Impact Factors for Children's Self-control

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Abstract: This study delves into the vital psychological attribute of self-control and its profound effects on children, focusing on two pivotal determinants: family environment and educational milieu. Self-control, the capacity to independently govern behaviour, emotions, and decision-making toward long-term objectives, is paramount for personal development and triumph. The family environment, encapsulating facets such as family structure and support, is pivotal in shaping a child's self-control. Factors like socioeconomic adversity and parenting styles(PS) are crucial influencers in moulding self-regulation(SR). Simultaneously, the educational setting, categorized into diverse self-managing aspects, exhibits a discernible impact on overall educational quality. Autonomy support(AS) and structured parenting positively affect children's self-regulation and academic achievements. The study underscores the interdependence between family and educational environments, advocating for targeted interventions and innovative strategies to advance children's self-control. It concludes by proposing avenues for future research to refine further interventions and strategies to foster children's self-control.

Keywords: Self-Control, Children, Family Environment, Educational Environment

1. Introduction

Self-control, a fundamental psychological attribute, regulates behaviour, emotions, and decision-making. Its importance resonates daily, from resisting immediate temptations to managing emotions during challenges. This trait's enduring significance is evident throughout history, reflecting its timeless relevance and contemporary research focus.

In historical and modern contexts, the emphasis on self-control remains consistent. Ancient philosophical teachings stressed mastery over desires, while contemporary psychology delved into cognitive processes. Understanding and nurturing self-control are paramount in today's fast-paced world, marked by abundant distractions and complex decision-making.

This paper explores the historical and current emphasis on self-control, aiming to unravel the intricate dynamics of children's self-control development. Bridging macroscopic historical perspectives with microscopic examinations of contemporary research aims to provide insights for practical interventions, ensuring children acquire essential skills for navigating life's complexities.

2. Introduction of Self-control and Two Factors

Self-control(SC) is a critical psychological ability that refers to individuals' ability to autonomously regulate their behaviours, emotions, or decision-making in the face of impulses or desires to achieve

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long-term goals and values better. Self-control is the ability to resist immediate impulses for future goals. It is vital for personal growth, decision-making, and success in life. It includes resisting temptations like unhealthy food and managing emotions in heated situations. This skill entails delaying gratification, making rational choices, and staying focused despite distractions. It is crucial for time management, overcoming bad habits, and achieving goals in education, career, and relationships. Research has shown that SC is not a fixed. Setting goals, creating self-monitoring systems, and developing positive habits can improve self-control [1].

Since self-control is vital to human lives and can change with age, what factors can affect our teens' self-control? Research has shown that the family environment and the educational environment are two important factors influencing adolescent self-control.

Family environment factors refer to the various influences that individuals experience and are exposed to, including family structure, parent-child relationship, family support, family atmosphere, etc.

Educational and environmental factors refer to the context, conditions, and resources of learning and education that significantly impact a person's academic performance and development.

3. Essential Role of Family Environment in Influencing Children's Self-Control

The experiment that presents that family environment was related to children's SC came from prior experiment which uncovered the complex process by which socio-economic risk is linked to children's early self-control [2]. First, the study recognizes that socio-economic adversity (often manifested as poverty) is closely linked to the economic pressures families face. This stress is usually measured by parents' subjective assessment of their economic capacity and the psychological distress they experience. The study draws on the Family Stress Model, a critical theoretical framework that illuminates the impact of socioeconomic adversity and related stressors on child development. The model emphasizes the role of family stress mechanisms, including parents' experiences of economic stress, in shaping parent-child interactions and subsequent child self-control. The study sought to determine whether indicators of socioeconomic disadvantage independently predicted children's SC, even after controlling for parental perceptions of economic stress.

