Although investigators have developed valid and reliable multidimensional scales for assessing self-concept, little research has examined the potential associations between internalizing and externalizing disorders in children and adolescents with the multiple dimensions of self-concept. The authors hypothesized that specific dimensions of self-concept would be differentially related to internalizing versus externalizing disorders, as well as other factors which impact children's mental health. The current study was conducted to examine how a multidimensional model of self-concept was related to child behavior problems in a large sample of Hispanic children. (Contains 15 references and 3 tables.)
Multifaceted Self-Concept: Associations with Child Behavior Problems in Hispanic Children

by

Craig S. Neumann
Michael E. Shafer
Patricia L. Kaminski
Vincent Ramos
Multidimensional Self-Concept: Associations with Child Behavior Problems in Hispanic Children

Craig S. Neumann, Micheal E. Shafer, Patricia L. Kaminski, & Vincent Ramos
Department of Psychology
University of North Texas
Contact info: csn0001@unt.edu

Epidemiological studies have documented the significant mental health problems among children and adolescents in the U.S. According to the Office of Technology Assessment (OTA), approximately 8 million children require mental health services each year (OTA, 1991). Although the need for services is on the rise, "children's mental health needs continue to be largely unmet" (Flaherty, Weist, & Warner, p. 341, 1996), and "the attention to adolescent mental health issues still lags behind research on somatic health issues" (Weist, Ginsburg, & Shafer, p. 165, 1999). As the number of children experiencing internalizing and externalizing problems continues to rise, further research is needed to identify the correlates of such problems.

Studies have identified a variety of factors that affect the mental health status of children and which are important targets for intervention, including dysfunctional peer and parent relations, poor school performance, physical, sexual, and emotional trauma. Recent investigations have begun to re-examine the relationship between self-concept and psychopathology (Aunola, Stattin, & Nurmi, 2000). This research is based, in part, on the fact that the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV, 1994) and other investigators (Bracken, 1996) propose that self-concept plays a critical role in the development and understanding of internalizing and externalizing problems such as major depression, dysthymia, anxiety disorders, delinquency, and phobias. Low self-concept has also been connected to school maladjustment (Aunola, Stattin, & Nurmi). Although the relationship between self-concept and psychopathology has been fairly well documented, previous studies have tended to treat self-concept as a global unidimensional construct, despite the fact that other research suggests that self-concept is multidimensional.

Over the past two decades, a number of investigators have addressed the limitations of previous research and have developed multidimensional models of self-concept (Bryne, 1984; Keith & Bracken, 1996; Marsh & Gouvernet, 1989). Such models assert that first-order domains such as peer and parent relations, physical abilities and appearance, and general self-esteem and school comprise some of the multiple dimensions of a hierarchical self-concept construct. Although investigators have developed valid and reliable multidimensional scales for assessing self-concept, little research has examined the potential associations between internalizing and externalizing disorders in children and adolescents with the multiple dimensions of self-concept. We hypothesized that specific dimensions of self-concept would be differentially related to internalizing versus externalizing disorders, as well as other factors which impact children's mental health. The current study was conducted to examine how a multidimensional model of self-concept was related to child behavior problems in a large sample (N= 434) of Hispanic children. Comprehensive models of self-concept and child behavior problems were tested via CFA.
Participants and Procedures
Participants were 434 healthy male (n = 237) and female (n = 197) Hispanic children within a south Texas school district. At the time of the study, participants were in the sixth through eighth grades (M = 11.52, SD = .59). Measures included the Self-Description Questionnaire-I (SDQ-I; Marsh, 1990) and the Youth Self Report (YSR) form of the Child Behavior Checklist (CBCL; Achenbach, 1991). Students were instructed not to put their names on the surveys and were identified only by their ID number. Teachers read surveys to students and gave assistance when needed.

Data Analysis – Confirmatory Factor Analysis (CFA)
A CFA approach requires one to specify the number of factors (i.e., latent variables) and the variable-to-factor relationships, and then statistically test the adequacy of the CFA model in terms of strict model fit criteria. This approach allows investigators to test a priori models, and provide precise parameter estimates adjusted for measurement error (Bentler, 1995). Previous factor analytic studies with the SDQ (Marsh, 1994) and other instruments (Bagozzi & Heatherton, 1994), have used item composites, referred to as parcels, rather than all single items as indicators for latent variables (LVs). For the current study, the eight items for each SDQ scale were randomly divided into two groups and then averaged to produce two parcels per SDQ-I scale. The use of parcels, versus single items as indicators for LVs, have been used in other CFA studies because parcels: (a) tend to be more reliable and valid indicators of LVs, (b) are less skewed than individual items, and (c) reduce the number of parameters that have to be estimated, thus improving the ratio of the number of estimated parameters to the number of subjects (Bagozzi & Heatherton, 1994; Marsh, 1994).

