Impact of Maternal Employment on Adolescent Personality Traits and Problem Solving Appraisal

MEHREEN¹, SAIMA ARZEEN², SIDRA BATOOL³, MUHAMMAD SAJJAD SHAHID⁴, SANA NAUMAN⁵

^{1,2,3}Department of Psychology, University of Peshawar, Peshawar.

⁴Lahore Garrison University, Lahore.

⁵Fazia College of Education for Women, Cantt Lahore.

Corresponding author: Saima Arzeen, Email: saimaarzeenmehar@uop.edu.pk

ABSTRACT

Purpose This study investigates the impact of maternal employment on the character and problem-solving abilities of their children. As the number of women entering the workforce continues to rise, researchers have debated whether maternal employment is beneficial or detrimental to children. The quality of life for adolescents depends on their relationship with their mothers, and this relationship is a significant determinant of their wellbeing.

Method: To explore this relationship, adolescents of employed and non-employed mothers were randomly selected from schools while controlling for variables such as joint family system, religion, gender, and age. The Dimensional Personality Inventory (DPI) by Mahesh Bhargava and Problem-Solving Appraisal (PSI) were used to collect data.

Findings: The results show a significant difference between the adolescents of employed and non-employed mothers. The study found that the attachment between literate employed mothers and their daughters is deteriorating, but this attachment has less impact on boys than on girls.

Practical Implication: Based on the findings, the paper provides suggestions for future research.

Conclusion The research indicates notable dissimilarities between the personality traits and problem-solving appraisal of adolescents of working and non-working mothers. According to the findings, working mothers exhibit more efficiency and competence in managing interpersonal relationships, whereas non-working mothers demonstrate greater responsibility and better judgment skills, as well as being more capable of inspiring individuals to take action. Furthermore, there are significant variations in self-development characteristics, including self-awareness, self-efficacy, confidence in problem-solving, and integrity.

Keywords: Self-control, Dimension, Attachment, Adolescents, Working and Non-working Mothers

INTRODUCTION

Adolescence is a critical period of development characterized by a range of physical, cognitive, and emotional changes. During this period, adolescents are required to deal with various life challenges that demand effective problem-solving skills. Mothers play a crucial role in the development of personality traits and problem-solving appraisal of adolescents (1). Physically, adolescence is characterized by growth spurts, with individuals experiencing substantial increases in height, weight, and muscle mass. Sexual maturation, including the onset of puberty, is another significant aspect of this stage. Hormonal changes, such as increased production of sex hormones like estrogen and testosterone, contribute to the development of secondary sexual characteristics such as breast development in females and facial hair growth in males (2). Cognitively, adolescence is marked by advancements in abstract thinking, reasoning abilities, and problem-solving skills. The prefrontal cortex, responsible for executive functions like decision-making, impulse control, and planning, undergoes significant development during this period (3). As a result, adolescents become more capable of thinking critically, considering multiple perspectives, and making complex decisions. Emotionally, adolescents experience heightened emotional intensity and increased self-awareness (4) They often engage in exploration of their identity, forming their sense of self and values. Peer relationships and social interactions become significant, as adolescents seek autonomy and independence from their parents. This period also involves emotional ups and downs, as individuals navigate the challenges of identity formation and developing a sense of belonging.

According to (5) a secure attachment fosters the development of a child's personality traits and problem-solving appraisal. Maternal warmth and support are positively associated with children's emotional and social competence, while maternal negativity and control are associated with negative outcomes (6). Maternal support, which involves providing guidance and responsiveness, is also vital for children's social competence. When mothers actively listen to their children, engage in constructive communication, and provide guidance in social situations, children learn essential social skills such as empathy,

perspective-taking, and conflict resolution. Maternal support helps children develop positive interpersonal relationships, exhibit prosaically behaviors, and effectively navigate social challenges (6).

Furthermore, maternal warmth and support contribute to the development of children's social competence by fostering secure attachments and promoting healthy parent-child relationships. A secure attachment provides a secure base from which children can explore the world, form secure relationships with others, and develop a positive sense of self (7). Securely attached children are more likely to exhibit social competence, including better social skills, cooperation, and empathy. Previous researches also confirmed the impact of maternal parenting styles, behaviors, and attitudes on the psychological well-being and cognitive development of adolescents .(8) Moreover, several researches also suggested that mother employment status is one of the main factors responsible for the development of adolescents' personality and problem - solving appraisal. However, there is still a need to explore the relationship between maternal employment status, personality traits, and problem-solving skills in adolescents of working and non-working women in rural and urban areas. By exploring these hypotheses, the study seeks to contribute to our understanding of how maternal employment status and specific personality traits collectively influence adolescents' problemsolving appraisal. The findings will provide valuable insights into the complex dynamics between maternal employment, personality traits, and problem-solving abilities in adolescents, potentially informing interventions and strategies to support optimal problemsolving development during this critical period of adolescent growth and development.

METHODOLOGY

Hypotheses

- 1 There will be a positive correlation between the problemsolving appraisals and personality dimensions of working and nonworking mothers.
- 2 There will be a positive correlation within literacy, PSI, and DPI.