These factors include parental characteristics such as poor educational attainment, low income, low occupational class, low housing tenure, and younger age at parenthood. These findings expand the understanding of socioeconomic adversity's role in shaping early self-control. The study emphasizes the importance of various socioeconomic factors in independently predicting early SC in a representative sample of children. In conclusion, this paper highlights the multifaceted nature of children's SC development, in which socioeconomic risk factors, parenting characteristics, and children's temperament play different roles. It can be concluded from the study that family environmental factors impact children's self-control.

Grolnick and Ryan's research also discusses the importance of PS and their impact on children's development, particularly in the context of self-regulation and academic success [3]. The research aims to differentiate between different aspects of parenting styles and their effects on kids' self-regulation and academic competence. The study emphasizes the dimension of parental control, ranging from restrictive and controlling behaviours to permissive and democratic approaches. It also emphasizes the distinction between autonomy support and structure as two separate dimensions of parenting. In order to support autonomy, parents should encourage their children to solve problems on their own and make their own decisions. Structure describes precise, dependable standards and regulations for children's behavior. The study suggests that autonomy support is critical for self-regulation, intrinsic motivation, and perceived competence in school.

On the other hand, parental provision of structure is expected to influence children's understanding of control and achievement outcomes. Furthermore, the research explores the role of parental involvement, which reflects the parent's dedication, positive attention, and active participation in the child's life. It is hypothesized that greater parental involvement provides emotional and concrete resources contributing to a child's self-direction, confidence, and academic success. This dimensional approach to parenting styles offers a comprehensive perspective, allowing researchers to detect the effects of AS, structure, and involvement on children's self-regulation and competence in school. It also considers both mothers' and fathers' contributions to children's school adjustment, enhancing the understanding of the joint influence of parental styles.

This study focused on children and parents from a predominantly Caucasian, middle-class population in a northeastern elementary school. The participants are 66 children (36 boys, 30 girls) from third to sixth grades and 114 parents (64 mothers and 50 fathers). The families' socioeconomic status was evaluated using a four-factor index, which considered parental education and occupation. The families represented a range of socioeconomic classes. Parents were interviewed separately about their parenting styles, emphasizing autonomy support, involvement, and structure. Interviewers and observers independently rated parents on these dimensions. The study also used self-report scales to assess children's academic self-regulation, perceptions of control, and perceived competence.

Teacher ratings measured children's school-related behaviours, including acting out, shyness, and learning problems, while teachers also assessed children's academic competence. Achievement was evaluated through standardized tests and classroom grades in math and reading, which were then standardized using grade-specific means and standard deviations.

The study comprehensively analyzed the association between parental styles, children's self-regulation, and academic outcomes. The findings shed light on how different parenting dimensions impact children's SR and school-related competence.

This study found a relationship between different parenting styles and children's SR. Specifically, parents' autonomy support parenting style was significantly and positively related to children's autonomous self-regulation. This means that parenting styles are more supportive of children's self-determination and self-control are in correlation with higher levels of autonomous self-regulation. Mothers' "autonomy-supportive" styles were particularly strongly associated with this association.

In addition, the family parenting style showed positive correlations with multiple child self-regulation correlates. Maternal involvement positively affect children's ability to reach higher grades, standardized grades, and teacher ratings and negatively related to children's perception of unknown control, teacher-rated behavioural problems, and learning problems. This suggests maternal involvement is crucial in shaping children's self-regulation and academic performance.

This study highlights the multifaceted impact of different family parenting styles on children's SR and well-being. Maternal involvement was significant in shaping children's SR and academic performance. These results emphasize the importance of considering aspects of multiple family parenting styles when examining the impact of parenting styles on child development.

In conclusion, this study's results support parents' importance in developing children's school-related SR and competence, primarily through their AS. However, the authors also point out that the results of this study only apply to nuclear families. Therefore, further research can consider the impact of factors such as family structure and ethnicity. Research must also be conducted in different school settings and families to understand more fully the impact of parenting styles on children's school-related adjustment. This study emphasizes the importance of the family environment on children's school-related adjustment, which is one of the most prevalent socialization factors affecting children's school functioning.

