COMMENTARY

Three Reasons why Studying Hoarding in Children and Adolescents is Important

Christie L. Burton PhD^{1,2}; Paul D. Arnold PhD^{1,3}; Noam Soreni MD^{4,5}



Abstract

Hoarding is traditionally considered a disorder of adulthood but hoarding symptoms often begin in childhood and adolescence. However, there is very little published research into hoarding in youth. As described in this commentary, the study of hoarding in childhood and adolescence is important because hoarding symptoms: 1) often begin in childhood and adolescence; 2) often are chronic and persist into adulthood; and, 3) are associated with a number of negative outcomes and sequelae. Research into hoarding in youth could help identify individuals at risk for chronic and persistent hoarding disorder as well as determine interventions to change their trajectories. Improved understanding of hoarding in children and adolescents could in turn help minimize the negative effect of hoarding on the affected individuals, their families and society.

Key Words: hoarding, children, adolescents



Résumé

L'accumulation compulsive ou syllogomanie est traditionnellement considérée comme étant un trouble de l'âge adulte mais les symptômes débutent souvent dans l'enfance et l'adolescence. Toutefois, il y a très peu d'études publiées sur l'accumulation compulsive chez les jeunes. Comme le décrit ce commentaire, l'étude de l'accumulation compulsive dans l'enfance et l'adolescence est importante parce que les symptômes de l'accumulation compulsive: 1) commencent souvent dans l'enfance et l'adolescence; 2) sont souvent chroniques et persistent à l'âge adulte; et 3) sont associés à un certain nombre de résultats négatifs et de séquelles. La recherche sur l'accumulation compulsive chez les jeunes pourrait contribuer à identifier les personnes à risque d'un trouble de l'accumulation compulsive chronique et persistant, et à déterminer des interventions pour en changer la trajectoire. Une meilleure compréhension de l'accumulation compulsive chez les enfants et les adolescents pourrait d'ailleurs contribuer à minimiser l'effet négatif de l'accumulation compulsive sur les personnes touchées, leur famille et la société.

Mots clés: accumulation compulsive, enfants, adolescents

Hoarding disorder (HD) is a new addition to the DSM-5, classified under Obsessive-Compulsive and Related Disorders. HD is characterized by difficulty discarding possessions, regardless of their actual value, which can result in clutter as well as significant distress or impairment. Excessive acquisition of items, either purchased or free, is

frequently present in HD but is not required for a diagnosis (American Psychiatric Association, 2013). The estimated prevalence of HD in adults is 2-5% (Samuels et al., 2008) making it a relatively common psychiatric disorder. Hoarding is often considered a disorder of adulthood, however, accumulating data suggests that the roots of hoarding begin

¹Genetics & Genome Biology, Hospital for Sick Children, Toronto, Ontario

²Psychiatry, Hospital for Sick Children, Toronto, Ontario

³The University of Calgary, Mathison Centre for Mental Health Research and Education, Calgary, Alberta

⁴Pediatric OCD Consultation Team, Anxiety Treatment and Research Centre, St. Joseph's Healthcare, Hamilton, Ontario

⁵Psychiatry and Behavioural Neurosciences, McMaster University, Hamilton, Ontario

Corresponding E-mail: c.burton@utoronto.ca

Submitted: February 24, 2015; Accepted: March 4, 2015

in childhood and adolescence. This commentary puts forth three reasons why studying hoarding in youth is important and could be very beneficial to the affected individuals, their families and society.

Reason 1: Hoarding often begins in childhood and adolescence

Retrospective studies of adults who hoard report that for the majority of participants (70%) hoarding behaviours began before the age of 20, with an estimated median age ranging from 11-15 years of age (Tolin, Meunier, Frost, & Steketee, 2010). The estimated prevalence of hoarding in adolescents (2%) is similar to that observed in adults (Ivanov et al., 2013) while the prevalence in children is still unknown.

Although hoarding often begins before adulthood, hoarding symptoms are more often mild, as opposed to moderate or severe, during childhood and adolescence (Tolin et al., 2010). Hoarding symptoms may be mild during childhood because parents can prevent clutter and children do not have the same financial means as adults to acquire items (Storch, Rahman, et al., 2011). Despite the ability for parents to restrict their children from excessively acquiring items and accumulating clutter, children who hoard may still be experiencing distress and these behaviours may persist into adulthood (Palermo et al., 2010). However, children infrequently present to a clinic with hoarding symptoms as the primary symptom of concern, with a likely reason being that parents are able to control hoarding symptoms to a certain extent. In our Hamilton clinic, parents of 42 of 130 referred youth reported hoarding problems. Of these youth, hoarding was the primary concern in only two families (unpublished data). Children who hoard are likely to enter a clinic with comorbid obsessive-compulsive disorder (OCD), attention-deficit/hyperactivity disorder (ADHD) or anxiety – the symptoms of which often take precedence over hoarding (i.e., in the minds of the parents, referring person, etc.). An important implication of how children who hoard enter the clinic, as well as the fact that hoarding only was recognized as a separate entity in DSM-5, is that the vast majority of published studies of hoarding in children and adolescents are in samples ascertained based on another disorder (primarily OCD, but also ADHD; e.g., Hacker et al., 2012; Samuels et al., 2014). Hoarding has been recognized as a disorder that is often independent of OCD which may have distinct cognitive, neural, genetic and clinical correlates (American Psychiatric Association, 2013; Hacker et al., 2012; Mataix-Cols & Pertusa, 2012). Thus studying hoarding only in the context of OCD or other childhood disorders prevents a clear understanding of the distinct nature and features of hoarding as well as the early development and course of HD.

