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Quality and Quantity of Social Support in College Students with ADHD Symptomatology

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Quality and Quantity of Social Support in College Students with ADHD Symptomatology

Chloe Reeble




Attention-Deficit Hyperactivity Disorder (ADHD)

- What Is ADHD?
 - ADHD is the persistent pattern of inattention and hyperactivity-impulsivity that interferes with functioning and development (American Psychiatric Association, 2013)
 - ADHD can be comorbid with anxiety and depression (DSM-5, 2013)
 - Functional impairment
 - Executive functioning theory
- Social impairment as a result of ADHD
 - Students at high risk for ADHD report low social support and connectedness as well as weak relationships with peers (Kim et al., 2015)
 - Experience familial problems and have difficulties developing friendships (Kim et al., 2015; Nigg & Barkley, 2014)



College Students with ADHD

- Emerging adulthood
 - Ages 18-25 years of age, or typical college age (Arnett, 2000)
 - 2-8% of college students have clinically significant levels of ADHD (DuPaul et al., 2009)
 - Transitioning from relying on the social support from parents and family to their main sources of support being their peers (Meaux et al., 2009)
 - Challenges
 - Lower grades and graduation rates (Barkley et al., 2011; Frazier et al., 2007)
 - Poor time management and organizational skills, poor reading and study skills, and difficulty staying focused (DuPaul et al., 2009; Meaux et al., 2009)
 - Unaware of resources and opportunities that are available for help (Meaux et al., 2009).
- 



Social Support

- What is social support
 - Real or perceived help an individual feels they receive (Lara et al., 1998)
 - “a network of family, friends, neighbors, and community members that is available in times of need to give psychological, physical, and financial help” (National Cancer Institute, n.d.)
- Quality Vs. Quantity
 - Quality = adequacy of support
 - Quantity = size of support system



Social Support in Mental Health

- Stress and coping perspective theory (Lakey & Cohen, 2000)
- Previous research centered around social support as a protective factor in the context of physical health
- More recently research has begun examining it in the context of mental health
- Benefits of Social Support
 - Fewer depression symptoms (Bjornestad et al., 2019)
 - Fewer anxiety symptoms (Jeong & An, 2017)
 - Lower chance of having experienced PTSD after a traumatic event (Platt, et al., 2014)
 - Higher resiliency (Puckett, et al., 2019)
 - Reduced stress (Herbell & Zauszniewski, 2019)
 - Greater life satisfaction (Harasemiw et al., 2019)



Current Study

- Importance
 - College students with ADHD have difficulties with executive functioning
 - Related to functional life impairments
 - If students also lack the necessary social support, difficulties may be exacerbated
 - Present study can help us understand the nature of social support for college students with ADHD
 - Understand how this affects other ADHD-related problems
- Gap in research
 - To date no research directly examines the effects of and comparison between quality versus quantity of social support for college students with ADHD
 - Insufficient evidence to support a specific hypothesis as to sex differences
 - Important to examine sex differences among individuals with ADHD (Hartung & Lefler, 2019)



Hypotheses

1. The quality of social support will moderate the effect of ADHD symptoms on overall impairment, after controlling for anxiety, depression, and stress.
1. The quantity of social support will moderate the effect of ADHD symptoms on overall impairment, after controlling for anxiety, depression, and stress.



Method

- Exclusion Criteria
 - $N=3,268$ Participants Recruited
 - Total of 705 participants were removed from the analyses
 - 575 submitted the survey faster than it was possible to read
 - 128 missing two or more attention checks
 - 2 missing data
 - Participants with missing data on individual scales will be dropped list-wise
- Participants
 - $N= 2563$ Undergraduate Students
 - 98.2% ages 18-25 ($M=19.26$, $SD=1.37$)
 - 67.3% White, 7.3% Asian or Pacific Islander, 5.8% Black, 8.5% LatinX/Hispanic, 1.7% Middle Eastern, 0.3% Native American/American Indian, and 7.1% multi-racial
 - 62.4% Cis-Hetero Female; 21.6% cis-hetero Male, and 16.0% sexual and gender minority



Method Cont.