Grolnick and Ryan's study investigates the complex processes that link socioeconomic risk to early childhood self-control. First, the study recognizes that socio-economic adversity (often

manifested as poverty) is closely linked to the economic pressures families face. This stress is usually measured by parents' subjective assessment of their economic capacity and the psychological distress they experience. Second, the study draws on the Family Stress Model, a critical theoretical framework that illuminates the impact of socioeconomic adversity and related stressors on child development. The model emphasizes the role of family stress mechanisms, including parents' experiences of economic and emotional stress, in shaping parent-child interactions and subsequent child self-control. Third, the study distinguishes between objective measures of socioeconomic disadvantage and subjective assessments of parental psychological stress. It sought to discern whether indicators of socioeconomic disadvantage independently predicted children's SC, even after accounting for parental perceptions of economic stress. This study delves into the multifaceted relationship between socioeconomic adversity, family stress, and individual differences in children's temperament, providing valuable insights into how socioeconomic risk factors influence children's SR. It also examines the potential interactions between these elements, enhancing our understanding of these complex dynamics.

Many studies prove that the home environment is one of the factors that influence children's self-control. For example, Gottfriedson and Hirsch explored the effects of school and classroom characteristics on developing self-control in kindergarten and first-grade students [4]. Using multilevel modelling, the study revealed significant effects of classroom characteristics on self-control, providing evidence for the role of educational institutions in shaping self-control. Another example is the study by Jessica Taylor Piotrowski et al., which found that older children showed fewer self-regulation problems. In contrast, those from low-income families and male children tended to have more self-regulation problems [5]. These findings have important implications for practitioners and researchers who support children in developing their self-regulation skills.

4. Impact of Educational Environment Factors on Children's SC

Although there are small amount of studies on factors in the school environment is small compared to those in the home environment, many experiments provide strong evidence that the school environment also influences children's self-control.

Research shows an association between school and classroom characteristics and children's SC development [6]. Gottfredson and Hirschi's general theory, which emphasizes the importance of self-control in preventing criminal behaviour, serves as the theoretical framework for this research.

Drawing on the theoretical framework of Gottfriedson and Hirsch, this study incorporates school and teacher socialization practices into a comprehensive model of SC development. By analyzing the data from the NLSY, the study reveals significant impact of school socialization(SS) on SC independent of parental influence. The study also explored differences across parental and neighbourhood settings.

Gottfredson and Hirschi's General Theory of Crime posits that low SC is a fundamental predictor of criminal and deviant behaviours. While this theory has been extensively examined in the context of crime, the study at hand shifts the focus to the exploration of the origins of self-control. The researchers argue for the inclusion of the school context, contending that it plays a pivotal role in shaping SC within individuals.

Elaborating on Gottfredson and Hirschi's position, the study incorporates school and teacher socialization practices into a broader model of self-control development. This theoretical expansion suggests that the school environment and parental influences significantly influence individuals' self-control development. Incorporating school socialization practices represents a nuanced approach to understanding the multifaceted sources of SC.

This study empirically examines the impact of school socialization on self-control. Notably, the findings show that the effects of school socialization persist even after controlling for parental

socialization. This emphasizes the unique role of the school environment in shaping self-control, distinct from the influence of parents.

Furthermore, the study uncovers variations in the impact of school socialization across parenting and neighbourhood contexts. This suggests that the impact of the school environment on SC is not uniform but is influenced by external factors. Understanding these variations adds depth to understanding how environmental factors influence children's self-control.

The theoretical implications of this research are profound in advancing people's understanding of SC development. The study highlights the need to broaden the scope beyond familial influences by incorporating school socialization practices into the theoretical framework. It underscores that schools, as crucial social institutions, contribute significantly to individuals' intricate process of self-control development.

