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Jenna K. Anderson

University of Northern Iowa, anderjbx@uni.eduJenna

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The Relation Between Disordered Eating, Stress, and Anxiety in First-Year College Women



Jenna K. Anderson, BA & Elizabeth K. Lefler, PhD

Introduction

- Research has shown that there is an increase in rates of stress and disordered eating for college students, especially women (Costarelli & Patsai, 2012).
- The current study examined this connection by determining the relation between disordered eating, stress, and anxiety in first-year college women
- Past research has routinely shown a correlation between stress and disordered eating
 - According to a review by Ball & Lee (2000), evidence of relations between stress and disordered eating was obtained in the majority of studies reviewed, suggesting a common trend
- While these results do not determine a causal direction, other studies suggest that disordered eating is a response mechanism to stress (Root, 1991).
- Research examining the relation between anxiety and disordered has been mixed (Vardar et al., 2007)

Hypotheses

- Hypothesis 1:
 - For first-year college women there will be a significant positive Pearson's correlation between disordered eating and stress
- Hypothesis 2:
 - For first-year college women there will be a significant positive Pearson's correlation between disordered eating and anxiety

References

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Method

- Participants in this study were first-year college women ($n=99$) from UNI
- Sample was primarily Caucasian/White (88.9%), with fewer identifying as African American/Black (3.03%), Asian American/Asian (4.04%), Multiracial (2.02%), or unidentified (2.02%)
- Most participants were 18 years old (83.8%) or 19 years old (13.1%), and some chose not to answer that question (3.03%)
- Participants were recruited in two ways
 - Online participant management pool
 - In-person, in first-year classes
- Each participant gave consent and went into a private room to complete a survey packet containing several paper-and-pencil measures/questionnaires
 - Depression Anxiety and Stress Scales (DASS-21) and the Eating Disorders Examination Questionnaire (EDE-Q)
- Participants were debriefed and given a sheet with their depression screener score and a list of mental health resources on the university campus and in the community
- If they scored in the moderate or significant risk range, or had recent and frequent episodes of self-harm, they were debriefed by a graduate student and given the option to be walked to the student health center, make a call, or decline all options
- Participants received a choice of compensation in the form of one research credit or an \$8 gift card to either *Starbucks* or *Subway*

Results

- DASS-21 stress sum was significantly correlated with the EDE-Q total disordered eating sum ($r(92) = .33, p = .001$)
- Hypothesis 1 was supported
- DASS-21 anxiety sum was not significantly correlated with EDE-Q total disordered eating ($r(92) = .08, p = .473$)
- Hypothesis 2 was not supported
- Other analyses were examined by evaluating the relation between subscales of the EDE-Q and DASS-21 to determine if specific types of disordered eating were correlated to a greater extent than others (see Table 1)
- These results seem to match other data (Quick & Byrd-Bredbenner, 2013; Striegel-Moore et al., 1989)
- The results suggest that college mental health resources should be focused on reducing stress and identifying eating problems in the transition to college

Table of Correlations

Table 1

Correlations between subscales of the DASS-21 and EDE-Q

Pearson Correlation

Variable	1	2	3	4	5	6	7	8	9
1. Stress	-								
2. Anxiety	.196	-							
3. Depression	.351**	.940**	-						
4. Restraint	.345**	-.001	.064	-					
5. Eating Concern	.417**	.072	.192	.738**	-				
6. Shape Concern	.187	.094	.191	.470**	.422**	-			
7. Weight Concern	.387**	.206*	.311**	.621**	.662**	.689**	-		
8. Binge/Purge	.218*	.003	.117	.477**	.489**	.362**	.464**	-	
9. Total EDE-Q	.330**	.075	.208*	.734**	.725**	.787**	.806**	.802**	-

Note: * $p < .05$, ** $p < .01$, $n = 94-99$

Discussion

- The results of the current study indicate that as rates of stress increase, so too do the rates of disordered eating in first year college women
- The same can not be said for anxiety and disordered eating, which were not correlated in this sample
- Further analyses indicated that DASS-21 stress was significantly correlated with four out of the five subscales from the EDE-Q, whereas DASS-21 anxiety was only significantly correlated with one of five

Implications

- College campus administrators should be aware of these findings as they plan for mental health and well-being resources for their students
- Students need to become aware of the relation and work toward reducing stress and eating properly
- It is possible that if disordered eating goes unchecked, a clinical eating disorder can develop
- Specific interventions should be considered to combat disordered eating in college students
 - Mindfulness meditation (Katterman et al., 2014)

Limitations

- Use of a sample of only women
- One Midwest college
- Primarily white
- Limited use of measures
- High-functioning sample

Future Directions

- Future studies should aim to evaluate these variables in populations with greater gender differentiation, more ethnic variation, and levels of functioning
- Multiple measures should be used and studies should be conducted in other geographic locations
- Future studies should seek to determine if these results can be replicated