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Assessment of Conduct Disorder in Primary Care: Integrative Review

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N749A-M1: Nurse Practitioner Qualifying Project. Manuscript Development

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December 3rd, 2021

Abstract

Conduct disorder and behavioral problems in children are the 6th most prominent childhood health disorder within the United States of America. Early recognition and interventions have shown to improve outcomes and reduce lifelong adult sequela. Evidence suggests that primary care providers are not confident or knowledgeable about identification and assessment of the disorder. The manuscript examines the prevalence, co-morbidities, trajectories, mortality risk and outcomes of conduct disorder. Health disparities and diagnostic stigma are also addressed. Additionally, the manuscript provides primary care providers with evidence-based research and recommendations for prompt identification and screening. Conduct disorder has devastating individual, social, and economic ramifications and primary care providers play a key role in prompt identification and treatment.

Keywords: Children, Conduct disorder, mental health, pediatric, primary care, primary care provider

Introduction

Conduct disorder (CD) is a mental health condition which starts in childhood and can cause detrimental effects well into adulthood. CD is described by the American Psychiatric Association (APA) as “a repetitive and persistent pattern of behavior in which the basic rights of others or major age-appropriate societal norms or rules are violated” (2013, p. 469). CD has specific diagnostic criteria in which at least three out of 15 criteria must be met and at least one of these must be within the previous six months. Criteria is categorized under these concepts, aggression to animals or people, destruction of property, deceitfulness or theft and evidence of serious violations of rules (APA, 2013). The manuscript will outline prevalence of CD and the individual and social ramifications of the disorder. There will be an integrated review of the evidence of CD and a synthesis of that evidence and the consequent clinical implications for primary care providers (PCPs). PCPs include pediatricians, family practice doctors and family nurse practitioners.

Background

Within the United States of America (USA), national survey data from the Health Resources and Services administration Maternal and Child Health Bureau (2020) found that behavioral and conduct problems of children aged three to 17 years of age is 6.9% of the population and is the 6th highest childhood prevalent health condition. Anxiety is the only childhood mental health condition more prevalent. It is important to identify and assess for CD because CD impacts an individual’s academic progress, increases potential for criminality, increases the risk for other mental health and substance abuse disorders later in life and is also associated with a high societal and economic burden. In addition, health disparities such as low economic status, poverty and community violence increase the risk of CD (Fairchild et al.,

2019). Early identification of CD improves life-long psychological outcomes for these children (Frick, 2016). U.S Department of Health and Human Services (USDHHS, 2021a) state that mental, emotional, and behavioral disorders begin early in life and evidence illustrates that prevention through early childhood interventions produces the best outcomes. The specific Healthy People 2030 objectives that pertain to CD are to identify and increase the number of children and adolescents with a serious emotional disturbance to receive mental health treatment (U.S Department of Health and Human Services., 2021b). There is a need for the CD education of PCPs not only because of national prevalence, but there is evidence to suggest that PCPs do not receive enough CD education and are not confident enough to identify, assess and/or refer the condition (Balestra, 2019; Baum et al., 2019; Lempp et al., 2016). However, onsite education training within primary care has had a positive relationship between intervention uptake and change in practice (Baum et al., 2019).

Review of the Literature

Literature Search Strategies

A review of the evidence relating to CD was performed. The following PICOT (Population, Intervention, Comparison, Outcome and Time) question was used to help guide the literature search: How would the initiation of an educational intervention about CD and integration of a mental health assessment tool increase knowledge and confidence among PCPs compared to status quo measures over a period of six months? A systematic search was conducted using the following databases from the University of San Francisco Library: PubMed, CINAHL, Cochrane Database of Systematic Reviews, APA Psych Info, AHRQ Evidence reports, Joanna Briggs Institute EBP database and National Institute for Healthcare and Clinical Excellence Database. The key words used within the searches were: Conduct disorder, primary

care, pediatricians, social workers, anti-social personality disorder in children, nurse practitioner, pediatric mental health assessment tool, assessment tool and doctor. The search term CD gave 258 results on CINAHL, 3000 on PubMed, 20 articles on APA Psych Info and 16 articles on Cochrane Database of Systematic Reviews. To narrow the scope on Pub Med and CINAHL a combination of search terms was used from the above mentioned to narrow down the specific focus of CD. The search was narrowed down further by using a publication date within the last six years and English language and citation backward searching with most recent articles.

