

CLEARINGHOUSE FOR MILITARY FAMILY READINESS

Parents' Educational Levels Influence on Child Educational Outcomes: Rapid Literature Review

Clearinghouse Technical Assistance Team

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Executive Summary

This rapid literature review was conducted in response to a request from the National Military Family Association. These findings address research related to how parents' educational levels influence their children's educational outcomes.

Child behavior is shaped by observation and direct learning experiences (Bandura as cited in Dubow, Boxer, & Huesmann, 2009). When parents model achievement-oriented behavior (e.g. obtaining advanced degrees, reading, continuing education) and provide opportunities for their children to engage in achievement-oriented experiences (e.g. library trips, museums, after-school programs), those children develop the belief that achievement-oriented behavior is valued and expected (Dubow et al., 2009).

Since children learn, in part, by observation, one of the key components to a child's success is parental time investment (Kalil, Ryan, & Corey, 2012). Highly educated parents spend more time with their children (Guryan, Hurst, & Kearney, 2008) and spend that time actively developing their children's talents and skills (Lareau, 2002); whereas, less educated parents spend less time with their children (Guryan et al., 2008) and tend to let their children's talents and skills develop with little or no guidance or stimulus (Lareau, 2002). Additionally, high-income and highly educated parents are more likely to be involved in their child's education (Cheadle & Amato, 2011), which is a key factor in adolescents' educational successes (Cabrera, Peralta, & Kurban, 2018).

This report provides the following elements:

- brief descriptions of relevant behavior and child development theories;
- a synthesis of the literature; and
- brief descriptions of studies that demonstrate how parents' educational levels influence child educational outcomes at various points in time.

Please note that this rapid literature review provides a preliminary examination of the research on outcomes related to parental education; however, it is not intended to serve as a comprehensive review of the literature.

Introduction

The Technical Assistance (TA) team at the Clearinghouse for Military Family Readiness at Penn State (Clearinghouse) conducted a brief, rapid literature review on the topic of how parents' educational levels influence child educational outcomes.

Research that examines educational outcomes was identified by searching peer-reviewed journal articles, and an emphasis was placed on research published between 2009 and 2019. Search queries included various combinations of the following terms: *parent(al) education (level)*, *parent(al) expectations*, *parent(al) degree*, *military*

spouse education, (military) child education, child education outcomes, child education attainment, and higher education.

Behavior and Child Development Theories

Numerous behavior and child development theories exist that can help explain how parents' educational levels influence child educational outcomes. This rapid literature review identified the social learning theory, social cognitive ecological theory, development theory, and sociological theory as the most prevalent models cited in the literature. Brief descriptions of each theory are provided below.

- **Social learning theory:** behavior is learned through observations and direct learning (Bandura as cited in Dubow et al., 2009).
- **Social cognitive ecological theory:** behavior is an accumulation of intrapersonal characteristics (e.g., IQ, aggression) and environmental factors (e.g., parent education, school, family interactions). These factors together shape cognitive styles (e.g., achievement-oriented, pessimistic) in adolescence, which predict adult outcomes (Dubow et al., 2009).
- **Development theory:** children need different types of parent investments during different developmental periods for optimal outcomes. Parent time investments include basic care, play, teaching, and management (Kalil et al., 2012).
- **Sociological theory:** parents learn about social mobility and standards of success through education. This acquired knowledge, in turn, shapes their interactions and behaviors with their children (Kalil et al., 2012).

Parents' Educational Levels Influence on Child Educational Outcomes

Background

Parents' educational levels positively influence their children's immediate educational outcomes and educational and vocational achievements into middle adulthood (Dubow et al., 2009).

Children learn by observing those around them and by direct experiences. Their behaviors are then shaped by these interactions (Bandura as cited in Dubow et al., 2009). Parental time investment in a young child is one of the key predictors of a child's success as an adult (Kalil et al., 2012). College-educated mothers spend more time providing child care and age-appropriate activities with their children than mothers who have a high school education (Kalil et al., 2012). Generally, highly educated parents (i.e. parents with more than 4 years of college experience) spend more time

with their children than parents who have less educational experience (Guryan et al., 2008).

Since highly educated parents tend to view time with children as an investment opportunity to build human capital (Guryan et al., 2008), they spend that time actively developing their children's talents and skills; whereas, less educated parents tend to let their children's talents and skills develop with little or no guidance or stimulus (Lareau, 2002). Additionally, high-income and highly educated parents are more likely to be involved in their children's education, which is a key factor in adolescents' educational successes (Cabrera et al., 2018).

