

Learning Task #3
Qualitative Research Article Review

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Research article review

Öster, C., Ramklint, M., Meyer, J., & Isaksson, J. (2019). How do adolescents with ADHD perceive and experience stress? An interview study. *Nordic Journal of Psychiatry*, 74(2), 123-130. <https://doi.org/10.1080/08039488.2019.1677771>. Reviewed by Besart Hysniu.

Introduction

The article by Caisa Öster and colleagues Mia Ramklint, Jenny Meyer and Johan Isaksson first appeared in "Psychology in the Schools" on October 15th, 2019. Öster and colleagues used a qualitative approach to explore how adolescents with Attention-Deficit / Hyperactivity Disorder (ADHD) perceive and experience stress. Drawing from previous studies concerning perceived stress in adult populations with ADHD, Öster and colleagues aim to extend these findings to include the under-researched population of adolescents.

ADHD is neurodevelopmental in nature which affects about 5% of the population, and manifests as hyperactivity, inattentiveness, and impulsiveness (Polanczyk et al., 2007). Effects of ADHD on everyday life can range from poor academic performance to unemployment in adulthood, and often co-occurs with bipolar disorder, depression, conduct and oppositional defiant disorders (Erskine et al., 2016). There is a social cost to living with ADHD; children and adolescents with ADHD are less liked by their peers, which creates a barrier to forming and maintaining friendships (Taylor, 2021). Authors resort to the Cognitive Activation Theory of Stress (Ursin & Eriksen, 2004) to explain that stress plays an important role when dealing with novel situations, homeostatic balance, or threats. However, it becomes an impairment when it persists atypically and spans multiple domains of a person's life. When encountering a stress

stimulus, the experience of the stressor, the arousal from it and the reaction to it can vary from person to person. Prolonged stress, however, authors argue, increases the allostatic load, a cumulative effect of heightened stress in the body and the brain, which heightens the risk of illness, including psychiatric disorders (McEwen, 2017). Authors maintain that despite ample research literature showing the effects of adverse life experiences in altering physiological systems related to stress, few studies look at stress's perception and experience in this age group. Among studies looking at community-based adults with ADHD symptoms, primarily of inattention, the Perceived Stress Scale revealed high self-ratings on the perception of stress because of experiencing life as overloaded, unpredictable, and uncontrollable (Bernardi et al., 2011; Combs et al., 2012; Salla et al., 2017; Hirvikoski et al., 2009; Lackschewitz et al., 2008). Of all relevant studies, the authors found only one conducted with children and adolescents with ADHD as participants (Isaksson et al., 2014), where participants reported more feelings of activation and pressure. Öster and colleagues interpret these findings as supporting the connection between sustained activation of stress response and elevated risk of illness and disease, which is why we know very little about how young people with ADHD perceive stress. With an emphasis on developmental changes that occur during childhood and adolescence, authors argue that this age group is especially vulnerable to psychopathology with elevated stress since stress-related problems tend to co-occur with several psychological disorders (Lupien et al., 2009).

Methods

Participants

Participants in this study were adolescents with a clinical diagnosis of ADHD who recently completed a group-based structural skills training program. The 14-session training

completed by participants prior to the study entailed Dialectical Behavioural Training (DBT) that combined elements of psychoeducation, mindfulness, acceptance, and behavioural analysis. The group leaders helped facilitate the recruitment through telephone calls. Written informed consent forms were completed by those who responded to the invitation, which amounted to 20 participants in the end, comprising of 8 boys and 12 girls ranging from 15 to 18 years in age. Validation of the ADHD diagnosis of the participants was completed by clinical psychologists, using Mini International Neuropsychiatric Interview for children and adolescents (MINI Kid; Sheehan et al., 2010) and the Adult ADHD Self-Report Scale for Adolescents (ASRS-A; Sjölander et al., 2015). Authors provided the study plan prior to commencing the study, outlining data collection and analysis which met the criteria for reporting qualitative studies (COREQ; Tong et al., 2007).

Interviews

The interviews took place about two weeks after the structural skills treatment in the same outpatient clinic, except for one participant whose interview was conducted through Skype. The two interviewers were graduate students from different fields (psychology and medicine) trained in communication skills and had engagement with the participants or with the structural skills training. The interview process focused on gathering reports on what it is like to live with ADHD, asking the adolescents how they perceived stress and their group treatment experience. The questions referred to their broad experience with stress and, therefore, unrelated to the treatment. During recorded interviews, lasting 20-60 minutes, examiners explored narratives of the impact of stress at home, school, relationships, and adolescents' overall well-being, with follow-up questions where appropriate. The recordings were then transcribed verbatim in preparation for content analysis.