Results and Interpretation
All models resulted in excellent fit and were highly consistent with previous independent CFA studies on the SDQ and CBCL separately. See Table 1 below for fit statistics, and Figures 1-3 for factor loadings. See Tables 2 and 3 for factor inter-correlations. As expected, the SDQ factors showed differential relationships with the CBCL dimensions (e.g., internalizing problems were most related to decreased self-concept for physical abilities, appearance and peer relations; externalizing problems related to poor parental relations, and cognitive problems were associated with SDQ general school ratings). More importantly, the associations between the CBCL and SDQ factors were different for the males versus the females (e.g., CBCL internalizing and SDQ physical abilities/appearance domains were more strongly associated for males, externalizing problems were more strongly associated with poor parental relationships for the females).

The results are consistent with previous research, which indicates that self-concept is a multidimensional construct. Furthermore, these dimensions are differentially related to internalizing, externalizing and cognitive child behavior problems, and the pattern of associations among the domains of self-concept and child behavior problems differs by gender.
Table 1

<table>
<thead>
<tr>
<th>Models</th>
<th>df</th>
<th>$\chi^2$</th>
<th>NNFI</th>
<th>CFI</th>
<th>SRMR</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBCL Model</td>
<td>11</td>
<td>30.5</td>
<td>.969</td>
<td>.984</td>
<td>.03</td>
</tr>
<tr>
<td>SDQ Model</td>
<td>76</td>
<td>114.8</td>
<td>.978</td>
<td>.986</td>
<td>.02</td>
</tr>
<tr>
<td>CBCL/SDQ Model</td>
<td>175</td>
<td>296.7</td>
<td>.963</td>
<td>.975</td>
<td>.03</td>
</tr>
</tbody>
</table>

NNFI=nonnormed fit index; CFI=comparative fit index; SRMR=standardized root mean square

Table 2

<table>
<thead>
<tr>
<th>SDQ Factors</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Physical Abilities</td>
<td>.56</td>
<td>.60</td>
<td>.29</td>
<td>.23</td>
<td>.31</td>
<td>.43</td>
<td>.61</td>
</tr>
<tr>
<td>2. Physical Appearance</td>
<td></td>
<td>.80</td>
<td>.34</td>
<td>.22</td>
<td>.10</td>
<td>.29</td>
<td>.77</td>
</tr>
<tr>
<td>3. Peer Relations</td>
<td></td>
<td></td>
<td>.28</td>
<td>.24</td>
<td>.27</td>
<td>.44</td>
<td>.81</td>
</tr>
<tr>
<td>4. Parent Relations</td>
<td></td>
<td></td>
<td></td>
<td>.36</td>
<td>.24</td>
<td>.41</td>
<td>.57</td>
</tr>
<tr>
<td>5. Reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.25</td>
<td>.70</td>
<td>.48</td>
</tr>
<tr>
<td>6. Mathematics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.75</td>
<td>.34</td>
</tr>
<tr>
<td>7. General School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.63</td>
</tr>
<tr>
<td>8. Self</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3

Inter-correlations between SDQ-I and CBCL factors (Total Sample)

<table>
<thead>
<tr>
<th>SDQ Factors</th>
<th>CBCL (YSR) Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Internalizing</td>
</tr>
<tr>
<td>1. Physical Abilities</td>
<td>-.32**</td>
</tr>
<tr>
<td>2. Physical Appearance</td>
<td>-.26**</td>
</tr>
<tr>
<td>3. Peer Relations</td>
<td>-.21**</td>
</tr>
<tr>
<td>4. Parent Relations</td>
<td>-.24**</td>
</tr>
<tr>
<td>5. Reading</td>
<td>-.11*</td>
</tr>
<tr>
<td>6. Mathematics</td>
<td>-.11*</td>
</tr>
<tr>
<td>7. General School</td>
<td>-.15**</td>
</tr>
<tr>
<td>8. Self</td>
<td>-.27**</td>
</tr>
</tbody>
</table>

* $p < .05$, ** $p < .01 - .001$
Table 3 Cont.
Inter-correlations between SDQ-I and CBCL factors (Females)