The study challenges the traditional emphasis on parental socialization as the primary determinant of SC, revealing that schools play an independent and influential role. This has implications for theories and interventions to address and cultivate self-control in children and adolescents. It prompts a reconsideration of the multifaceted nature of influences that contribute to developing this critical aspect of behaviour.

From a policy perspective, the findings advocate for a holistic approach to education that recognizes the influential role of schools in shaping self-control. Policymakers can use this research to inform strategies to enhance educational environments to foster the development of SC in students.

In addition, policymakers can tailor interventions to specific needs by understanding the effects of SS in different contexts. Recognizing context-specific influences on self-control can inform the design of targeted educational policies that address the unique challenges and opportunities in diverse parenting and neighbourhood contexts.

In conclusion, the study's exploration of the impact of school socialization on SC provides valuable insights into the multifaceted sources of this crucial aspect of human behaviour. By expanding on Gottfredson and Hirschi's General Theory of Crime, the research underscores the independent contribution of the school environment to SC development. The empirical findings, emphasizing the persistence of school effects even after controlling for parental influence, offer a nuanced perspective on the intricate interplay of environmental factors.

The theoretical implications of this study challenge existing paradigms, advocating for a broader understanding of self-control development that includes the significant role played by schools. From a policy standpoint, recognizing the influence of the school environment on SC opens avenues for targeted interventions that can positively impact educational outcomes and contribute to the holistic development of individuals. Ultimately, this research enriches our comprehension of the complex dynamics shaping self-control, providing a foundation for informed educational policies and practices.

While self-management(SM) and self-control are not entirely synonymous, there is some overlap between them. In many cases, achieving effective self-management may require a degree of self-control. Research has shown that the school environment can influence students' self-control. An organized school environment encourages self-discipline and provides positive incentives that help develop students' self-control. The norms and supports of the school environment can positively impact students' behaviour and academic performance, thus indirectly affecting their level of self-control.

Cheng and Cheung's study emphasized the relationship between school management and the quality of education. Different types of school management environments may significantly affect the performance of schools, groups and individual teachers. This suggests that a sound school management system may contribute to the quality of education, while a poorer management environment may lead to differentiated performance. This differentiated performance may be related

to self-management and self-control, which further emphasizes the importance of the school environment for student development [7].

The study categorized school environments into four distinct types: bottom-level self-management, top-level self-management, middle-level self-management, and low-level self-management. Subsequent analyses revealed significant differences in school, group and individual teacher performance within these categories, providing valuable practice and policy development insights.

The central focus of the study was to understand how different levels of self-management within schools contribute to variations in educational quality. Classifying schools into the four identified types provides a nuanced framework for assessing the efficacy of school-based management practices. The Bottom-level Self-Managing schools, characterized by lower levels of self-management, stand in contrast to the Top-level Self-Managing schools, which demonstrate a higher degree of SM. The moderate SM and poor SM categories represent intermediate levels of self-management effectiveness.

The significance of this classification lies in its implications for the performance of schools, groups, and individual teachers. The study found substantial differences in the educational outcomes and quality indicators among these four types. Schools categorized as top-level Self-management exhibited superior performance across various metrics, while bottom-level Self-management and poor Self-management schools lagged. The disparities observed at different levels within the educational hierarchy underscore the profound impact of school-based management practices on overall educational quality.

These findings offer practical implications for educators, administrators, and policymakers. For practitioners at the school level, the study underscores the importance of implementing effective self-management practices to enhance educational quality. Schools aspiring to improve their performance may find valuable lessons in the strategies employed by top-level self-managing institutions, which demonstrate superior outcomes.

At the group level, the study's results reflect the collaborative dynamics within schools. It highlights that the effectiveness of self-management practices is reflected in overall school performance and influences the outcomes of specific groups within the institution. This insight can guide educators in fostering collaboration and shared responsibility among various school units, ultimately contributing to improved educational quality.

