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Internalizing Behavior Symptoms, Disability Status, and Perceived Healthcare Access: Project to Learn About Youth Mental Health.

Caroline R. Harrison, MPH, Lorraine F. Kubicek, PhD, IMH-E® (IV-R/F), Kristina D. Hightshoe, MSPH, Eric J. Moody, PhD, Nuri M. Reyes, PhD
University of Colorado School of Medicine / JFK Partners , University of Wyoming / Wyoming Institute for Disabilities (WIND)

Background and Significance

Health disparities are more common amongst adults with either a developmental disability/disorder diagnosis, a mental health diagnosis, or both[4,7]. Evidence suggests that among adults, both higher rates of internalizing symptoms and developmental disability/disorder diagnosis status predict poorer perception of access to and quality of healthcare[2,3]. Less is known about this phenomenon in children. Evidence suggests that Latinx populations may be at higher risk compared to other groups for internalizing behavior symptoms.[9] Research also supports that primary care physicians are often less able to identify psychosocial problems such as internalizing behavior symptoms in this population[6], thus leading to a higher likelihood of health disparities and increased dissatisfaction with healthcare access and quality. Addressing these potential disparities in children has implications for schools, Public Health officials, government agencies, providers, and other groups serving this population.

Specific Aims

1. To describe internalizing symptom rates and developmental disability status among a sample of low-income, predominantly Hispanic/Latino students attending grades K-12 in a large, suburban school district.
2. To explore the relationship between number of internalizing symptoms and parental perception of healthcare access and quality.
3. To explore how disability status predicted this relationship.

Study Design and Research Methods

Data were collected as part of the Project to Learn About Youth Mental Heath (PLAY-MH). A two-stage methodology[7] was used to screen participants attending grades K-12 in a large, suburban school district.

- In stage one, teachers screened 4,183 students from a stratified random sample for internalizing, externalizing, or tic disorders.

- In stage two, 239 parents/guardians with children designated high or low-risk for such disorders completed a two-hour phone interview (conducted in English or Spanish) including the use of the *Mental Health Diagnosis, Treatment, and Satisfaction Questionnaire[7],* and the *Diagnostic Interview Schedule for Children (Version IV)*[8]

To address this study's aims, internalizing symptoms were aggregated to create a composite Anxiety Index score. The components included symptoms of General Anxiety Disorder, Separation Anxiety, and Panic Disorder. Individuals were classified as having either zero, one to four, or 5 or more anxious symptoms. To measure satisfaction, Likert composite scores were calculated from participant responses to four interview questions assessing satisfaction with access to healthcare provided by health insurance. These are listed in the next section. Ordinal regression was used to predict satisfaction with healthcare access.

Interview Questions

1. Does your child's health insurance offer benefits that meet his/her needs?

2. Are the costs not covered by your child's health insurance reasonable?

3. Does the health insurance company allow your child to see the health care providers he/she needs?

4. Does the health insurance company cover all the treatments recommended by your doctor or health care provider?

Results

Table 1. Demographics by Internalizing Symptom Count

	0 symptoms N=40	1-4 symptoms N=115	5+ symptoms N=79	P-value
Mean age (years)	11.00	11.08	10.47	.38
Ethnicity	82.5% Hispanic/Latinx	46.1% Hispanic/Latinx	40.5% Hispanic/Latinx	**.004***
Gender	45% Female	43% Female	52% Female	.50
Household Income	79.5% under $50,000	70.9% under $50,000	80.3% under $50,000	.23
Currently Insured	85.0%	90.4%	92.4%	.35
Insured by CHIP	65.0%	61.7%	75.9%	.08

Table 2. Diagnoses by Internalizing Symptom Count

	0 symptoms N=40	1-4 symptoms N=115	5+ symptoms N=79	P-value
Any developmental disability/disorder	20%	16.5%	31.6%	**.04***
Autism Spectrum Disorder	2.5%	1.7%	3.8%	.67
ID/DD	10.0%	8.7%	12.7%	.65
Learning Disability	12.5%	12.2%	24.1%	.06
Speech/other language problem	21.1%	15.5%	21.3%	.54
Anxiety disorder	0.00%	1.7%	8.9%	**.02***
ADHD	2.5%	10.4%	16.5%	.07

Table 3. Predictors of Healthcare Access Satisfaction

	Odds Ratio (95% CI)
Internalizing Symptom Count	.210 (-.161, .732)
Disability Status (ID/DD, learning disability, ASD, speech/other language problem)	.569 (-.870, .478)
Ethnicity	.219 (-1.002, .230)

Summary and Conclusions

- Forty participants reported zero internalizing symptoms, 115 reported one to four, and 79 reported 5 or more. There were no group differences with respect to age, gender, household income, or insurance status/source. However, the group with zero internalizing symptoms consisted of significantly more Hispanic/Latinx individuals compared to the other two groups. Individuals with more internalizing symptoms were more likely to have a diagnosis of developmental disability or disorder. Parents/guardians reporting more internalizing symptoms were also more likely to have received a diagnosis of an anxiety disorder.

- Internalizing symptoms failed to predict participants' reported satisfaction with their child's access to healthcare under their insurance coverage. This remained true regardless of developmental disability/disorder diagnosis status and group differences in ethnicity.

- These findings primarily suggest that regardless of number of anxious symptoms reported, developmental disability/disorder diagnosis status, or ethnicity, participants were satisfied with their child's overall access to healthcare. Since most of the participants across all three groups are covered by Colorado CHIP, the findings specifically highlight CHIP's apparent success in providing satisfactory access to healthcare in this sample. Given the evidence of increased likelihood of health disparities among this population, these results are encouraging.

Future Directions

Data were collected prior to the 2016. Since then, research has indicated drastically increasing rates of internalizing behavior symptoms in addition to increases in health disparities among Hispanic/Latinx populations. It is hypothesized these changes are due to perceived anti-immigrant/anti-minority rhetoric, threats of discrimination, and threats of deportation[1]. As such, collecting updated data to capture this likely change in internalizing symptom count may offer new insights not available at the time this study was conducted.

References

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