Summary of Evidence

Throughout the literature review and synthesis, the John Hopkins Nursing Evidence-Based Practice (JHNEBP) appraisal tools was utilized. JHNEBP appraisal tools enable research and non-research evidence to be analyzed through questioning elements of that evidence. The user can then establish what level and quality of evidence is appropriate. Levels of evidence range from level one to level five and are dependent on the strength and type of study design. The quality of the evidence is either categorized as: A is very good quality; B is good quality and C is poor quality (Dang & Dearholt, 2018).

Conduct Disorder Mortality Risk and Outcomes

Border et al. (2018) found that mortality hazard risk for adolescents who had CD and their siblings was 4.9 times higher than those children without CD (hazard ratio 1.18, $p < .001$). In the prospective, longitudinal, cohort study, children with CD and their siblings were recruited from court records, juvenile correctional systems, and substance abuse programs within the USA. It was that found that adolescents with CD had higher mortality risk than their siblings and sibling mortality risk was higher than children without CD (Border et al., 2018). Within primary care practice it is important for PCPs to recognize that mortality risk is significant not only for

children with CD, but also their siblings and families, and screening should be completed accordingly. The JHNEBP appraisal score is Level II, A, high quality.

The earliest age of the participants in Border et al. (2018) study were 16 years of age. These children were already either part of the juvenile correctional system or in substance abuse programs. When those participants were diagnosed with CD is unclear, but evidence from Bevilacqua et al. (2017) found that the earlier children are diagnosed, the poorer the outcome. So, these results could be potentially even more devastating. Bevilacqua et al. (2017) also found in their meta-analysis of longitudinal studies that children who had adolescent onset and childhood limited CD also had poorer psychological outcomes than children with low levels of CD symptoms. However, early onset CD had the worst outcomes and early interventions, and identification is recommended to minimize antisocial behavior. The JHNEBP appraisal score is Level III, B, good quality.

Moore et al. (2017) looked at different sub types of CD: Adolescent limited (AL) and life course persistent (LCP) CD, through a retrospective analysis of epidemiological and cross-sectional studies in the USA. Moore et al. (2017) used Moffitt's taxonomy theory to guide the investigation into the prevalence, predictors, and outcomes of these sub types. Moore et al. (2017) found that LCP CD prevalence is 1.1% and AL CD 9.9% of the sampled data (N = 20130). Low socioeconomic status, lack of maternal closeness and bonding and harsh discipline increased the odds of LCP CD. LCP is more strongly influenced by early childhood factors than AL CD. LCP CD has increased odds of substance abuse. The JHNEBP appraisal score is Level II, B, good quality.

Conduct Disorder Comorbidities and Trajectories

The National Institute for Health and Care Excellence (NICE, 2017) established clinical guidelines for the management of CD within the United Kingdom (UK). Recommendations are based on a vast array of evidence-based research. It was found that there are co-morbidities that can exist with CD, mainly attention deficit hyperactivity disorder (ADHD), and PCPs need to be aware of this and screen accordingly. Within the USA there is not any evident clinical guidelines for CD; only a policy statement which incorporates all pediatric mental health disorders (Foy, 2019). The clinical guideline identifies that the strengths and difficulties questionnaire (SDQ) is appropriate for CD screening and gives recommendations for parental training and pharmacological therapies (NICE, 2017). Interestingly, it advises PCPs to be aware of diagnostic bias and potential stigma due to diagnosis. The JHNEBP appraisal score is Level IV, A, high quality.

Bakker et al. (2017) conducted a meta-analysis, which included the clinical guideline evidence from NICE, (2017) to examine psychological treatments for CD. They concluded that findings support the use of psychological treatments, especially in children under ten years of age and ADHD was the biggest co-morbidity. There is a lack of evidence supporting what the best treatment is, mainly because of a lack of rigor in research, due to poor study design and sample size. The JHNEBP appraisal score is Level I, B, good quality.

Patel et al. (2018) found in their quantitative, retrospective analysis of demographic predictors and comorbidities of hospitalized children with CD in the USA, that there is the potential for diagnostic bias, just as NICE (2017) found. Patel et al. (2018) identified that black males under the age of 11 have the highest risk of inpatient admission with CD. These patients also have the highest risk of co-morbid psychosis and depression. Low-income families have a

1.5 times higher risk of inpatient admission than high income families. The JHNEBP appraisal score is Level II, B, good quality.