Individual teachers, as integral components of the education system, are also impacted by the varying degrees of school-based management. The study reveals that top-level self-managed school teachers perform better than their counterparts in less self-managed environments. Enhancing self-management practices can contribute to individual teachers' professional development and effectiveness.

The implications extend to policy formulation in the broader educational landscape. Policymakers can draw from the study's insights to design and implement policies that incentivize and support effective self-management practices within schools. The findings advocate for a holistic approach to educational reforms, emphasizing the pivotal role of school-based management in shaping educational quality.

In conclusion, the empirical study in Hong Kong sheds light on the intricate relationship between school-based management, classified into bottom-level SM, top-level SM, moderate SM, and poor SM schools, and educational quality. The observed variations in the performances of schools, groups, and individual teachers across these categories provide practical insights for educators, administrators, and policymakers. As educational reforms evolve, this research underscores the imperative of prioritizing effective school-based management practices to foster a conducive environment for enhanced educational quality. By understanding and implementing the lessons from this study, stakeholders in the education sector can contribute to the ongoing efforts to provide high-quality education and nurture students' intellectual growth.

Kevin M. Beaver's research explored whether the features of schools and classrooms within schools significantly impact the development of SC by conducting a series of multilevel modelling studies [8]. The experiment's results indicated that classroom features affect the development of self-control by conducting a longitudinal research on kindergarten and first-grade students.

In addition to Kevin M. Beaver's study, Jian-Bin Li et al. also suggested the importance of the school environment on children's SC [9]. In their research, the school environment was considered to significantly impact individual differences in self-control, as school discipline was seen as an essential factor in effectively enhancing students' SC. The study examined the relationship between three contents of school discipline(structure, support, and teacher-student relationships) and SC from preschool through high school. Results indicated stronger associations between school discipline and social-emotional self-control. Interestingly, Byongook Moon's study found that a hostile school environment was significantly associated with psychological bullying but did not have the same impact on physical bullying [10]. This suggests that aspects of the school environment play a role in shaping certain types of bullying behaviours, emphasizing the nuanced relationship between school factors and bullying. In turn, the school environment may impact students' self-control development. A positive, supportive school environment may help to develop students' self-control and reduce the likelihood that they will engage in or become victims of bullying.

These findings emphasize the significant role of the school environment in influencing children's self-control facets.

5. Discussion

5.1. Summaries

The articles prove that family and educational environments influence children's self-control. In conclusion, each contributes uniquely to the multifaceted development of self-regulation skills. The research underscores that family dynamics, influenced by socioeconomic factors and nuanced parenting styles, significantly shape a child's journey toward adequate self-control. Parental warmth, autonomy support, and structured guidance play pivotal roles in fostering intrinsic motivation, cognitive competence, and overall academic success.

Simultaneously, the educational environment is a powerful determinant in children's self-control development. With their diverse classroom characteristics and disciplinary practices, schools contribute independently to shaping self-regulation skills. Kevin M. Beaver's studies highlight the impact of classroom characteristics, while Jian-Bin Li's research underscores the crucial role of school discipline from preschool through high school.

The integrated approach recognizes the symbiotic relationship between family and educational environments. Effective interventions must consider the complexities arising from socioeconomic factors, parenting styles, and diverse classroom dynamics. As we navigate these complexities, we gain insights into challenges and opportunities that can mould resilient, capable individuals prepared to face the ever-changing circumstances of the modern world.

5.2. Future Directions

Future research can focus on how to improve children's self-control. Future research can explore innovative strategies to enhance children's self-control, exploring interventions within family and educational contexts. Investigating the efficacy of targeted parenting programs, school-based initiatives, and technological interventions may offer valuable insights. Understanding the nuanced interplay of environmental factors and implementing evidence-based interventions can contribute to developing practical and effective approaches for fostering robust self-control in children, ensuring they are equipped with essential skills for lifelong success.

