An Examination of the Negative Mood Regulation Scale for Youth

Aaron C. Roome, Black Hawk Area Special Education District **Jeff Laurent, Western Illinois University**
Salvatore J. Catanzaro, Illinois State University **Jack Mearns, California State University-Fullerton**

INTRODUCTION

Anxiety and depression in youth are often associated with negative physical, cognitive, and social outcomes, and tend to persist throughout life (Morris & March, 2004; Rey & Birmaher, 2009). Many in the general public believe that pediatric depression is a more serious illness than adult depression that requires formal, and, if necessary, involuntary treatment (Perry et al., 2007). Nevertheless, it is quite common for childhood depression and anxiety to go unrecognized and untreated (Sawyer et al., 2001).

Identifying and understanding how youth cope with depression and anxiety requires further investigation. One approach in explaining how youth experience anxiety and depression is through the concept of negative mood regulation (NMR) expectancies. NMR expectancy is the general belief that an individual has that he/she has the ability to alleviate an unpleasant mood state through his/her perceived coping responses (Catanzaro & Mearns, 1990). In other words, if an individual believes that his/her coping skills are effective in regulating his/her mood state, the individual will likely be able to alter his/her mood state.

The present study examined the reliability and validity of the Negative Mood Regulation Scale for Youth (NMR-Y). This was accomplished by assessing the internal consistency of items and factor structure of the scale. The relationship between NMR expectancies and negative affect (NA), positive affect (PA), physiological hyperarousal (PH), and approach/avoidant coping was examined to establish the validity of the NMR-Y.

METHOD

Participants. A total of 503 children in Grades 4 through 8 from three rural Midwestern school districts participated in the study. There were more girls (52.7%) than boys, and the majority of the sample was White/Caucasian (95.6%). Students in regular education classes composed the majority of the sample (91.1%). Students receiving special education support services were primarily eligible under the learning disabilities category (6.4%). The mean age was 11.88 years (SD = 1.44 years).

Instruments. The *Negative Mood Regulation Scale for Youth* (NMR-Y; Catanzaro et al., 1995) is a 34-item scale that measures children's beliefs as to their own ability to alleviate negative mood states. The NMR-Y measures beliefs on a 5-point scale.

The *Positive and Negative Affect Scale for Children* (PANAS-C; Laurent et al., 1999) is a 27-item measure of positive and negative affect. Children rate how often they have felt *interested*, *sad*, and so forth on a 5-point scale.

The *Physiological Hyperarousal Scale for Children* (PH-C; Laurent et al., 2004) is an 18-item measure that assesses physiological hyperarousal defined as bodily manifestations of autonomic arousal. Children rate on a 5-point scale how often they have experienced symptoms such as *sweaty hands/palms*, *heart pounding*, and so forth.

The *Self-Report Coping Scale* (SRCS; Causey & Dubow, 1992) is a 34-item measure that assesses children's approach/avoidant coping strategies. Students consider each coping response and respond on a 5-point scale.

Procedure. Letters were sent to parents of students in Grades 4-8. Students for whom parental consent was obtained completed a packet that included an assent form, a sheet requesting demographic information, and the following measures in random order: NMR-Y; PANAS-C; PH-C; and SRCS. Students completed these measures in groups of 10-75.

RESULTS & DISCUSSION

Items were evaluated using item-total correlations and factor analysis. Using commonly accepted criteria, 29 of the original 34 items were retained. Estimates of internal consistency indicated that the 29-item NMR-Y demonstrated strong reliability (see table).

Factor analyses revealed a weak 6-factor solution with 18 of the 29 items loading on more than one factor. This suggested that the NMR-Y is likely a unidimensional scale.

The validity of the NMR-Y was evaluated by comparing correlations between NMR expectancies, PA, NA, PH, and active/avoidant coping styles. These relationships were as predicted for all but one comparison. An ANOVA found a main effect for NMR-Y scores and sex (females < males), but not age (Grades 4 & 5 = Grades 6-8); there was no interaction between sex and age. Hierarchical regressions indicated that the NMR-Y significantly predicted PA, NA, and PH beyond coping.

A limitation to the current study concerns the generalizability of the results; the sample demographics do not match national demographics regarding ethnicity. It is unclear whether the NMR-Y is as promising a measure of NMR expectancies for others as it is for Caucasian students. Nevertheless, the NMR-Y has the potential to act as a screening tool for use in schools to gauge how children deal with negative feelings. Understanding whether a child believes he/she can do something to change how he/she feels can directly impact experiences, in addition to providing a target for intervention. The NMR-Y would complement social-emotional screening activities in schools, providing a counterpoint to measures that assess emotional distress.

Scale	NMRY	PA	NA	PH	SSS	SRPS	DIST	INT	EXT
PA	.47**	-							
NA	-.43**	-.30**	-						
PH	-.36**	-.18**	.68**	-					
SSS	.38**	.31**	-.09	-.02	-				
SRPS	.32**	.32**	-.05	.01	.64**	-			
DIST	.09*	.03	.15*	.20**	.09	.27**	-		
INT	-.42**	-.22**	.50**	.47	.07	.17**	.18**	-	
EXT	-.32**	-.12**	.34**	.40**	-.14**	-.05	.22**	.46**	-
M	97.71	43.44	28.85	34.84	22.06	22.25	14.24	16.44	7.96
SD	18.55	9.56	10.77	12.44	7.36	6.00	4.31	5.60	3.60
Alpha	.89	.88	.90	.90	.87	.79	.66	.75	.72

Note. * $p < .05$, ** $p < .01$

NMRY = NMR-Y scale, PA = Positive Affect scale of PANAS-C, NA = Negative Affect scale of PANAS-C, PH = PH-C scale, SSS = Seeking Social Support scale of SRCS, SRPS = Self-Reliance/Problem Solving scale of SRCS, DIST = Distancing scale of SRCS, INT = Internalizing scale of SRCS, EXT = Externalizing scale of SRCS