- A-priori power analysis, linear multiple regression, 3 predictors, G*Power (Faul et al., 2007)
 - Effect size of $f^2 = .02$, alpha level of .05
 - Recommended to have 863 participants
 - $N= 2,563$, adequate power assumed
- Procedure
 - Undergraduate college students from six universities
 - Multi-site study
 - 2 waves; spring & fall 2020
 - Students from our university were recruited via SONA
 - Students participated in a qualtrics study with the following measures



Measures

1. Demographics Form
 - age, biological sex, gender identity, race/ethnicity, and other demographic information
1. DSM-5 ADHD symptoms (American Psychiatric Association, 2013)
 - “Often easily distracted by extraneous stimuli”
 - 18 items on a 4-point Likert-type scale, $\alpha = .935$
1. Depression Anxiety Stress Scale (**DASS**; Lovibond & Lovibond, 1995)
 - “I found it difficult to work up the initiative to do things.”
 - 21 items on a 4-point Likert-type scale, $\alpha = .944$
1. Weiss Functional Impairment Rating Scale (**WFIRS**; Weiss, 2000)
 - “Having problems with family”
 - 70 items on a 4-point Likert-type scale, $\alpha = .956$
1. Interpersonal Support Evaluation List (**ISEL**; Cohen et al., 1985)
 - “If I were sick, I could easily find someone to help me with my daily chores.”
 - 12 items on a 4-point Likert-type scale, $\alpha = .860$
1. Social Network Index (**SNI**; Cohen et al., 1997)
 - “How many close friends do you have? (meaning people that you feel at ease with, can talk to about private matters, and can call on for help)”
 - 12-23 items, total number of interactions, $\alpha = .537$



Data Preparation

- IBM SPSS package 27.0.0.0 (IBM Corp., released 2020)
- PROCESS 3.5 macro (Hayes, 2017)
- Tests of assumptions
 - Linearity
 - Multicollinearity
 - Homoscedasticity
 - Outliers
 - Normality

Results

- Correlation matrix
 - Target variables were correlated as expected
 - Alpha levels, good-excellent
- See Table 1

Table 1

Descriptive Statistics and Intercorrelations

Variable	SNI	ISEL	DSM	DASS	WFIRS
SNI	(.537)				
ISEL	.280**	(.860)			
DSM	-.030	-.164**	(.935)		
DASS	-.121**	-.310**	.572**	(.944)	
WFIRS	-.185**	-.297**	.608**	.577**	(.956)
<i>M</i>	19.28	38.26	30.39	36.10	104.44
<i>SD</i>	12.28	6.94	10.88	12.99	33.62

Note. $N = 2563$. Entries on the main diagonal are Cronbach's alpha. SNI = Social Network Index; ISEL = Interpersonal Support Evaluation List; DSM = DSM-5 ADHD Symptoms List; DASS = Depression Anxiety Stress Scale; WFIRS = Weiss Functional Impairment Rating Scale.

* $p < .05$, ** $p < .001$.

Results - Hypothesis 1

- A moderated regression was conducted using social support quality as a moderator between ADHD and overall impairment, after controlling for internalizing
 - $F(4, 2373)=508.47, p < .001, R^2= 0.46$
- Main effect of ADHD was significant
 - ADHD predicts increased overall impairment
- Main effect of quality of social support was significant
 - Social support quality predicts lower overall impairment
- Interaction is not significant
 - No moderating effect

Table 4

Social Support Quality as a Moderator between ADHD and Impairment

Predictor	β	p	95% CI	
ADHD**	1.282	< .001	1.169,	1.395
Social Support Quality**	-.665	< .001	-.815,	-.515
ADHD x Social Support Quality	-.008	.210	-.020,	.005
Internalizing†	.750	<.001	.653,	.848

* $p \leq .05$, ** $p \leq .001$, † = covariate

Results - Hypothesis 2

- A moderated regression was conducted using social support quantity as a moderator between ADHD and overall impairment, controlling for internalizing
 - $F(4, 2380)=515.31, p < .001, R^2= 0.46$, with a large effect size
- Main effect of ADHD was significant
 - ADHD predicts higher overall impairment
- Main effect of social support quantity was significant
 - Social support quantity predicts lower overall impairment

