

Implications of identifying the callous-unemotional subpopulation of children wit...



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Callous-unemotional traits (CU) are characterised by limited prosocial emotions, such as lack of guilt, care or empathy (American Psychiatric Association, 2013). CU traits in children with conduct problems (CP) such as disruptive behaviour disorders (DBD; Conduct Disorder (CD) and Oppositional Defiant Disorder (ODD)) present a subpopulation with more severe externalising problems and poorer treatment outcomes (Kimonis, Bagner, Linares, Blake, & Rodriguez, 2014). This essay will discuss the clinical utility of identifying this CU subpopulation with CP (hereafter abbreviated as CP+CU subpopulation) for investigating the role of CU traits in developmental pathways to childhood CP, as well as its usefulness as an imperative diagnostic and prognostic factor for antisocial behaviour (Frick, Ray, Thornton, & Kahn, 2014b). Drawing information from past research and literature, it will be argued that the demarcation of the CP+CU subpopulation evince the predictive validity of CU traits as developmental indicators of risk for severe and aggressive CP. Conclusively, it will also be argued that there is a need to prioritise an in-depth diagnosis for CU traits in early childhood, not only for CD but more broadly across DBD and CP, and vary the treatment approaches for the CP+CU subpopulation from those without CU traits.

Literature in child psychopathology indicates that CU children with CP uniquely differ in their antisocial characteristics and behaviour measures from those without CU traits within the heterogenous population of children with DBD and CP (Frick & Morris, 2004). This suggests that delineating CU children allows for the targeted investigation of a more homogenous subpopulation and how such characteristics underlie a distinct developmental trajectory to CP (Frick, Ray, Thornton, & Kahn, 2014a;

Kimonis & Armstrong, 2012). Past research involving the CP+CU subpopulation in school-based, juvenile and outpatient samples observed more aggressive, severe and stable antisocial behaviour compared to those with CP only, and indications of increased risk for early-age onset and concurrent and future delinquency (Rowe et al., 2010; Frick & White 2008; Frick & Dantagnan, 2005). Frick and colleagues' (2014b) systematic review of 118 studies in the child CP literature corroborates this, where high levels of CU traits were presented in 20 to 50% of children with serious CP. While this estimation is flawed by a large variation dependent on the type of sample and trait measurement, their summative analyses suggest the need to recognise the CP+CU group as an at-risk, homogenous subpopulation differentiated from the heterogenous youth with CP, DBD and aggressive behaviour (Rowe et al., 2010).

Identifying the CU subtype of CP enables a focused investigation of the CU traits and their distinct correlates to antisocial behaviour that have implications for understanding its development to CP and further antisocial outcomes (Frick & White, 2008; Frick et al., 2014a). Particularly, the temperamental style of CU children characterised by fearlessness, reward-dominance, low responsivity to punishment and emotional (negative or distress) cues suggest a distinct causal mechanism underpinning the antisocial behaviour of the CP+CU subpopulation compared to those with CP only (Frick et al., 2014b). Theoretical implications for understanding such operations of CU traits include Frick and Viding's (2009) developmental model for child CP. The model suggested that CU children's characteristic temperaments interfere with normal conscience development and moral

socialization by inhibiting experiences of internal states including anxiety, guilt and empathy. This positions children with CU traits at risk of deficits in cognitive or emotional regulation and processing and more critically antisocial and disruptive behavioural outcomes. Previous research (Barker, Oliver, Viding, Salekin, & Maughan, 2011) present supporting demonstrations of this model, where fearless temperaments at age 2 predicted CU traits at age 13. Additionally, Blair, Monson and Frederickson's (2001) model based on the development of empathic concern proposed that conditioning of response to distress and negative cues is necessary for normal empathic and behavioural development. Thus, the authors suggested that CU children with reduced responses to distress cues do not experience the necessary conditioning of negative emotional responses, which influence later deficits in empathic displays and antisocial outcomes.

However, research has revealed flaws in the above models by examining the varied clinical outcomes dependent on the presence or different levels of CU traits (Frick et al., 2014a). While children with elevated levels of CU traits can be distinguished with their distinct temperamental styles or *internal* factors and deficits in showing affective empathy, studies demonstrated that low levels of CU traits are highly related to *external* factors such as dysfunctional parenting practices (Frick & Dantagnan, 2005). Further, those with CP without CU traits were found to be characterised by heightened emotional responses, impulsivity, neuropsychological deficits such as ADHD symptoms as well as external factors, suggesting the unique influences of CU trait severity on developmental pathways to CP. (Frick et al, 2014b).

Behavioural genetic studies examining correlates in heritability also support the distinct etiological basis for CP presented with CU traits. Correlational data from Frick et al. (2014b), which comprehensively reviewed the use of CU traits to identify a severe subgroup of CP in previous research, observed from nine twin studies that genetic effects accounted for 42-68% of variation in CU traits and its stability. In particular, Viding, Blair, Moffit and Plomin (2005) reported a stronger genetic influence on childhood-onset CP for high teacher-reported CU traits (81%) compared to those with normative levels of CU traits (30%), as well as notable effects of shared environment for low-level CU traits.

Further, findings in neurocognitive characteristics of empathy in children with CU traits evidenced reduced amygdala responses to distress cues, fearful expressions compared to those without CU traits have also sparked investigations into neurobiological accounts of CP (Marsh et al., 2008; Viding et al., 2012; Lozier, Cardinale, VanMeter, & Marsh, 2014). However, Moul, Hawes and Dadds' (2018) recent review article highlights the lack of a sufficient, global account for the neurobiological, neurochemical and biobehavioural correlates of empathy deficits in CU children and the etiological basis of CP more broadly. Research has yet to integrate the current findings concerning the implications of the amygdala for empathy and basic cognitive functions and serotonin and oxytocin for emotion recognition on CU traits (Moul et al., 2018).