Fadus et al. (2019) also identifies how health disparities can increase CD. Fadus et al. (2019) discusses how bias may misdiagnose Black and Hispanic youth, and these children are more likely to receive a diagnosis of CD than non-Hispanic white children, who are more likely to be diagnosed with ADHD. Also, having an unstable support network whether it be inconsistent, harsh parenting practices, family dysfunction, caregiver neglect and abuse, and or frequent changes in caregivers has shown to increase the risk of CD (Fadus et al., 2019). The research highlights the effects of health disparities within the USA and the importance of accurate assessment and diagnosis of CD and co-morbidities that present with CD.

Finally, Gutman (2019) examined early predictors and differences in group-based trajectories of CD according to ethnicity within the UK. Families of children aged nine months to 14 years were interviewed in a longitudinal study and through trajectory analysis found that mixed ethnicity children had the biggest increase in CD severity. All children who had a bad child-parent relationship had an increased risk of CD. Gutman (2019) also found that a supportive family and social support networks may have positive buffered effects on outcomes. The study can be applied to the USA because PCPs can identify those children who maybe more at risk of CD because of a lack of support system and possible cultural identity issues. The JHNEBP appraisal score is Level III, B, high quality.

Primary Care Providers Lack of Knowledge and Confidence

Baum et al. (2019) study wanted to improve PCPs management of pediatric mental health conditions and did this through onsite training within 29 primary care practices within the USA. The study was a quantitative, quasi-experimental, one group pretest-posttest design and clinical

confidence was measured over time using a linear regression model. A Pearson correlation coefficient was used to assess the relationship between change in clinical confidence and program uptake. It was found that clinical confidence increased on average by 20% throughout the training and there was a positive relationship between intervention uptake and change in practice. The study concluded that PCPs did have a lack of knowledge and confidence about mental health conditions, including CD, and the onsite trainings did improve this. Therefore, an educational intervention about CD, with onsite trainings will be of value to PCPs. The JHNEBP appraisal score was Level II, B, good quality.

Foy et al. (2019) formulated a manuscript, published by the American Academy of Pediatrics to outline a revised policy statement about pediatric mental health competencies in pediatric primary care. One of the purposes of the policy statement is to improve the assessment and treatment of children who display disruptive and/or aggressive behavior. Evidence shows that there is a lack of training and confidence to treat and counsel these children. Evidence similarly found by Baum et al. (2019). The policy statement gives evidence-based behavioral recommendations for children with disruptive and aggression problems and examples of brief interventions to use in primary care. Competencies are outlined that demonstrate that PCPs can analyze and interpret results from mental health screenings and if a higher level of care is needed referral criteria is outlined in an algorithm. The competencies in the policy statement provide some guidance when considering the scope of practice of PCPs treating mental health conditions and can be incorporated into clinical decision making. The JHNEBP appraisal score is Level IV, A, high quality.

Lempp et al. (2016) also found that physicians have a lack of knowledge and confidence when treating children with CD. They surveyed physicians and pediatricians in primary care and

found that both ranked four out of five for importance of knowledge about CD. Also, when asked to rank 17 psychiatric diagnoses at level of need for knowledge CD ranked 8th with physicians and 5th with pediatricians. The JHNEBP appraisal score is Level II, B, good quality. It is therefore pertinent to the PICOT question: PCPs do have a lack of knowledge and confidence in assessing and treating children with CD. Also, educational interventions do help increase clinical knowledge and confidence resulting in a PCPs being able to identify children with certain traits of CD and their existing comorbidities. Also, PCPs are then able to provide brief interventions such as parenting education and refer to mental health services.

Synthesis of the Evidence

All the evidence presented is either of high or good quality. The levels of evidence are mostly at level II and III, which indicates that studies included were mostly research based. The main criticisms of the studies used for the review are from a methodological stance. In two of the studies (Baum et al. 2019; Border et al. 2018) there is no random assignment, however within quasi-experimental design with participants sometimes this can be challenging. Also, the meta-analysis conducted by Bevilacqua et al. (2017) used only two databases to conduct their study search but did implement other sound methodology such as using effect sizes to ascertain acceptable sample size. However, both the clinical guideline (NICE, 2017) and policy statement (Foy et al. 2019) used within the review were updated within the previous five years, as recommended by Dang and Dearholt (2018). Also, they both are sponsored by a regulatory body, but did not utilize appraisal scoring for separate research studies used within the evidence provided.

All studies did use adequate sample sizes and are generalizable to PCPs in the USA. Even those studies outside of the USA, where healthcare systems operate differently, are applicable to

PCPs due to the context of the findings. When applicable, all studies that used assessment tools, used these tools appropriately to guide assessment and diagnosis. However, only one study (Gutman, 2019) mentioned the internal reliability of the tools used. The consensus found in the studies was that the strengths and difficulties (SDQ) assessment tool was used to assess for CD.