6. Conclusion

In conclusion, this paper delves into the essential psychological concept of self-control, emphasizing its significance for personal growth, decision-making, and overall success in life. The ability to resist immediate impulses for the sake of future goals is at the core of self-control, which affects various aspects of time management, habit formation, and goal attainment. It is worth noting that SC is not a fixed trait but can be gradually developed through conscious effort and practice.

The combined results of various studies suggest that the family and the educational environment considerably impact children's self-control. Family-focused studies have highlighted the influence of socioeconomic factors and parenting styles, emphasizing the role of adversity and specific parental characteristics in shaping children's self-control. In addition, studies focusing on educational contexts have illuminated the multifaceted impact of school socialization practices on self-control. The broadened perspective challenges conventional wisdom and suggests that schools play an independent and critical role in developing self-control.

In conclusion, this paper emphasizes the multifaceted nature of self-control development in which the family and educational environment play different roles. This paper provides educators, administrators, policymakers, and parents with practical implications for enhancing self-control in children and adolescents. By recognizing the intricate interplay between environmental factors and implementing evidence-based interventions, those involved can contribute to the overall development of individuals and ensure that they have the self-control skills necessary for lifelong success. This paper proposes future research directions to explore innovative strategies for fostering self-control in home and educational settings to develop practical and effective approaches to benefit children's lifelong success. Future research efforts should explore the dynamics of family environments and educational settings in different contexts to ensure a comprehensive understanding of the multifaceted nature of SC development. In conclusion, recognizing and addressing the combined influences of family and educational environments is critical to developing effective interventions to foster children's self-control, laying the foundation for their long-term success.

References

- [1] Moffitt, T. E., Arseneault, L., Belsky, D., Dickson, N., Hancox, R. J., Harrington, H., Houts, R., Poulton, R., Roberts, B. W., Ross, S., Sears, M. R., Thomson, W. M., & Caspi, A. (2011). A gradient of childhood self-control predicts health, wealth, and public safety. Proceedings of the National Academy of Sciences, 108(7), 2693–2698.
- [2] Cheng, Y. C., & Cheung, W. M. (2004). Four types of school environment: Multilevel Self-management and Educational Quality. Educational Research and Evaluation, 10(1), 71–100.
- [3] Turner, M. G., Piquero, A. R., & Pratt, T. C. (2005). The school context as a source of self-control. Journal of Criminal Justice, 33(4), 327–339. https://doi.org/10.1016/j.jcrimjus.2005.04.003Psychology, 43(5), 1187–1201.
- [4] Grolnick, W. S., & Ryan, R. M. (1989). Parent styles associated with children's self-regulation and competence in school. Journal of Educational Psychology, 81(2), 143–154.
- [5] Piotrowski, J. T., Lapierre, M. A., & Linebarger, D. L. (2012). Investigating correlates of self-regulation in early childhood with a representative sample of English-speaking American families. Journal of Child and Family Studies, 22(3), 423–436.
- [6] Beaver, K. M., Wright, J. P., & Maume, M. O. (2008). The effect of school classroom characteristics on low self-control: A multilevel analysis. Journal of Criminal Justice, 36(2), 174–181.
- [7] Ng-Knight, T., & Schoon, I. (2016). Disentangling the influence of socioeconomic risks on children's early self-control. Journal of Personality, 85(6), 793–806.
- [8] Eiden, R. D., Edwards, E. P., & Leonard, K. E. (2007). A conceptual model for the development of externalizing behavior problems among kindergarten children of alcoholic families: Role of parenting and children's self-regulation. Developmental
- [9] Li, J. B., Bi, S.-S., Willems, Y., & Finkenauer, C. (2019). The Association between School Discipline and Self-Control from Preschoolers to Middle School Students: A Three-Level Meta-Analysis.
- [10] Moon, B., & Alarid, L. F. (2014). School bullying, low self-control, and opportunity. Journal of Interpersonal Violence, 30(5), 839–856.