Collectively, these etiologically-distinct characteristics of CU traits influence and indicate the importance of a focused, comprehensive diagnosis of CU traits and clinical interventions for CU children with CP. Previous studies <https://assignbuster.com/implications-of-identifying-the-callous-unemotional-subpopulation-of-children-with-conduct-problems/>

investigating the CP+CU subpopulation demonstrate the high clinical utility of elevated CU traits as an imperative specifier for continuation of problematic behaviour and serious antisocial outcomes, particularly in the form of CD (Kimonis, Fanti, et al., 2014). Pardini, Stepp, Hipwell, Stouthamer-Loeber and Loeber's (2013) assessment of a community sample of 1862 girls aged 6-8 through in-home and teacher questionnaires found that CU girls with CD progressed to more severe, disruptive behaviours and lower anxiety compared to those with CD alone, and that this result was maintained at 6-year follow-up. They further reported predictions of higher ODD and ADHD symptoms for girls with high CU traits at this follow-up compared to those without CD and CU traits. Despite the study's limitation of poor generalisability to males and internal consistency of measuring CU traits in early childhood, similar findings such as that of Ezpeleta, de la Osa, Granero, Penelo and Domenech (2013), where CU traits at ages 3-4 predicted associations with future externalising behaviour and disruptive behaviour disorders for both boys and girls, corroboratively evidence the usefulness and the importance of assessing CU traits in early childhood to prevent antisocial outcomes.

Such findings of CU traits' utility support the clinical significance of establishing the

Inventory of Callous-Unemotional Traits (ICU) for a furthered multi-method approach of assessment in addition to self, teacher and parent reports, as well as the integration of CU traits as a specifier of CD in the 5th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; Kimonis,

Bagner, et al., 2014; Frick et al., 2014a). Called 'with limited prosocial emotions' (LPE), CU traits affectively inform the prognosis of childhood CP in CD by predicting more persistent and severe antisocial behaviour than for those without the specifier (American Psychiatric Association, 2013).

Notably, as Herpers, Rommelse, Bons, Buitelaar and Scheepers (2012) elaborates in their study of CU traits' diagnostic validity outside CD as a cross-disorders construct, CU traits may be a useful specifier for child DBD in general. Their systematic analysis of existent CU trait literature denoted that the associations between LPE and CP patterns in CD may extend to ODD and ADHD (at probably a lesser extent), as most of their reviewed studies sharing similar predictions involved a heterogenous CP youth population. Thus, identifying the CU subpopulation demonstrates the importance of diagnostic assessments of CP with the LPE specifier.

Distinguishing the CP+CU subpopulation also implicates treatments with more targeted, intensive and tailored approaches that directly address the LPE attributed for poor treatment outcomes and compliance, dependent on its severity (Frick et al., 2014a; Frick & White 2008; Haas et al., 2010).

Previous meta-analytic research (Frick et al., 2014b) has evidenced such implications in a comparative analysis of 20 studies and their treatment outcomes for youth with CP with and without high CU traits, which found that 18 (90%) of these reported poorer outcomes of overall treatments for the high CU trait group. Further demonstrations of such challenges the CU subtype of CP presents to clinical interventions include that of Hawes and Dadds (2005), which revealed that CU traits were associated with greater CP and other predictors of antisocial behaviour at pre-treatment and poor

outcomes at 6-month follow-up. 56 families of boys aged 4-8 years who met the DSM-4 criteria for ODD and CD with LPE were involved in a manualized parent training (PT) intervention to observe the effectiveness of treatment addressing punishment-focused behaviour and temperament. The study found that boys with elevated LPE were less responsive to the traditional time-out-based discipline methods than those with low LPE but showed a large and modest affect for ODD and severe CP respectively for reward-based (including praise, encouragement and affection) treatment.

Limitations of this study included its exclusive reliance on parent-reports for CU trait measurements and small, male-only sample with possible participant factors of ADHD comorbidity. Nonetheless, it is a noteworthy demonstration of how interventions that target CU children's unique risk factors are efficacious over PT, which is an inappropriate treatment as it fails to address their principle deficits despite being the best supported treatment for child CP (Hawes, Price, & Dadds, 2014).

A promising pilot study in Parent-Child Interaction Therapy adapted for CU traits by Kimonis et al. (2018) implemented a comprehensive, evidenced-based treatment that targeted deficits of CU children with CP. Dysfunctional emotional development and lack of parental warmth was addressed by strengthening the parent-child relationship and coaching responsive parenting, while reward-based disciplinary strategies were systematically employed for targeting reward-dominant behaviour and punishment insensitivity. Although the study's conclusions were limited by its small sample size and the consequent lack of reliability and power, it indicated significant improvements in CU traits from pre to posttreatment for more

than 82% of the participants, for which the improvement in parenting and warmth directly influencing the children's LPE were attributed. This finding is also consistent with Dadds, Cauchi, Wimalaweera, Hawes and Brennan's study (2012), which found that increased empathy levels partly accounted for improved CP for children who received emotion recognition training with PT than those who received PT alone. Hence, clinical interventions for the CP+CU subpopulation should be risk factor-oriented, individualised and differentiated from those without LPE.

In conclusion, delineating the CU subpopulation of children with CP enables an investigative attention and focus on CU traits, which accordingly deepen our knowledge of the etiological basis for CP and antisocial behaviour that can stem from the development and pernicious influence of CU traits on the conscious, emotional, cognitive and behavioural domains. Studies demonstrate how this implicates the overbearing importance of comprehensive diagnoses for CP and DBD and differentiated treatment methods for the CU subpopulation from those without CU traits. Ultimately, further research is required to improve the tailoring and efficacy of treatment for the CU subpopulation.

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