Gaps surrounding knowledge of CD were identified. The need for education of PCPs including pediatricians, family practice doctors and FNPs about CD and the mental health conditions we see that coexist with CD (Balestra, 2019; Baum et al., 2019; Lempp et al., 2016). There is not a mental health assessment tool used within most primary care offices to assess for CD symptoms. There is also not a mental health assessment tool that screens children's overall mental health. The SDQ not only assesses for signs of CD, but also assesses for emotional symptoms, hyperactivity/inattention, peer relationship problems and prosocial behavior (Youth in Mind, 2021).

Clinical Implications

Research about PCPs confidence and knowledge relating to CD is limited to medical doctors and does not include nurse practitioners, who also work within primary care. Currently family nurse practitioners (FNPs) scope of practice does not allow treatment of many pediatric mental health disorders. Although, assessment and referral of CD should technically be within the scope of practice, potentially this could be a gray area. Mental health competencies produced by the American Academy of Pediatrics (Foy et., 2019) help, but state regulatory guidelines for FNPs scope of practice in pediatric mental health should be clarified.

PCPs need to be aware of how health disparities can alter risk of CD and evaluate their own potential personal biases. Diagnostic bias can include incorrect diagnosis or reluctance to diagnose and assess children for CD due to diagnostic stigma (Patel et al., 2018). However,

research has shown that early interventions improve outcomes. To aid in diagnostic accuracy and reduce diagnostic bias valid instrumental tools that assess for CD should be implemented, and assessment should not be based on just diagnostic criteria. It is evident that other mental health co-morbidities exist with CD, therefore PCPs need to recognize and screen accordingly.

Discussion

There are knowledge gaps specific to primary care that were identified from the evidence. Firstly, all research about the lack of knowledge and confidence in assessing CD is formulated from medical doctors and not nurse practitioners. FNPs have a fundamental role within primary care. However, in both FNPs and medical school curriculum there is no education about CD and family practice doctors have identified the need for this education (Balestra, 2019; Baum et al., 2019; Lempp et al., 2016). The American Academy of Pediatrics (Foy et al., 2019) published pediatric mental health competencies in primary care to improve the assessment and treatment of children who display disruptive and/or aggressive behavior. Best practice includes incorporating a childhood assessment tool into practice and integration of mental health care into primary care. Currently, apart from the PHQ-A, which is recommended to screen depression in over 12-year old's (United States Preventative Services Taskforce, 2016) there are no childhood screening tools used within primary care for CD.

Conclusion

CD is a detrimental condition that can impact children for the rest of their lives and has a high societal and economic burden (Fairchild et al., 2019). PCPs are often the first healthcare provider to see the child and family and generally are a constant in that family's life. Therefore, PCPs can form a trusting relationship with both child and family and are key to not only following the child's physical development, but also that child's mental health. Lack of

education and confidence about treating most childhood mental health conditions including CD is lacking within primary care (Balestra, 2019; Baum et al., 2019; Lempp et al., 2016). It is evident from the literature review that early identification and assessment of children is imperative to improve outcomes and prevent future lifelong sequela.

References

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). American Psychiatric Publishing.
<https://doi.org/10.1176/appi.books.9780890425596>
- Bakker, M., Greven, C., Buitelaar, J., & Glennon, J. (2017). Practitioner review: Psychological treatments for children and adolescents with conduct disorder problems - a systematic review and meta-analysis. *Journal of Child Psychology and Psychiatry*, *58*(1), 4–18.
<https://doi.org/10.1111/jcpp.12590>
- Balestra, M. L. (2019). Family nurse practitioner scope of practice issues when treating patients with mental health issues. *The Journal for Nurse Practitioners*, *15*(7), 479–482.
<https://doi.org/10.1016/j.nurpra.2018.11.007>
- Baum, R. A., King, M. A., & Wissow, L. S. (2019). Outcomes of a statewide learning collaborative to implement mental health services in pediatric primary care. *Psychiatric Services*, *70*(2) 123–129. <https://doi.org/10.1176/appi.ps.201800163>
- Bevilacqua, L., Hale, D., Barker, E. D., & Viner, R. (2017). Conduct problems trajectories and psychosocial outcomes: A systematic review and meta-analysis. *European Child & Adolescent Psychiatry*, *27*(10), 1239–1260. <https://doi.org/10.1007/s00787-017-1053-4>
- Border, R., Corley, R. P., Brown, S. A., Hewitt, J. K., Hopfer, C. J., McWilliams, S. K., Rhea, S. A., Shriver, C. L., Stallings, M. C., Wall, T. L., Woodward, K. E., & Rhee, S. H. (2018). Independent predictors of mortality in adolescents ascertained for conduct disorder and substance use problems, their siblings and community controls. *Addiction*, *113*(11), 2107–2115. <https://doi.org/10.1111/add.14366>