Reason 2: Hoarding symptoms are often chronic

Studies show that in OCD patients, the course of hoarding compared to other types of OCD symptoms is less likely to be episodic or waxing & waning and more likely to be constant, worsening with a plateau or deteriorating (Kichuk et al., 2013). As a result childhood-onset OCD with hoarding compared to without hoarding symptoms was less likely to be clinically remitted in adulthood (Bloch et al., 2009; Palermo et al., 2010). Similarly, in a community sample of self-reported adults who compulsively hoard 94% reported a chronic or deteriorating course of hoarding symptoms (Tolin et al., 2010). Therefore if hoarding symptoms are present in childhood, they are likely to persist into adulthood and become chronic. As a result, a better understanding of what factors are likely to lead to the persistence of hoarding symptoms from childhood into adulthood would be helpful to curb hoarding in childhood and prevent a chronic symptom course.

Reason 3: Hoarding is a poor prognostic factor

Hoarding has been linked to a long list of negative sequelae and outcomes. These include an increased risk of obesity, as well as several psychiatric conditions including alcohol-use disorders, and depression, among others (see Grisham & Norberg, 2010 for review). In addition, hoarding is linked to increased risk of injury, fire, poor sanitation and other health risks, as well as reduced overall health (Grisham & Norberg, 2010; Mataix-Cols & Pertusa, 2012). Individuals who hoard compared to those who do not hoard are also reported to have reduced social functioning, oppositionality, quality of life in adulthood, insight, and if present with OCD, hoarding symptoms are associated with poorer treatment outcomes (Bloch et al., 2014; Hacker et al., 2012; Palermo et al., 2010; Samuels et al., 2014). Importantly, negative outcomes are not only present with hoarding in adults but in children and adolescents as well (Hacker et al., 2012; Samuels et al., 2014).

Thus it is important to study hoarding during childhood and adolescence because HD: 1) often begins in childhood; 2) has a chronic course; and, 3) has many negative sequelae and outcomes. Research into the nature of hoarding in children and the factors that predict the persistence of hoarding symptoms into adulthood could be critical in helping to prevent chronic and impairing clinical course. Identifying children engaging in hoarding behaviours and understanding the best interventions to help minimize these behaviours would be an important first step in helping to treat and hopefully remit hoarding symptoms before they transition from mild to moderate or severe symptoms, become engrained and difficult to treat.

Several aspects of hoarding in children and adolescents need to be better understood. For example, longitudinal studies would be helpful to identify the proportion of children with HD who continue to be symptomatic into adulthood as well as the risk factors associated with the persistence of hoarding symptoms. Prospective studies in children would be particularly useful in delineating the etiology of hoarding which would be informative for both prevention and treatment. In addition, expanding the ascertainment of hoarding samples beyond OCD samples would be valuable. One option is to recruit patients from general outpatient clinics where hoarding issues may be present but not disclosed by parents without direct questions about their children's hoarding behaviour. Another option is to use communitybased samples similar to Ivanov et al. (2013) which would make it possible to reach children with hoarding difficulties that would not otherwise present to a clinic. Communitybased samples also circumvent the ascertainment bias inherent in clinical samples (Caron & Rutter, 1991). Published research into the cognitive, neurobiological and genetic correlates of hoarding is almost non-existent in youth who hoard. This type of research would be valuable in helping to understand the biological mechanisms involved in hoarding and to identify possible in-roads for treatment. Finally, conducting research using specialized measures designed to assess hoarding behaviours in children and adolescents, such as the Child Saving Inventory (Storch, Muroff, et al., 2011) which measures the four dimensions of hoarding (excessive acquisition, difficulty discarding, clutter, and impairment) would also improve the quality of research and wealth of knowledge on hoarding in youth.

In summary, further research into children and adolescents could help us understand the etiology of hoarding as well as identify and help children at risk to change their trajectories before compulsive hoarding becomes severe and brings along with it a number of negative consequences. Hoarding not only is associated with serious negative implications for the person affected, but their families and on a broader level society: hoarding is known to be a significant economic and social burden (Tolin, Frost, Steketee, Gray, & Fitch, 2008). Knowing that hoarding is less severe in childhood gives us a window of opportunity to identify and act to prevent a chronic disorder. Research into hoarding in children and adolescents will be critical to making the most of this opportunity.

Acknowledgement/Conflicts of Interest

The authors have no conflicts of interest to disclose.