Parent-child interactions lead to the development of beliefs or *expectations for success* that guide and maintain behavior over time (Frome & Eccles, 1998). When parents model achievement-oriented behavior (e.g. obtaining advanced degrees, reading, continuing education) and provide opportunities for their children to engage in achievement-oriented experiences (e.g. library trips, museums, after-school programs), those children develop the belief that achievement-oriented behavior is valued and expected (Dubow et al., 2009). Such successes might include graduating from high school, exploring higher learning, and seeking out prestigious job opportunities.

Parents with more years of education have high expectations for success for their children, actively encourage their children to develop their own high expectations for success (Davis-Kean, 2005), and are better at aligning expectations with their children's abilities than low-income or less educated parents (Alexander, Entwisle, & Bedinger, 1994). Parents' abilities to set realistic expectations help them tailor the home environment to meet their children's needs, which can lead to higher grades and the pursuit of more education (Davis-Kean, 2005).

Early to Middle Childhood

Kalil et al. (2012) utilized data from the 2003 - 2007 American Time Use Surveys (ATUS) to determine if maternal education had any effect on the amount and type of time mothers spend with their children across age groups. Data were reviewed from over 6,500 mothers who had a child less than 13 years old living in the household.

The study revealed an *education gradient* in the mother's time spent providing child care (i.e., college-educated mothers spent more time in all child care than high school educated mothers), and a *development gradient* also emerged. Highly educated mothers changed their interactions with their child to promote optimal development. Basic care and play were higher when the child was 0 to 2 years old; teaching was higher when the child was 3 to 5 years old; management was highest when the child was 6 to 13 years old. These periods coincide with development theory's timeline for optimal child development (Kalil et al., 2012).

The *development gradient* may arise either directly (i.e., mothers learn about child development in school and act on that knowledge when raising their child) or indirectly (i.e., highly educated mothers set high goals for themselves and their child). The results suggest highly educated parents cultivate children differently than parents who are less educated, and the way highly educated parents raise their children could have long-term effects on the children's educational and vocational achievement (Kalil et al., 2012).

Middle Childhood

Davis-Kean (2005), utilized data from the 1997 Child Development Supplement of the Panel Study of Income Dynamics (PSID-CDS) to determine how socioeconomic status (SES), as measured through parents' educational and income levels, influence children's academic achievement through parental beliefs and behaviors. The PSID-CDS is a nationally representative sample of 8,000 families surveyed since 1968. Cross-sectional data from 868 8- to 12-year-olds, separated by race (European American and African American), were analyzed in this study.

The study found that, among 8- to 12-year-olds, children's academic achievements were related to parents' educational levels via parents' educational expectations (i.e., expectations for success) and behaviors (i.e., reading and emotional support). Parents' educational levels and behaviors were indirectly linked through expectations for success for their children. Importantly, the study found differences in how parents' expectations for success are linked to children's academic achievement by race. For European Americans, parents' educational levels and expectations for success for their child had indirect and direct effects on the child's academic achievement. However, for African Americans, only an indirect link between expectations for success and the child's academic achievement was found (Davis-Kean, 2005).

Previous studies show little differences in how parents' educational levels influence children's academic achievement with regard to race. Davis-Kean suggests examining European American families' home behaviors to determine if they influence how parents' educational levels affect children's academic achievement.

Adolescence to Middle Adulthood

Dubow et al. (2009), utilized data from the Columbia County Longitudinal Study (CCLS) in New York State to determine if a parent's educational level when his or her child was 8 years old had any long-term effects on the child's education level or occupation in middle adulthood. The CCLS began in 1960, and all third-grade students in Columbia County participated. Four phases of data were collected. The data discussed in this report are from phase one (8 years old), phase two (19 years old), and phase four (48 years old).

The study found that parents' educational levels when the child was 8 years old predicted the child's educational and occupational success at age 48. The more educated the parent was when the child was 8 years old, the higher educational aspirations and attainment the child had at age 19. Higher educational aspirations and attainment at age 19 led to higher levels of education in adulthood.

The positive effects of parents' educational levels on child educational outcomes in middle adulthood are independent of other SES and family process variables (i.e., negative family interactions), child IQ, and child aggressiveness (Dubow et al., 2009).

Military-connected Families

Cabrera et al. (2018) utilized data from the National Center for Education Statistics Educational Longitudinal Study of 2002 (ELS:02) to determine if military and civilian children had similar levels of parental involvement and milestone attainment as related to college readiness. Data were collected from approximately 15,000 civilian and 230 military individuals in 2002 and in 2004. Seventy-seven percent of the military children's parents had at least "some college," and 67% had a household income below \$75,000.