Table 5

Social Support Quantity as a Moderator between ADHD and Impairment

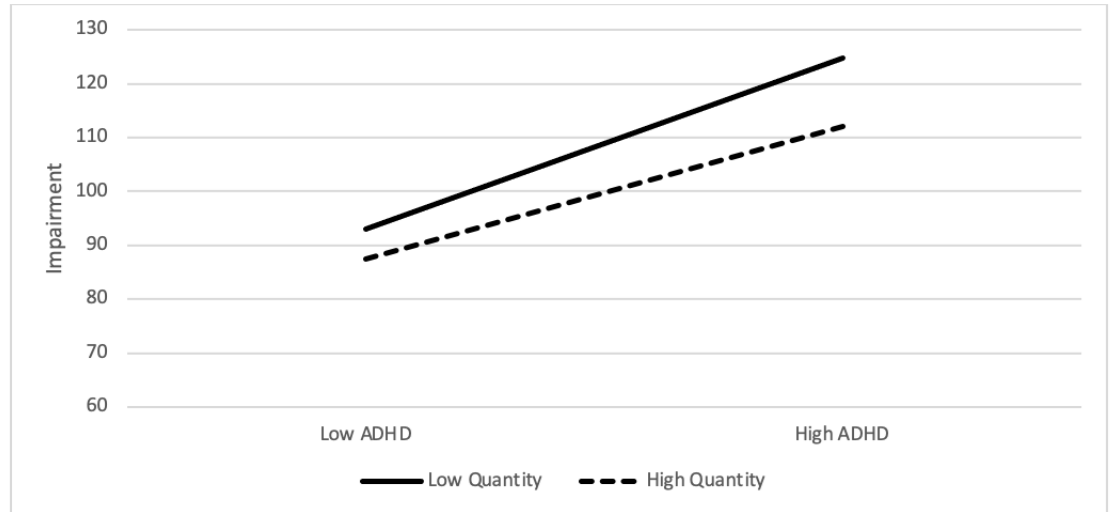
Predictor	β	p	95% CI	
ADHD**	1.306	< .001	1.193,	1.419
Social Support Quantity**	-.376	< .001	-.460,	-.293
ADHD x Social Support Quantity**	-.014	< .001	-.022,	-.006
Internalizing†	.807	< .001	.712,	.901

* $p \leq .05$, ** $p \leq .001$, †=covariate

- Social support quantity was a significant moderator of the relation between ADHD and overall impairment
- For both levels of quantity of social support (i.e., high and low) those with increased ADHD symptoms experience more impairment
- Those with decreased quantity of social support, especially those with greater ADHD symptoms, experience greater levels of overall impairment

Figure 2

Interaction between Quantity of Social Support and ADHD on Impairment





Discussion

- Hypothesis 1
 - ADHD predicted greater overall impairment
 - Social support quality predicted lower overall impairment
 - No moderating effect of quality of social support on ADHD predicting impairment
- Hypothesis 2
 - ADHD predicted greater overall impairment
 - Social support quantity predicted lower overall impairment
 - Moderating effect of quantity of social support on ADHD predicting impairment
 - Those with decreased quantity of social support experience greater levels of overall impairment
 - Especially those with greater ADHD symptoms



Clinical Implications

- For parents and high school counselors to help students prepare for the transition to college
 - Give support to students to find social organizations
 - Encourage participation in ADHD support groups and social skills training
 - Provide information about the transition to college
 - Services available to the student once at college
 - Appropriate ways to reach out for help to professors and services
- For college support services
 - Provide additional advising sessions to incoming students with ADHD
 - College expectations
 - Self-advocacy on campus
 - Help students with ADHD get connected with the necessary support groups and accommodations they may need for success in college
- For therapists and counselors
 - Cognitive Behavioral Therapy (CBT) for adults
 - Helps with strategies to manage their symptoms
 - Social support section should be added



Limitations and Future Directions


- Lengthy study (60+ minutes)
 - Future studies of ADHD may benefit from being shorter
- College students as a sample of emerging adults
 - Future research should focus on examining effects in non-college populations
- Did not examine other areas of impairment that we know students experience
 - Future research should examine how social support relates to grades, dropout rates, study habits, and alcohol use
 - Future research should take into account how living situation, and proximity to parents, may be related to social closeness, social support, and college adjustment



Questions?

