Running head: DIFFERENCES IN SOCIAL SUPPORT AS A RISK FACTOR

Differences in Social Support as a Risk

Factor for Depressive Symptoms in Adolescents

Jeffrey D. Leitzel

Bloomsburg University of PA

Introduction[1]

Depression is a condition that effects a substantial number of adolescents (P.M. Lewinsohn, Hops, Roberts, Seeley, & Andrews, 1993). Given the frequency with which it impacts upon young people and the potentially serious and enduring nature of the effects (Rohde, Lewinsohn, & Seeley, 1990), even among those who may exhibit subsyndromal levels of depression (Gotlib, Lewinsohn, & Seeley, 1995) this disorder and associated factors warrant serious attention in terms of potential pathways for intervention. There is a substantial body of literature examining adults that supports the notion that social support can provide powerful preventive effects with respect to depressive disorders and an accumulating body of evidence that indicates that this may be the case with adolescents as well (e.g., (Aseltine, Gore, & Colten, 1994; Joiner, 1997; P. M. Lewinsohn et al., 1994)).

The current study aims to test the hypothesis that greater levels of perceived social support will be associated with lower levels of self-reported depressive symptoms in a large sample of high-school aged adolescents.

Method

The dataset used is described in detail elsewhere and interested readers are referred to (Leitzel, 2000) for further information. The overall sample consists of 1,389 high school students who volunteered to participate in the study. Of greatest interest for the current study are several of the depression

[1] My introduction is a little abbreviated relative to what I am expecting you to put together, I don't think you should need much more than a couple of pages (a little more if working as a pair).

measures which include the Youth Depression Adjective Checklist (Y-DACL)(Carey, Lubin, & Brewer, 1992), the Reynolds Adolescent Depression Scale (RADS)(Reynolds, 1986), and the State and Trait Depression scales from the State-Trait Personality Inventory(Spielberger, 1995, Unpublished Manuscript). Perceived social support will be assessed with a questionnaire item that asked respondents to indicate to what extent they felt that they could discuss problems they may have with six different people. Responses to the six items were averaged across all of the items for the respondents who provided at least four valid responses. This variable was then split into four categories at about the 25th, 50th, and 75th percentiles for further analysis. Since the four depression measures provide scores on different scales, they were all converted into z-scores to enable direct comparisons across the measures that would be meaningful. This would also provide a test of the approximate equivalence of the four measures, since we would expect similar levels of depression regardless of which measure we used at each level of the social support variable.

Results

The social support variable ended up with 106 missing cases, representing individuals who either skipped the item entirely or did not respond to the minimum of four of the six items. Of the remaining 1283 respondents 366 (28.5%) fell in the highest support group, 279 (21.7%) were in the second highest support group, 358 (25.8%) were in the second lowest support group, and 280 (21.8%) were in the lowest support group. The cut-

points for the four groups were all rather close together, falling at 1.83, 2.17, and 2.67 on the 1-4 scale. This indicates that overall, the majority of respondents felt that they had people they could talk to at least some of the time.

A 4 (Depression measures) x 4 (Social support groups) mixed-model ANOVA revealed that the interaction between social support and depression measure was statistically significant, the main effect of depression measure was not statistically significant, and the social support main effect was statistically significant. Table 1 presents the ANOVA Summary table[2]. For all of the analyses involving the within subjects (Depression measures) factor the Huynh-Feldt correction to the degrees of freedom was utilized since Mauchly's test of sphericity revealed that the assumption of sphericity was not tenable (Mauchly's W=.710, Approx. Chi-Square=429.515, df=5, p < .001).

Table 1

ANOVA Summary Table Depression x Social Support Group

THIS SPACE INTENTIONALLY LEFT BLANK SO TABLE WILL NOT BREAK

ACROSS PAGES

---

[2] Note that this summary table is NOT consistent with the directions in the APA publication manual. I have constructed this table to be consistent with the way Howell presents the results of the mixed design on page 450 of our textbook. Tables in your write up should be consistent with the directions in the publication manual.