Analysis

The qualitative analysis was a variation on the Graneheim and Lundman approach (Graneheim & Lundman, 2004) which looks at both the explicit content of a text and the latent or the interpretive aspect of the text that is not explicitly stated. The content analysis included reading the content first so that authors could discuss it concerning the aim. The adolescents' perceptions of stress were identified from the text, and assigned meaning units were coded and grouped into mutually exclusive categories. Next, additional mutually exclusive subcategories were identified that were distinct from each other. Lastly, the content was analyzed for patterns, identifying latent content, and emergent themes were identified.

Results

Emerging themes were identified as 'stress and ADHD intertwined' and 'stressed and distressed'. The four categories of the manifest content were

1. "stress is often present"
2. "triggers of stress"
3. "stress affects daily life", and
4. "stress can be handled and prevented"

The next sections explain the four categories of manifest content, followed by the emerging themes of 'stress and ADHD intertwined' and 'stressed and distressed'.

Manifest Content

Stress is often present.

The category "Stress is often present" groups detailed accounts of stress as a tiresome, negative, extensive, and terrible experience that exhausted adolescents by the end of a school day. Stress and anxiety often co-occurred and were seen to interact in the narratives, often serving synonymously for one another. Greater sensory sensitivity towards noise and light exacerbated the situation for this group, resulting in a decreased tolerance for stress. Adolescents were acutely aware of being perceived as stressed by parents and teachers and reported an all-or-nothing variability in stress levels. Authors interpret this lack of variability as a maladjusted response to stress, further supported by reports of higher stress levels lingering for extended durations, which ended with a period of feeling ill.

Triggers of stress.

Participants were better able to identify anxiety than stress and felt that their stress response was incongruous with what their peers felt; at times, they felt they ought to be stressed but were less stressed than their peers. A lack of predictability was an antecedent of stress for adolescents with ADHD, such that novel situations would trigger racing thoughts around handling novel situations. The school emerged as a predominant source of stress for adolescents with ADHD, especially assignments, deadlines, and group work. Finding oneself unprepared in an unpredictable situation would overwhelm these adolescents and result in disengagement, manifesting as truancy, avoidance of school activities and general lack of participation. Difficulty in meeting one's own and others' expectations would result in feelings of inferiority and depression for this group. The participants reported that losing existing friends was overwhelming for them, a concern because children and adolescents with ADHD already have limited friendships relative to their peers.

Stress affects daily life.

Stress impacted the wellbeing of the participants by way of persistent restlessness, anxiety, sadness, and tiredness, which contributed to difficulties prioritizing and procrastination which added more stress and impacted studying effectively. Negative feelings would often release as irritability or anger, leading to a strain on existing relationships and destruction of material things.

Stress can be handled and prevented.

Participants demonstrated an appropriate understanding of stress, recognizing that some low to moderate stress can improve performance and that stress in general places a higher demand on them. Participants also felt less equipped at handling stress or felt that it was too difficult for them to apply the strategies they knew. These adolescents identified parents, siblings, and teachers as crucial supports in their ability to handle their stress, partly due to these support figures' ability to adjust the demands of the relationship to meet the needs of the adolescent. Facing challenges daily was expressed as a strategy for handling the stress. Preventative strategies were also fresh in the participants' minds, such as preparing and planning, avoiding stressful situations and calming down.

Emerging Themes

Stress and ADHD intertwined.

Although distinguishable and intertwined, the authors note that perceived stress and ADHD were sometimes difficult to disentangle from the symptoms discussed in the content. Participants reported a heightened sensitivity to stress and an inability to manage it; they felt that stress was either disproportionally high or non-existent, with no middle ground that would characterize as moderate stress levels. Authors speculate that stress intolerance may indicate a

lower hormone cortisol level because of a hypoactive hypothalamus-pituitary-adrenal axis, which can explain how a child with ADHD would be ill-equipped to deal with environmental stressors. The authors also spoke to the structural skills training that the participants were engaged in as relevant to this section, as an effort to provide strategies for adolescents towards ameliorating the effects of poor executive functioning. Essential outcomes of similar coaching strategies are the tools that enable the participants to plan ahead and otherwise reduce the likelihood of stressful experiences either by avoiding stressors or through calming techniques.