<table>
<thead>
<tr>
<th>SDQ Factors</th>
<th>Internalizing</th>
<th>Cognitive</th>
<th>Externalizing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Physical Abilities</td>
<td>-.18**</td>
<td>-.16*</td>
<td>-.20**</td>
</tr>
<tr>
<td>2. Physical Appearance</td>
<td>-.15*</td>
<td>-.15*</td>
<td>-.03</td>
</tr>
<tr>
<td>3. Peer Relations</td>
<td>-.10</td>
<td>-.10</td>
<td>-.03</td>
</tr>
<tr>
<td>4. Parent Relations</td>
<td>-.25**</td>
<td>-.28**</td>
<td>-.44**</td>
</tr>
<tr>
<td>5. Reading</td>
<td>-.10</td>
<td>-.34**</td>
<td>-.38**</td>
</tr>
<tr>
<td>6. Mathematics</td>
<td>-.13</td>
<td>-.24**</td>
<td>-.17*</td>
</tr>
<tr>
<td>7. General School</td>
<td>-.17*</td>
<td>-.35**</td>
<td>-.34**</td>
</tr>
<tr>
<td>8. Self</td>
<td>-.28**</td>
<td>-.37**</td>
<td>-.36**</td>
</tr>
</tbody>
</table>

Inter-correlations between SDQ-I and CBCL factors (Males)

<table>
<thead>
<tr>
<th>SDQ Factors</th>
<th>Internalizing</th>
<th>Cognitive</th>
<th>Externalizing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Physical Abilities</td>
<td>-.33**</td>
<td>-.23**</td>
<td>-.12*</td>
</tr>
<tr>
<td>2. Physical Appearance</td>
<td>-.33**</td>
<td>-.15**</td>
<td>-.07</td>
</tr>
<tr>
<td>3. Peer Relations</td>
<td>-.29**</td>
<td>-.12</td>
<td>-.03</td>
</tr>
<tr>
<td>4. Parent Relations</td>
<td>-.22**</td>
<td>-.19**</td>
<td>-.27**</td>
</tr>
<tr>
<td>5. Reading</td>
<td>-.17*</td>
<td>-.17*</td>
<td>-.18**</td>
</tr>
<tr>
<td>6. Mathematics</td>
<td>-.07</td>
<td>-.21**</td>
<td>-.19**</td>
</tr>
<tr>
<td>7. General School</td>
<td>-.14*</td>
<td>-.28**</td>
<td>-.21**</td>
</tr>
<tr>
<td>8. Self</td>
<td>-.29**</td>
<td>-.18*</td>
<td>-.11</td>
</tr>
</tbody>
</table>
Self Description Questionnaire-1 (SDQ-1)
Non-Academic and Academic Factors

Physical Abilities

Physical Appearance

Peer Relations

Parent Relations

General Self

Reading

Math

School

See Table 2 for factor correlations

BEST COPY AVAILABLE
SDQ Factors

Physical Abilities

Physical Appearance

Peer Relations

Parent Relations

Reading

Math

School

General Self

CBCL (YSR) Factors

Internalizing

Withdrawn

Somatic

Anx/Dep

Cognitive

Attention

Thought

Externalizing

Aggression

Delinquent

See Table 3 for factor correlations
References


III. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):

If permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of these documents from another source, please provide the following information regarding the availability of these documents. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC selection criteria are significantly more stringent for documents that cannot be made available through EDRS.)

Publisher/Distributor:
_____________________________________________________________________________________

Address:
_____________________________________________________________________________________

Price:
_____________________________________________________________________________________

IV. REFERRAL OF ERIC TO COPYRIGHT/REPRODUCTION RIGHTS HOLDER:

If the right to grant this reproduction release is held by someone other than the addressee, please provide the appropriate name and address:

Name:
_____________________________________________________________________________________

Address:
_____________________________________________________________________________________

V. WHERE TO SEND THIS FORM:

Send this form to the following ERIC Clearinghouse: ERIC Counseling & Student Services
University of North Carolina at Greensboro
201 Ferguson Building
PO Box 26171
Greensboro, NC 27402-6171

However, if solicited by the ERIC Facility, or if making an unsolicited contribution to ERIC, return this form (and the document being contributed) to:

ERIC Processing and Reference Facility
4483-A Forbes Boulevard
Lanham, Maryland 20706

Telephone: 301-552-4200
Toll Free: 800-799-3742
FAX: 301-552-4700
e-mail: info@ericfac.piccard.csc.com
WWW: http://ericfacility.org