doi: 10.4103/ipj.ipj_15_16. PMID: 30089956; PMCID: PMC6058431.



43. Drisya P, Bindumol K, Saleem TK, Narayan D. Marital problems among partners of patients with bipolar affective disorder. *Indian Journal of Psychological Medicine*. 2019; 41(5): 448-454. doi:10.4103/ijpsym.ijpsym_409_18
44. Parker G, McCraw S, Hadzi-Pavlovic D. Unipolar and bipolar patient responses to a new scale measuring the consequences of depression. *Psychiatry Res*. 2015 Dec 15;230(2):676-81. doi: 10.1016/j.psychres.2015.10.024. Epub 2015 Oct 28. PMID: 26545613.
45. Seidel EM, Habel U, Finkelmeyer A, Hasmann A, Dobmeier M, Derntl B. Risk or resilience? Empathic abilities in patients with bipolar disorders and their first-degree relatives. *J Psychiatr Res*. 2012 Mar;46(3):382-8. doi: 10.1016/j.jpsychires.2011.11.006. Epub 2011 Nov 30. PMID: 22133461.
46. Granek L, Danan D, Bersudsky Y, Osher Y. Living with bipolar disorder: the impact on patients, spouses, and their marital relationship. *Bipolar Disord*. 2016 Mar;18(2):192-9. doi: 10.1111/bdi.12370. Epub 2016 Feb 18. PMID: 26890335.
47. Bekircan E, Tanriverdi D. Adverse effects on people's lives and functioning and marital adjustment of substance use disorder in the Turkish population. *Journal of Substance Use*. 2019; 25(2): 205-210. doi:10.1080/14659891.2019.1675786
48. Cranford JA. DSM-IV alcohol dependence and marital dissolution: evidence from the National Epidemiologic Survey on Alcohol and Related Conditions. *J Stud Alcohol Drugs*. 2014 May;75(3):520-9. doi: 10.15288/jsad.2014.75.520. PMID: 24766764; PMCID: PMC4002864.
49. Pachado MP, Scherer JN, Guimarães LSP, von Diemen L, Pechansky F, Kessler FHP, de Almeida RMM. Markers for Severity of Problems in Interpersonal Relationships of Crack Cocaine Users from a Brazilian Multicenter Study. *Psychiatr Q*. 2018 Dec;89(4):923-936. doi: 10.1007/s11126-018-9590-7. PMID: 30019298.
50. Moreira Tde C, Figueiró LR, Fernandes S, Justo FM, Dias IR, Barros HM, Ferigolo M. Quality of life of users of psychoactive substances, relatives, and non-users assessed using the WHOQOL-BREF. *Cien Saude Colet*. 2013 Jul;18(7):1953-62. doi: 10.1590/s1413-81232013000700010. PMID: 23827899.
51. Wunderli M, Vonmoos M, Preller K, Hulka L, Baumgartner M, Seifritz E, Quednow B. P.6.d.022 Cognitive and emotional impairments in adults with attention-deficit/hyperactivity disorder and cocaine use: Mutual effects of an unholy alliance. *European Neuropsychopharmacology*. 2015; 25. doi:10.1016/s0924-977x(15)30883-x
52. MCGough JJ. Treatment controversies in adult ADHD. *American Journal of Psychiatry*. 2015; 173(10): 960-966. doi:10.1176/appi.ajp.2016.15091207
53. Knouse LE, Teller J, Brooks MA. Meta-analysis of cognitive behavioural treatments for adult ADHD. *Journal of Consulting and Clinical Psychology*. 2017; 85(7): 737-750. <https://doi.org/10.1037/ccp0000216>
54. Bueno VF, Kozasa EH, da Silva MA, Alves TM, Louzã MR, Pompéia S. Mindfulness Meditation Improves Mood, Quality of Life, and Attention in Adults with Attention Deficit Hyperactivity Disorder. *Biomed Res Int*. 2015;2015:962857. doi: 10.1155/2015/962857. Epub 2015 Jun 7. PMID: 26137496; PMCID: PMC4475526.
55. LaCount PA, Hartung CM, Shelton CR, Stevens AE. Efficacy of an Organizational Skills Intervention for College Students With ADHD Symptomatology and Academic Difficulties. *J Atten Disord*. 2018 Feb;22(4):356-367. doi: 10.1177/1087054715594423. Epub 2015 Aug 7. PMID: 26253149.
56. Wymbs BT, Molina BS. Integrative Couples Group Treatment for Emerging Adults With ADHD Symptoms. *Cognitive and Behavioral Practice*. 2015; 22(2): 161-171.
57. Markman HJ, Stanley SM, Blumberg SL, Jenkins NH, Whiteley C. 12 hours to a great marriage: A step-by-step guide for making love last. San Francisco, CA: Jossey-Bass. 2004.
58. Buitelaar NJ, Posthumus JA, Bijlenga D, Buitelaar JK. The impact of ADHD treatment on intimate partner violence in a forensic psychiatry setting. *Journal of Attention Disorders*. 2019; 108705471987950.
59. Marin A, Senis E, Hastie-Taliedo G, Backenstrass M. A Pilot Method for Multimodal Group Therapy for Adults with ADHD. *International Journal of Integrative Psychotherapy*. 2014; 5(1): 34.

Discover a bigger Impact and Visibility of your article publication with Peertechz Publications

Highlights

- ❖ Signatory publisher of ORCID
- ❖ Signatory Publisher of DORA (San Francisco Declaration on Research Assessment)
- ❖ Articles archived in worlds' renowned service providers such as Portico, CNKI, AGRIS, TDNet, Base (Bielefeld University Library), CrossRef, Scilit, J-Gate etc.
- ❖ Journals indexed in ICMJE, SHERPA/ROMEO, Google Scholar etc.
- ❖ OAI-PMH (Open Archives Initiative Protocol for Metadata Harvesting)
- ❖ Dedicated Editorial Board for every journal
- ❖ Accurate and rapid peer-review process
- ❖ Increased citations of published articles through promotions
- ❖ Reduced timeline for article publication

Submit your articles and experience a new surge in publication services (<https://www.peertechz.com/submission>).

Peertechz journals wishes everlasting success in your every endeavours.