Stressed and Distressed.

Anxiety and stress often co-occurred in participants' reports in a cross-influencing relationship, where anxiety led to stress and stress was followed by more anxiety, sadness, and feelings of helplessness. The authors raise a key point regarding stress as a potential driver of the anxiety associated with ADHD. The negative expectancy expressed as feelings of helplessness and lack of control, authors argue, underpins the participants' anxiety and depressive symptoms. Emotion regulation issues also emerged in the interview content, in line with ADHD symptoms of emotional over-reactivity, hyperactivity and restlessness, which affect the individual's ability to handle daily stressors, affecting social and interpersonal relationships. The authors did acknowledge that an analysis by gender would have been an important feature that was out of the scope of this study since depression and anxiety are predominant expressions of ADHD in girls.

Research Implications

The authors of this study were interested in how adolescents with ADHD perceive and experience stress and captured such experiences in depth from the responses provided. The four categories of manifest content provide a helpful explanation of various aspects of how this group

experiences and perceives stress. Because adolescence can be a stressful developmental stage in general, ADHD can further exacerbate the experience and lower the vulnerability threshold for these students. The literature review demonstrates that Öster and colleagues bring an evidence-based understanding about the underlying mechanisms of ADHD, which helped guide the study purpose. For example, an article referenced by authors, regarding the neurobiology of stress (McEwen, 2017), explains how adverse life experiences produce lasting effects on the body through epigenetic means, meaning that the expression of genes in response to stress varies depending on the presence and the intensity of such experiences.

Öster and colleagues acknowledge some limitations in their study. To start, the authors were transparent with the participants regarding the purpose of the study, which may have helped with recruitment due to the interest in the topic. Although the number of participants was large for a qualitative study, authors acknowledge that data saturation criteria were not observed during recruitment. Because of the time delay between data collection and analysis, participant checking and obtaining corrections were also omitted in this study. If there is one Achilles heel to this study, however, it must be the timing of the study, set to start immediately following the structural skills treatment; having just finished the 14-session treatment makes it difficult to disentangle the effect that the treatment had on the responses of the participants, despite a presumed greater awareness of their condition and self-reflection. It is highly probable that the responses were a conglomeration of what the participants heard from others during the group sessions mixed with their own perceptions, thus internalizing the many facets of ADHD presentation and reporting more homogeneously than they would have otherwise. Because they were immersed in the experiences of others as they shared during group sessions, this would likely affect both the internal and external validity of the study, making it appear as if there is a

larger common denominator in this sample in terms of manifest content. Authors acknowledge that the disparity in the sex ratio between participants (12 girls and 8 boys) is representative of the ratio of participants that will be assigned to treatment, rather than a reflection of the prevalence in the community, which also impacts the interpretation of the findings. The other issue with this convenient sample is that all participants belong to a group that received treatment beforehand. It would be interesting to know how this group compares qualitatively to adolescents with ADHD who present similarly but lack the social support to guide them to seek treatment. Another minor criticism of the limitation section is that the " Limitations " subheading should have been titled "Strengths and Limitations." This section starts and ends with strengths. The study shortcomings are often followed by a rationale on a strength that attempts to outweigh the shortcoming, which may have been deliberate but somewhat misleading, if not confusing. In closing, adolescent reports of experienced stress through this study help provide additional insight into the nature of ADHD through first-person accounts, information that is of great utility to researchers and other stakeholders such as practitioners, family members, and educators alike. It helps the stakeholders' involvement in the adolescent's life towards a more person-centred approach to treatment and intervention. A practitioner empowered with such insight is better informed in recommending interventions that work. A teacher or parent can learn to identify the common triggers and antecedents better to improve daily engagement with the affected adolescent at home and school. Ultimately, the underlying key point is that the sources and triggers of stress are maladjusted and exaggerated in adolescents with ADHD; a lower threshold of tolerance for external stressors compounds with the internal state, making a person with ADHD even more vulnerable to underperformance and acting-out. Therefore, the ability to

identify the behavioural clues sooner has therapeutic value in determining the timing of the supports that an adolescent with ADHD needs but may not know to ask for.

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