

New Survey Reveals ADHD in Girls Is Misunderstood

Fifty-nine percent of surveyed mothers of tween girls say they hesitated to speak to a doctor because they thought their daughters would outgrow their behavior

Philadelphia, PA – November 11, 2014 – According to a new survey released today, nearly 50 percent of mothers of tween girls who have been diagnosed with Attention-Deficit/Hyperactivity Disorder (ADHD) reported that they had first attributed their daughters' behavior to "normal" adolescent struggles, and 59 percent reported that they initially hesitated to seek help from a doctor for their daughter. Additionally, 60 percent said they wish they had recognized the symptoms of ADHD earlier and acted sooner.

These findings are part of a nationally representative, multi-arm survey examining awareness, perceptions and attitudes about ADHD among mothers of tween girls ages eight to fourteen, as well as teachers and physicians. The survey, conducted online in July 2014, was designed by Edelman Berland and fielded by Harris Interactive, a Nielsen company, on behalf of Shire Pharmaceuticals (LSE: SHP, NASDAQ: SHPG).

Among mothers of tween girls in general, more than one-third (36 percent) believe one must display hyperactive-impulsive symptoms to be diagnosed with ADHD. To be diagnosed with ADHD, a person must have a certain number of inattentive and/or hyperactive-impulsive symptoms, in addition to meeting other requirements. Only a qualified health care professional can diagnose ADHD.

"Symptoms of ADHD may not be as noticeable in girls because girls are more likely than boys to display inattentiveness rather than the hyperactivity and impulsivity most people associate with the disorder. All too often their mothers and fathers chalk it up to age and stage in development," said Dr. Patricia Quinn, developmental pediatrician, ADHD researcher and author.

Additional key findings from the survey included:

- 29 percent of teachers and health care professionals surveyed believe children will outgrow ADHD symptoms. Previous independent research based on parent report suggests that nearly 50% of children with ADHD may continue to meet the criteria for the disorder in adulthood
- Nearly a third of teachers (30 percent) felt that they do not know a lot about the condition
- 54 percent of adult women diagnosed with ADHD as minors wish they had been diagnosed sooner

"The results of this survey underscore how much education still needs to be done about the full range of ADHD symptoms. It is so important to tune into what's going on with our daughters as individuals and to be willing to talk to their doctors if we think something more serious could be going on," Dr. Quinn continued.

Shire recently introduced a new educational program, in partnership with leading advocacy organization Children and Adults with Attention-Deficit/Hyperactivity Disorder (CHADD), called *keep momming™*, designed to raise awareness about ADHD among mothers of tween girls. The program is anchored by a new digital hub, www.keepprogram.com, which provides tips,

tools and other go-to resources for moms, including a checklist to help recognize the core symptoms of ADHD – inattention, impulsivity, and hyperactivity – and then encourages them to talk to the doctor if they are concerned that their daughter may have ADHD.

“Shire is committed to ongoing research in order to bring important insights, resources and support to those patients and families affected by ADHD, particularly when we recognize an unmet patient need,” said Perry Sternberg, Senior Vice President, Shire Neuroscience Business Unit.

To learn more about ADHD symptoms and access a symptom checklist and additional resources, visit www.Keepmomming.com.

About the Survey

The survey was conducted online in July 2014 among a total of 1,883 people. The survey was designed and managed by Edelman Berland and fielded by Harris Interactive, a Nielsen company. Audiences surveyed included:

- 1,051 moms who have a tween daughter ages eight to fourteen years old, weighted to be nationally representative on age, race/ethnicity and region
- 103 moms who have a tween daughter diagnosed with ADHD, ages eight to fourteen years old
- 223 adult women diagnosed with ADHD, including 117 diagnosed as a minor (younger than 18) and 106 diagnosed in adulthood (18+)
- 303 teachers, including 151 elementary school teachers (1st-5th grade) and 152 middle school teachers (6th-8th grade)
- 203 health care providers, including 100 primary care physicians and 103 pediatricians

About ADHD

Attention-Deficit/Hyperactivity Disorder is a neurobehavioral disorder that manifests as a persistent pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning or development and is inconsistent with developmental level.

ADHD is one of the most common childhood psychiatric disorders. An estimated 11 percent (6.4 million) of US school-aged children have been diagnosed with ADHD in their lifetime, based on the 2011/12 National Survey of Children’s Health, in which parents were asked if a health care practitioner had ever told them their child had ADD or ADHD. Although many people tend to think of ADHD as a childhood problem, 60% to 85% of children with ADHD may continue to meet the criteria for the disorder during their teenage years. Nearly 50% of children with ADHD may continue to meet the criteria for the disorder in adulthood, based on parent report. The disorder is estimated to affect 4.4 percent of US adults aged 18 to 44 based on results from the National Comorbidity Survey Replication. When this percentage is extrapolated to the full US population aged 18 and over, approximately 10 million adults are estimated to have ADHD. Drug treatment may not be appropriate for all patients with ADHD.

The specific etiology of ADHD is unknown. The diagnosis is made utilizing criteria specified in the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, (DSM-5®)* or International Classification of Diseases, 10th revision (ICD-10). Only a trained health care professional can evaluate and diagnose ADHD.

Although there is no cure for ADHD, there are accepted treatments that have been demonstrated to improve symptoms. Standard treatments include educational approaches, psychological therapies which may include behavioral modification, and/or medication.

About Edelman Berland

Edelman Berland is a global, full-service market research firm that provides corporate, non-profit and government clients with strategic intelligence to make their communications and engagements with stakeholders the smartest they can be. The firm specializes in qualitative and quantitative research, measurement, tracking and analysis in reputation, branding and communications. Edelman Berland is part of Edelman, the world's largest public relations company. Edelman Berland has more than 100 employees in offices around the world. For more information, please visit www.edelmanberland.com.

About Nielsen & Harris Interactive

On February 3, 2014, Nielsen acquired Harris Interactive and The Harris Poll. Nielsen Holdings N.V. (NYSE: NLSN) is a global information and measurement company with leading market positions in marketing and consumer information, television and other media measurement, online intelligence and mobile measurement. Nielsen has a presence in approximately 100 countries, with headquarters in New York, USA and Diemen, the Netherlands. For more information, visit www.nielsen.com.

For further information please contact:

Media

Audrey Abernathy	aabernathy@shire.com	1 484 595 2389
Gwen Fisher	gfisher@shire.com	1 484 595 9836

NOTES TO EDITORS

Shire aspires to be as brave as the people we help.

Our strategy is to focus on developing and marketing innovative specialty medicines to meet significant unmet patient needs.

We provide treatments in Neuroscience, Rare Diseases, Gastrointestinal Disorders, and Internal Medicine and are developing treatments for symptomatic conditions treated by specialist physicians in other targeted therapeutic areas, such as Ophthalmology.

www.shire.com

keep momming™ is a trademark of Shire, LLC.

DSM® is a registered trademark of the American Psychiatric Association.

S03668 10/14