The study found no differences in academic ability or parental support and encouragement among tenth- to twelfth- grade students with military and civilian parents. This held true even in times of parental deployment. Military and civilian children also achieved academic milestones of readiness for college at similar times. Parental involvement in school activities for military families did not change based on SES. While this finding is in contrast with most of the literature, the authors note important limitations that may have impacted results: (1) the large difference in sample size between civilian (15,000) and military (230) children and (2) SES was measured via household income and parents' educational levels, which may not be an accurate predictor of SES in the military.

Conclusion

The majority of literature show parents' educational levels strongly influence educational and economic opportunities for their children (Benner, Boyle, & Sadler, 2016; Dubow et al., 2009; Kalil et al., 2012). College-educated parents spend more time with their children, model achievement-oriented behavior, provide opportunities for their children to engage in achievement-oriented experiences, engage in age-appropriate activities, and cultivate their children's talents. These behaviors, generally, lead to a child's educational success.

Higher levels of education are linked to overall better quality of life, including less behavioral and physical health problems, lower unemployment rates, and lower rates of incarceration (Institute of Medicine and National Research Council, 2014). College-

educated mothers are almost twice as likely to be employed than mothers with less than a high school degree (79% versus 42%, respectively) (Guryan et al., 2008). In addition, Davis-Kean (2005) suggests that increasing parents' prospects of gaining more education would positively impact the home environment and youth development more than a temporary increase in income. While there are other intervening factors, increasing young parents' educational opportunities will have long-lasting positive effects on their children's educational and life-long outcomes.

Additional Assistance

The TA specialists at the Clearinghouse are happy to assist you. We provide support to professionals as they examine and make informed decisions about which programs fit specific situations and are worth the investment. Whether it is connecting you with the resources and tools to conduct a needs assessment in your community, suggesting the best evidence-based program or practice for your situation, or developing an evaluation plan, our team of experts is a call or email away.

Please visit our website at www.militaryfamilies.psu.edu or call 1-877-382-9185 to speak with a TA specialist.

Suggested Citation

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References

- Alexander, K. L., Entwisle, D. R., & Bedinger, S. D. (1994). When expectations work: Race and socioeconomic differences in school performance. *Social Psychology Quarterly*, 57(4), 283-299. <http://www.jstor.org/stable/2787156>
- Benner, A. D., Boyle, A. E., & Sadler, S. (2016). Parental involvement and adolescents' educational success: The roles of prior achievement and socioeconomic status. *Journal of Youth and Adolescence*, 45(6), 1053-1064. <https://doi.org/10.1007/s10964-016-0431-4>
- Cabrera, A. F., Peralta, A. M., & Kurban, E. R. (2018). The invisible 1%: A comparison of attaining stepping stones toward college between military and civilian children. *Journal of Higher Education*, 89(2), 208-235. <https://doi.org/10.1080/00221546.2017.1368816>
- Cheadle, J. E., & Amato, P. R. (2011). A quantitative assessment of Lareau's qualitative conclusions about class, race, and parenting. *Journal of Family Issues*, 32(5), 679-706. <https://doi.org/10.1177/0192513X10386305>
- Davis-Kean, P. E. (2005). The influence of parent education and family income on child achievement: The indirect role of parental expectations and the home environment. *Journal of Family Psychology*, 19(2), 294-304. <https://doi.org/10.1037/0893-3200.19.2.294>
- Dubow, E. F., Boxer, P., & Huesmann, L. R. (2009). Long-term effects of parents' education on children's educational and occupational success. *Merrill-Palmer Quarterly*, 55(3), 224-249. <https://doi.org/10.1353/mpq.0.0030>
- Frome, P. M., & Eccles, J. S. (1998). Parents' influence on children's achievement-related perceptions. *Journal of Personality and Social Psychology*, 74(2), 435-452. <https://doi.org/10.1037/0022-3514.74.2.435>
- Guryan, J., Hurst, E., & Kearney, M. (2008). Parental education and parental time with children. *Journal of Economic Perspectives*, 22(3), 23-46. <https://doi.org/10.1257/jep.22.3.23>
- Institute of Medicine and National Research Council. (2014). *Report Brief: Investing in the health and well-being of young adults*. Washington, DC: The National Academies Press. <https://www.nap.edu/resource/18869/YAreportbrief.pdf>
- Kalil, A., Ryan, R., & Corey, M. (2012). Diverging destinies: Maternal education and the developmental gradient in time with children. *Demography*, 49(4), 1361-1383. <https://doi.org/10.1007/s13524-012-0129-5>
- Lareau, A. (2002). *Invisible inequality: Social class and childrearing in Black families*

and White families. *American Sociological Review*, 67(5), 747-776.