Source	df	SS	MS	F
Between Subjects	1258	4016.602		
Social Support	3	925.346	308.449	**125.225
Ss w/in Social Support	1255	3091.256	2.463	
Within Subjects	3105	997.024		
Depression Measures	2.467	.126	.051	.162
Depression x Support	7.400	14.939	2.019	**6.364
Depression x Ss w/in Soc Sup	3095.580	981.959	.317	
Total	4263	5013.626		

Table 2 presents the descriptive statistics for the depression measures by social support group and overall.

Table 2[3]

Means and standard deviations for depression z scores overall and separately by group

	Zydacl		Zstatedp		Ztraitdp		Zrads		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	n
Highest support	-0.385	0.787	-0.509	0.745	-0.564	0.721	-0.595	0.789	363
High support	-0.179	0.835	-0.214	0.866	-0.174	0.841	-0.123	0.849	272
Low support	0.034	0.955	0.111	0.956	0.111	0.923	0.138	0.888	352
Lowest support	0.599	1.137	0.683	1.065	0.722	1.049	0.698	1.021	272
Total	-0.011	0.995	-0.015	1.005	-0.013	0.996	-0.009	0.998	1259

---

[3] Note that I am also choosing to present tables directly in the text rather than all together at the end of the manuscript as directed by the APA manual. I feel that this provides greater readability for a paper of this sort. For a manuscript submitted for publication APA rules must be followed to the letter.

First examining the statistically significant interaction between group and depression measures reveals a fairly trivial interaction. The partial η^2 of .015 indicates that less than 2% of the variability in depression scores can be accounted for by the interaction between depression measures and social support group. Figure 1 presents the plot of the interaction.

Figure 1: Depression Measure x Social Support Interaction
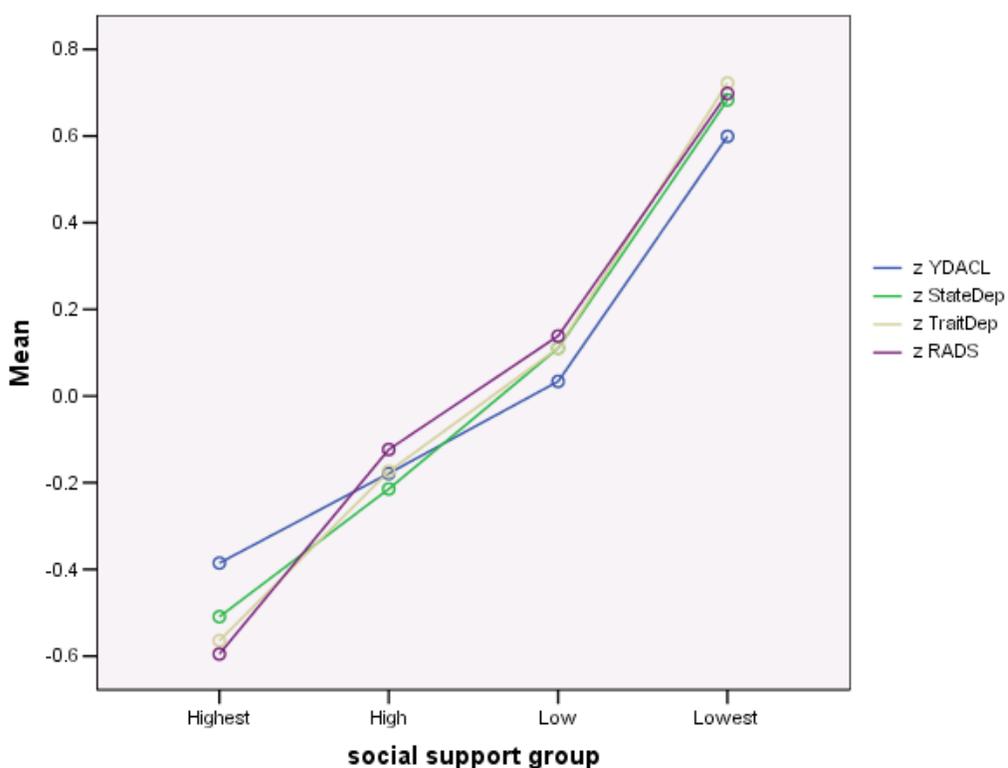
Examination of the interaction plot reveals that there appears to be slightly greater separation among the four depression measures in the highest of the social support groups and that for that group the RADS is the measure reflecting the lowest levels of depression among the four measures and the Y-DACL reflects the highest levels of depression. At the other three levels of social support, the RADS shifts to be the highest (at the high and low support levels)

or the second highest of the depression scores and the Y-DACL the lowest or second lowest of the depression scores and at all three levels the measures are clustered much more tightly together. Examination of the simple effect of depression measure in the highest social support group using paired comparisons with the Sidak adjustment revealed that the Y-DACL was significantly different from the other three depression measures, none of which differed significantly from each other. None of the multiple comparisons at the other three levels of social support revealed any statistically significant differences.