References

American Psychiatric Association. (2013). Diagnositic and statistical manual of mental disorders (5th ed.). Arlington, VA: American Psychiatric Publishing.

- Bloch, M. H., Bartley, C. A., Zipperer, L., Jakubovski, E., Landeros-Weisenberger, A., Pittenger, C., & Leckman, J. F. (2014). Meta-analysis: Hoarding symptoms associated with poor treatment outcome in obsessive-compulsive disorder. *Molecular Psychiatry*, 19(9), 1025-1030. doi: 10.1038/mp.2014.50
- Bloch, M. H., Craiglow, B. G., Landeros-Weisenberger, A., Dombrowski,
 P. A., Panza, K. E., Peterson, B. S., & Leckman, J. F. (2009).
 Predictors of early adult outcomes in Pediatric-Onset Obsessive-Compulsive Disorder. *Pediatrics*, 124(4), 1085-1093. doi: 10.1542/peds.2009-0015
- Caron, C., & Rutter, M. (1991). Comorbidity in child psychopathology: Concepts, issues and research strategies. *Journal of Child Psychology and Psychiatry*, 32(7), 1063-1080.
- Grisham, J. R., & Norberg, M. M. (2010). Compulsive hoarding: Current controversies and new directions. *Dialogues in Clinical Neuroscience*, 12(2), 233-240.
- Hacker, L. E., Park, J. M., Timpano, K. R., Cavitt, M. A., Alvaro, J. L., Lewin, A. B.,...Storch, E. A. (2012). Hoarding in children with ADHD. *Journal of Attention Disorders*. doi: 10.1177/1087054712455845
- Ivanov, V. Z., Mataix-Cols, D., Serlachius, E., Lichtenstein, P., Anckarsater, H., Chang, Z.,...Ruck, C. (2013). Prevalence, comorbidity and heritability of hoarding symptoms in adolescence: A population based twin study in 15-year olds. *PLoS ONE*, 8(7), e69140. doi: 10.1371/journal.pone.0069140
- Kichuk, S. A., Torres, A. R., Fontenelle, L. F., Rosario, M. C., Shavitt, R. G., Miguel, E. C.,...Bloch, M. H. (2013). Symptom dimensions are associated with age of onset and clinical course of obsessive-compulsive disorder. *Progress in Neuro-Psychopharmacology & Biological Psychiatry*, 44, 233-239. doi: 10.1016/j.pnpbp.2013.02.003
- Mataix-Cols, D., & Pertusa, A. (2012). Annual research review: Hoarding disorder: Potential benefits and pitfalls of a new mental disorder. *Journal of Child Psychology and Psychiatry*, 53(5), 608-618. doi: 10.1111/j.1469-7610.2011.02464.x
- Palermo, S. D., Bloch, M. H., Craiglow, B., Landeros-Weisenberger, A., Dombrowski, P. A., Panza, K.,...Leckman, J. F. (2010). Predictors of early adulthood quality of life in children with obsessive-compulsive disorder. *Social Psychiatry and Psychiatric Epidemiology*, 46(4), 291-297. doi: 10.1007/s00127-010-0194-2
- Samuels, J., Grados, M. A., Riddle, M. A., Bienvenu, O. J., Goes, F. S., Cullen, B.,...Nestadt, G. (2014). Hoarding in children and adolescents with Obsessive-Compulsive Disorder. *Journal of Obsessive Compulsive Related Disorders*, *3*(4), 325-331. doi: 10.1016/j. jocrd.2014.08.001
- Samuels, J. F., Bienvenu, O. J., Grados, M. A., Cullen, B., Riddle, M. A., Liang, K.-y.,...Nestadt, G. (2008). Prevalence and correlates of hoarding behavior in a community-based sample. *Behaviour Research and Therapy*, 46(7), 836-844. doi: 10.1016/j.brat.2008.04.004
- Storch, E. A., Muroff, J., Lewin, A. B., Geller, D., Ross, A., McCarthy, K.,...Steketee, G. (2011). Development and preliminary psychometric evaluation of the Children's Saving Inventory. *Child Psychiatry and Human Development*, 42(2), 166-182. doi: 10.1007/ s10578-010-0207-0
- Storch, E. A., Rahman, O., Park, J. M., Reid, J., Murphy, T. K., & Lewin, A. B. (2011). Compulsive hoarding in children. *Journal of Clinical Psychology*, 67(5), 507-516. doi: 10.1002/jclp.20794
- Tolin, D. F., Frost, R. O., Steketee, G., Gray, K. D., & Fitch, K. E. (2008).
 The economic and social burden of compulsive hoarding. *Psychiatry Research*, 160(2), 200-211. doi: 10.1016/j.psychres.2007.08.008
- Tolin, D. F., Meunier, S. A., Frost, R. O., & Steketee, G. (2010). Course of compulsive hoarding and its relationship to life events. *Depression and Anxiety*, *27*(9), 829-838. doi: 10.1002/da.20684