

Negative affectivity is common to pediatric behavioral health problems

Abstract

A significant number of youth in the United States experience mental illness; within these youth, comorbidity is considered the rule, not the exception. Rather than treat each disorder distinctly, recent research examines common psychopathological processes shaping various presenting problems to simultaneously target deficits and excesses. Contemporary research hypothesizes that negative affectivity pervades multiple psychiatric problems in youth. The present study sought to examine negative affectivity in an intent-to-treat sample of young patients presenting at an outpatient clinic in an academic medical center. Young patients ($n=54$) with internalizing disorders, externalizing disorders, or both completed the Children's Depression Inventory and the Screen for Childhood Anxiety and Related Emotional Disorders. MANOVA results indicated no significant difference between the groups. Additionally, no gender differences were found. Findings suggest negative affectivity is a core feature of psychopathology in general, and thus a valuable focus for transdiagnostic treatments.

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Introduction

Childhood disorders are frequently characterized dichotomously into internalizing and externalizing symptoms. However, co-morbidity is the rule rather than the exception in child psychopathology.¹ Theories that explain comorbidity often focus on the overlap between criteria for disorders and similar etiologies. Negative affectivity is a construct that characterizes multiple disorders.²⁻⁵ More specifically, negative affectivity is seen as a general distress factor marked by a tendency to experience negative emotions such as worry, anxiety, fear, sadness, and guilt.⁶⁻⁸

A strong predisposition to experience negative emotionality is common to youth with internalizing, externalizing or both difficulties.⁹ Children diagnosed with externalizing disorders such as attention deficit hyperactivity disorder and oppositional defiant disorder also similarly present with accompanying with anxiety, sadness, and anger. Mc Burnett et al.,¹⁰ found that negative affectivity is prevalent in children with conduct problems. Finally, personal emotional distress is correlated with acting-out behavior in youth.¹¹ The cascade of lifelong mental health problems may be accounted for somewhat by the functional interference of childhood psychopathology marked by high levels of negative affectivity. Regardless of type of disorder, children experience distress and this dysphoria represents a pervasive hindrance to relationships and achievement.¹²

Negative affectivity is a key concept for both psychotherapeutic and psychopharmacological interventions. Medicines such as SSRIs are prescribed for both anxiety and depression suggesting they target a common neurochemical basis for negative affectivity shared by both disorders. Additionally, focusing on managing negative affectivity forms the basis for the emerging transdiagnostic unified protocol for children.¹³ Thus, both pharmacological and psychosocial treatments recognize the utility of directing treatment at negative affectivity. The field of clinical psychology is alertly shifting towards transdiagnostic approaches that target common areas of impairment across disorders.^{14,15} Understanding the fundamental ties between disorders can inform the creation of transdiagnostic treatments.

This present study evaluated the presence of negative affectivity in children presenting to an outpatient behavioral health clinic with

various clinical problems. It was hypothesized that children challenged with internalizing problems characterized by depression and anxiety will report greater negative affectivity than their counterparts experiencing externalizing difficulties. Secondly, female patients were expected to score higher on measures of depression and anxiety than their male peers.

Materials and methods

Participants

The participants represented a convenience intent-to-treat sample. 54 patients (Male $n=37$, female $n=17$) treated at a pediatric behavioral health outpatient clinic in an academic medical center were included in the study. The patients were predominantly Euro-American (92%). Their ages ranged from eight to fifteen years ($M=11.24$, $SD=1.96$). The children completed the measures at their initial appointment as part of their routine care.

Instruments

Screen for Child Anxiety Related Emotional Disorders (SCARED; 16). The SCARED is a forty-one item scale covering the basic symptoms of anxiety in children. Each item is scored on a three point scale (0,1,2) with higher scores representing greater endorsement of symptoms. The scale range is 0-82 for the overall score with scores of 25 or greater indicating the presence of clinically significant anxiety. There are five orthogonal factors (panic/somatic, generalized anxiety, separation anxiety, social anxiety, and school refusal) each with their own cut-off scores. Psychometric studies support good internal consistency, test-retest reliability, and discriminant validity.¹⁶⁻²⁰

The Children's Depression Inventory (CDI).^{21,22} The CDI is a widely used 27 item self-report inventory which assesses cognitive, behavioral, physiological, and emotional symptoms of depression. Each item is scored on a three point scale (0,1,2) with higher scores reflecting greater severity. The scale yields a total score CDI ranging from 0-54. In addition to the total score, the measure yields five orthogonal factors (negative self-esteem, negative mood, interpersonal difficulties, ineffectiveness, and anhedonia). Several reports suggested a cut off score for overall depression of 13.^{21,22} The CDI possesses strong psychometric properties.²²