References

- American Psychiatric Association (APA). (2013). *Diagnostic and statistical manual of Mental disorders* (5th ed.). Washington DC: Author.
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, *55*(5), 469. <https://doi.org/10.1037/0003-066X.55.5.469>
- Bjornestad, A., Brown, L., & Weidauer, L. (2019). The relationship between social support and depressive symptoms in Midwestern farmers. *Journal of Rural Mental Health*, *43*(4), 109–117. <https://doi.org/10.1037/rmh0000121>
- Cohen, S. (2004). *Social Relationships and Health*. <http://dx.doi.org.proxy.lib.uni.edu/10.1037/0003-066X.59.8.676>
- Cohen, S., Doyle, W. J., Skoner, D. P., Rabin, B. S., & Gwaltney, J. M. (1997). Social Ties and Susceptibility to the Common Cold. *JAMA*, *277*(24), 1940–1944. <https://doi.org/10.1001/jama.1997.03540480040036>
- Cohen, S., Mermelstein, R., Kamarck, T., & Hoberman, H. (1985). Measuring the functional components of social support. In I.G. Sarason & B. Sarason (Eds.), *Social support: Theory, research and application* (pp.73-94). The Hague: Martinus Nijhoff. https://doi.org/10.1007/978-94-009-5115-0_5
- DuPaul, G. J., Weyandt, L. L., O'Dell, S. M., & Varejao, M. (2009). College Students With ADHD: Current Status and Future Directions. *Journal of Attention Disorders*. <https://doi.org/10.1177/1087054709340650>
- Harasemiw, O., Newall, N., Mackenzie, C. S., Shooshtari, S., & Menec, V. (2019). Is the association between social network types, depressive symptoms and life satisfaction mediated by the perceived availability of social support? A cross-sectional analysis using the Canadian Longitudinal Study on Aging. *Aging & Mental Health*, *23*(10), 1413–1422. <https://doi.org/10.1080/13607863.2018.1495176>
- Jeong, A., & An, J. Y. (2017). The moderating role of social support on depression and anxiety for gastric cancer patients and their family caregivers. *PLOS ONE*, *12*(12), e0189808. <https://doi.org/10.1371/journal.pone.0189808>
- Kayla Herbell PhD, R., & Jaclene A. Zauszniewski, F., PhD, RN-BC. (2019). Stress Experiences and Mental Health of Pregnant Women: The Mediating Role of Social Support. *Issues in Mental Health Nursing*, *40*(7), 613–620. <https://doi.org/10.1080/01612840.2019.1565873>

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- Kim, J. W., Kim, B.-N., Kim, J. I., Lee, Y. S., Min, K. J., Kim, H.-J., & Lee, J. (2015). Social Network Analysis Reveals the Negative Effects of Attention-Deficit/Hyperactivity Disorder (ADHD) Symptoms on Friend-Based Student Networks. *PLoS ONE*, *10*(11). <https://doi.org/10.1371/journal.pone.0142782>
- Lara, M. E., Leader, J., Klein, D. L., & Kendler, K. S. (1998). What is social support? *Harvard Mental Health Letter*, *14*(12), 6.
- Lovibond, P. F., Lovibond, S. H., (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. *Behaviour Research and Therapy*, *33*(3), 335-343. [https://doi.org/10.1016/0005-7967\(94\)00075-U](https://doi.org/10.1016/0005-7967(94)00075-U)
- Meaux, J. B., Green, A., & Broussard, L. (2009). *ADHD in the college student: A block in the road*. *16*(3), 248–256. <https://doi.org/10.1111/j.1365-2850.2008.01349.x>
- Nigg, J. T., & Barkley, R. A. (2014). Attention-Deficit/Hyperactivity Disorder. In E. J. Mash & R. A. Barkley, *Child Psychopathology* (3rd ed., pp.75-144). The Guilford Press.
- Platt, J., Keyes, K. M., & Koenen, K. C. (2014). Size of the social network versus quality of social support: Which is more protective against PTSD? *Social Psychiatry and Psychiatric Epidemiology*, *49*(8), 1279–1286. <https://doi.org/10.1007/s00127-013-0798-4>
- Puckett, J. A., Matsuno, E., Dyar, C., Mustanski, B., & Newcomb, M. E. (2019). Mental health and resilience in transgender individuals: What type of support makes a difference? *Journal of Family Psychology*, *33*(8), 954–964. <https://doi.org/10.1037/fam0000561>
- Weiss, M. D. (2000). *Weiss Functional Impairment Rating Scale (WFIRS) Self-Report*. Vancouver, Canada: University of British Columbia.
- Weisz, J. R., & Kazdin, A. E. (2017). *Evidence-based psychotherapies for children and adolescents* (3rd ed.). New York: Guilford Press.

Negative Feedback Loop