- Dang, D., & Dearholt, S. L. (2018). *Johns Hopkins nursing evidence-based practice: Models and guidelines* (3rd ed.). Sigma Theta Tau International.
- Fairchild, G., Hawes, D. J., Frick, P. J., Copeland, W. E., Odgers, C. L., Franke, B., Freitag, C. M., & De Brito, S. A. (2019). Conduct disorder. *Nature Reviews Disease Primers*, 5(1). <https://doi.org/10.1038/s41572-019-0095-y>
- Fadus, M. C., Ginsburg, K. R., Sobowale, K., Halliday-Boykins, C. A., Bryant, B. E., Gray, K. M., & Squeglia, L. M. (2019). Unconscious bias and the diagnosis of disruptive behavior disorders and ADHD in African American and Hispanic youth. *Academic Psychiatry*, 44(1) 95–102. <https://doi.org/10.1007/s40596-019-01127-6>
- Foy, J. M., Green, C. M., & Earls, M. F. (2019). Mental health competencies for pediatric practice. *Pediatrics*, 144(5), e20192757. American Academy of Pediatrics. <https://doi.org/10.1542/peds.2019-2757>
- Frick, P. J. (2016). Current research on conduct disorder in children and adolescents. *South African Journal of Psychology*, 46(2), 160–174. <https://doi.org/10.1177/0081246316628455>
- Gutman, L. M. (2019). Do conduct problem pathways differ for black and minority ethnic children in the UK? An examination of trajectories from early childhood to adolescence. *Journal of Youth and Adolescence*, 48(10), 1967–1979. <https://doi.org/10.1007/s10964-019-01116-w>
- Health Resources and Services Administration Maternal and Child Health Bureau. (2020). *National survey of children's health. NSCH data brief*. <https://mchb.hrsa.gov/sites/default/files/mchb/Data/NSCH/nsch-data-brief.pdf><https://mchb.hrsa.gov/sites/default/files/mchb/Data/NSCH/nsch-data-brief.pdf>

- Lempp, T., Heinzl-Gutenbrunner, M., & Bachmann, C. (2016). Child and adolescent psychiatry: Which knowledge and skills do primary care physicians need to have? A survey in general practitioners and paediatricians. *European Child & Adolescent Psychiatry*, 25(4) 443–451. <https://doi.org/10.1007/s00787-015-0757-6>
- Moore, A. A., Silberg, J. L., Roberson-Nay, R., & Mezuk, B. (2017). Life course persistent and adolescence limited conduct disorder in a nationally representative US sample: Prevalence, predictors, and outcomes. *Social Psychiatry and Psychiatric Epidemiology*, 52(4), 435–443. <https://doi.org/10.1007/s00127-017-1337-5>
- National Institute for Health and Care Excellence. (NICE, 2017). *Antisocial behaviour and conduct disorders in children and young people: Recognition and management* (No. CG158). <https://www.nice.org.uk/guidance/cg158>
- Patel, R., Amaravadi, N., Bhullar, H., Lekireddy, J., & Win, H. (2018). Understanding the demographic predictors and associated comorbidities in children hospitalized with conduct disorder. *Behavioral Sciences*, 8(9) 80. <https://doi.org/10.3390/bs80900>
- U.S Department of Health and Human Resources. (2021a). *Healthy people 2020. Mental health and mental health disorders*. <https://www.healthypeople.gov/2020/topics-objectives/topic/mental-health-and-mental-disorders>
- U.S Department of Health and Human Resources. (2021b). *Healthy people 2030. Increase the number of children and adolescents with serious emotional disturbance who get treatment*. <https://health.gov/healthypeople/objectives-and-data/browse-objectives/mental-health-and-mental-disorders/increase-number-children-and-adolescents-serious-emotional-disturbance-who-get-treatment-mhmd-d01>

United States Preventive Services Taskforce. (2016). *Depression in children and adolescents: Screening.*

<https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/depression-in-children-and-adolescents-screening#fullrecommendationstart>

Youth in Mind. (2021). *SDQ. Information for researchers and health professionals about the strengths and difficulties questionnaire.* <https://www.sdqinfo.org>