For the main effect of group, estimated marginal means for the four groups are -.51, -.17, .10, and .68, respectively for the highest through lowest social support groups. Since these scores represent a linear composite of the four depression measures, they can be considered as roughly z scores, with a standard deviation of approximately 1.0, thus when we look at multiple comparisons, we can also think of the group differences as corresponding approximately to Cohen's d (differences in standard deviation units). Multiple comparisons among the depression means utilizing the Sidak correction reveals that all four groups are significantly different from each other. The partial η^2 associated with the social support main effect was .230, indicating that approximately 23% of the variability in depression scores can be accounted for by level of social support. While eta squared can be somewhat biased upward, ω^2 = .228, provides essentially the same value.

<center>Discussion</center>

Analyses revealed the predicted pattern of results. Consistent with a substantial body of prior research, primarily focused on adults, level of social support reported represented a fairly powerful predictor of level of depressive symptoms. This relationship was remarkably consistent across the four measures used at all but the highest of four levels of self-reported social support. No meaningful interpretation for the slight shift in pattern among the four measures is offered[4]. It is certainly encouraging that the majority of the participants reported at least some meaningful level of social support. The fact that this relationship was revealed consistently across measures indicates that aiding individuals at risk for developing depression with enhancing or developing meaningful social support networks might represent an effective preventive strategy.

---

[4] Though if I was really writing this up thinking about submitting for publication, I would certainly do quite a bit more digging and thinking to arrive at a reasonable explanation.

References

Aseltine, R. H., Gore, S., & Colten, M. E. (1994). Depression and the social development context of adolescence. *Journal of Personality and Social Psychology, 67*(2), 252-263.

Carey, M. P., Lubin, B., & Brewer, D. H. (1992). Measuring dysphoric mood in pre-adolescents and adolescents: The youth depression adjective checklist (Y-DACL). *Journal of Clinical Child Psychology, 21*(4), 331-338.

Gotlib, I. H., Lewinsohn, P. M., & Seeley, J. R. (1995). Symptoms versus a diagnosis of depression: Differences in psychosocial functioning. *Journal of Consulting and Clinical Psychology, 63*, 90-100.

Joiner, T. E., Jr. (1997). Shyness and low social support as interactive diatheses, with loneliness as mediator: Testing an interpersonal-personality view of vulnerability to depressive symptoms. *Journal of Abnormal Psychology, 106*(3), 386-394.

Leitzel, J. D. (2000). *A Confirmatory Factor Analytic Investigation of the Tripartite Model of Depression and Anxiety in High School Adolescents.* Unpublished Doctoral Dissertation, Marywood University, Scranton, PA.

Lewinsohn, P. M., Hops, H., Roberts, R. E., Seeley, J. R., & Andrews, J. A. (1993). Adolescent psychopathology: I. Prevalence and incidence of depression and other DSM-III-R disorders in high school students. *Journal of Abnormal Psychology, 102*(1), 133-144.

Lewinsohn, P. M., Roberts, R. E., Seeley, J. R., Rohde, P., Gotlib, I. H., & Hops, H. (1994). Adolescent psychopathology: II. Psychosocial risk factors for depression. *Journal of Abnormal Psychology, 103*(2), 302-315.

Reynolds, W. M. (1986). *Reynolds Adolescent Depression Scale.* Odessa, FL: Psychological Assessment Resources.

Rohde, P., Lewinsohn, P. M., & Seeley, J. R. (1990). Are people changed by the experience of having an episode of depression? A further test of the scar hypothesis. *Journal of Abnormal Psychology, 99*(3), 264-271.

Spielberger, C. D. (1995, Unpublished Manuscript). *Preliminary manual for the state-trait personality inventory (STPI).* Tampa, FL: University of South Florida.