Procedure

This study is a posthoc static group comparison and was approved by the Institutional Review Board (IRB) of the academic medical center. The children were sorted into three groups based on their presenting problems: internalizing (n=33) (anxiety, depression, OCD, etc), externalizing (n=10) (ODD, Conduct Disorder, ADHD, Autism Spectrum, etc), or mixed internalizing/externalizing (n=11) (e.g. patients with co-morbid internalizing and externalizing difficulties). Diagnoses were determined through semi-structured clinical interviews by individual clinicians treating each case. All participants completed the CDI and SCARED at their initial session for outpatient psychotherapy as part of their routine care. SCARED factor scores (panic/somatic, generalized anxiety, separation anxiety, social anxiety, and school refusal) and CDI factor scores (negative mood, interpersonal difficulties, ineffectiveness, anhedonia, and negative self-esteem) were recorded along with children’s age, ethnicity, and gender. Results from the SCARED and CDI were not determinative in the diagnosis.

Results and discussion

Gender Differences: Independent sample t-tests were conducted to examine gender differences in self-reported anxiety and depression. As (Table 1) reveals, no significant differences were found for gender on the CDI (Male Mean = 10.9; Female Mean=9.0) nor on the SCARED (Male Mean =25.19; Female Mean =25.47). The level of self-reported anxiety in this clinical sample did not differ by gender and therefore gender was not instrumental in determining differences between diagnostic groups.

Table 1 MANOVA results for CDI/SCARED Total and Factor Scores

Dependent Variable	df	Mean Square	F-Value	Significance Level
SCARED	2,51	382.7	2.145	0.13
Panic	2,51	44.6	2.4	0.1
GAD	2,51	23.2	1.6	0.21
Sep Anx	2,51	31.3	2.3	0.11
Soc Anx	2,51	10.1	0.6	0.55
Sch Ref	2,51	0.59	0.19	0.83
CDI	2,51	42.2	0.87	0.42
Neg Mood	2,51	4.3	..99	0.38
Int. Prob	2,51	2.6	2.44	0.1
Ineffect	2,51	1.74	0.53	0.6
Anhed	2,51	7.9	1.8	0.18
Neg Esteem	2,51	6	1.52	0.23

Negative affectivity in multiple disorders: A Multivariate Analysis of Variance (MANOVA) was applied to the data to provide a conservative test of the hypothesis. MANOVA analyses test variability in multiple related dependent variables simultaneously while controlling for Type I Error. A conservative test was chosen due to the small sample size and to obviate the need for multiple statistical tests. As (Table 2) reveals, no significant differences were found among the three diagnostic groups on the SCARED (Internalizing Mean=28.3, SD=13.3; Externalizing Mean=20.1, SD=14.3; Mixed Int/Ext Mean=21; SD=12.7), CDI total scores (Internalizing Mean=11.2; SD=7.4; Externalizing Mean=9.9, SD=6.8; Mixed Internal/External Mean=8.09, SD=6.8) or any factor scores on the measures.

No statistically significant differences were found between the three groups. However, results showed that children with any disorder, internalizing or externalizing, reported elevated symptoms on the CDI

and SCARED indicating significant presence of negative affectivity in multiple presenting problems. Chorpita and Daleiden²³ found that measures of negative affectivity significantly predicted the presence of any disorder, regardless of its categorization as internalizing, externalizing, or other. The results of this study lend further support to this conclusion and suggest that emotional regulation of negative affect could be an ideal treatment target for interventions with children.

Table 2 Gender differences on the CDI and SCARED

Measure	Mean	Standard Deviation	t-value	Significance Level
SCARED			-0.07	0.95
Male	25.19	13.19		
Female	25.47	14.99		
CDI			0.97	0.34
Male	11	7.1		
Female	9	6.5		

Conclusion

When looking at youth with internalizing and externalizing problems, all three groups exhibited statistically similar scores on the CDI and SCARED. This indicates that children’s self-reports of anxiety and depression did not vary as a function of their presenting complaints. The presence of elevated scores across diagnoses also suggests that both the CDI and SCARED are sensitive to the negative affect expressed by children with varying disorders. These findings are consistent with the literature previously reviewed⁹⁻¹² and accordingly support the presence of negative affectivity regardless of type of disorder.

Further, no gender differences were found. Male and female children in the study reported clinically significant levels of anxiety with similar standard deviations. Similarly, CDI scores averaged below recommended clinical thresholds regardless of gender.

Limitations and future directions

This study was conducted with a small sample size and unequal numbers in each comparison cell. Perhaps, larger samples and equivalent cell sizes would yield statistically significant differences. The sample was also predominantly Caucasian and restricts generalizability of conclusions. Since this was a convenience intent-to-treat sample, there were no inter-rater reliability checks on individual clinicians’ diagnoses. Thus, future studies are well advised to include larger more diverse clinical samples and inter-rater reliability checks on diagnoses/presenting problems.

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Conflicts of interest

Author declares there are no conflicts of interest.

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