- 3 There will be positive correlation between PSI, DPI, and urban schools will be strong.
- 4 Adolescents of non-working mothers will perform better on personality dimensions and problem-solving appraisals than adolescents of working mothers.

Sample: A correlational design was employed in the study and the researchers used purposive sampling to collect data from 370 adolescents from urban and rural schools in Peshawar. The sample was divided into two groups: 185 adolescent from working mothers and 185 adolescents from non-working mothers. The data was collected from grades 6 to 12. The sample size was determined using Krejcie and Morgan's table (1970). The study included adolescents between the ages of 12 and 18 who came from nuclear families and attended classes from 6th to 12th grade. Moreover, Criteria for exclusion were as follows:

- Adolescents with single parents (divorced or widowed) were not included.
- Those who were receiving psychiatric treatment or had physical disabilities were excluded.
- Adolescents living in joint families were excluded because they had access to kinship care from grandparents and other extended family members.

Instruments: The study used two instruments: the Demographic Information Sheet and the Dimensional Personality Inventory (DPI) and the Problem Solving Inventory (PSI) Form B.

The Demographic Information Sheet was used to collect basic demographic information such as age, gender, school, college, parents' qualifications and occupations, nuclear family, and the presence/absence of medical or psychiatric disease.

The Dimensional Personality Inventory is a standardized tool created by Mahesh Bhargava. It consists of 60 items and assesses six dimensions/traits, which are Activity vs Passivity, Enthusiastic vs Non-Enthusiastic, Assertive vs Submissive, Trusting vs Suspicious, Non-Depressive vs Depressive, and Emotional stability vs Emotional instability. The reliability of each dimension was assessed and coefficients of correlation were found to be as follows: Activity and Passivity 0.74, Enthusiastic and Non-Enthusiastic 0.69, Assertive and Submissive 0.79, Trusting and Suspicious 0.82, Non-Depressive and Depressive 0.66, and Emotional Stability and Emotional Instability 0.84.

The Problem-Solving Inventory (PSI) Form B (9) is a 35-item tool that utilizes a six-point Likert scale to evaluate an individual's perception of their problem-solving abilities and style in everyday situations. The Likert scale ranges from strongly agree (1) to strongly disagree (6). The PSI has shown to have good reliability, with internally consistent coefficient alphas ranging from .72 to .90 and test-retest coefficient alphas ranging from .83 to .89 over a 2-week period. The scale includes three sub scales or factors, namely, Problem-Solving Confidence, Approach-Avoidance Style, and Personal Control.

Procedure: The heads of the relevant urban schools in Peshawar were approached and the study's nature and objectives were explained to the students. Participants who met the inclusion criteria and showed willingness to engage were then established rapport with. Subsequently, the questionnaires were handed out to them. A demographic sheet was used to collect basic information such as name, age, department, and any mental history. The students were informed that they could ask questions or seek help while filling out the questionnaire. At the end of the data collection, the respondents and department heads were appreciated for their cooperation and involvement.

RESULTS

With the rise of women's employment and the changing dynamics of the family structure, there has been a growing interest in investigating the impact of maternal employment on children's development. While some researchers argue that maternal employment may have a negative effect on children, others suggest that it may have a positive impact on their development. This study aimed to shed light on this debate by exploring the

relationship between maternal employment and the character and problem-solving abilities of adolescents.

The study focused on adolescents because this is a crucial period of development when individuals are forming their identities, developing their social skills, and making critical decisions about their future. Adolescents' interactions with their mothers play a crucial role in shaping their personality traits and problem-solving appraisal, as mothers are typically the primary caregivers during this period. The quality of the mother-adolescent relationship is a key determinant of adolescents' wellbeing, and it is influenced by various factors, including maternal employment.

To investigate the impact of maternal employment on adolescents' character and problem-solving abilities, the study randomly selected adolescents of employed and non-employed mothers from schools, controlling for variables such as joint family system, religion, gender, and age. The study used the Dimensional Personality Inventory (DPI) by Mahesh Bhargava and Problem Solving Appraisal (PSI) to collect data on the adolescents' personality traits and problem-solving abilities.

Figure 1 displays a comparison of the Dimensional Personality Inventory (DPI) and Problem Solving Appraisal (PSI) scores between literate and illiterate individuals. The figure shows that the mean scores for both the DPI and PSI were higher for literate individuals than for illiterate individuals. This suggests that individuals who are literate tend to have better-developed personality traits and problem-solving abilities than those who are illiterate. The difference between the mean scores of literate and illiterate individuals is statistically significant, highlighting the importance of literacy in shaping an individual's character and problem-solving abilities.

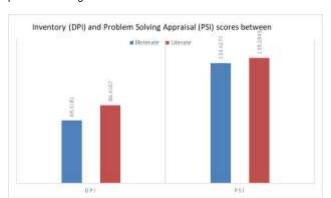


Figure.1: Comparison of the Dimensional Personality Inventory (DPI) and Problem Solving Appraisal (PSI) scores between literate and illiterate individuals

Similarly, figure 2 presents a comparison of the Dimensional Personality Inventory (DPI) and Problem Solving Appraisal (PSI) scores between urban and rural individuals. The figure indicates that the mean scores for both the DPI and PSI were higher for urban individuals than for rural individuals. This suggests that individuals living in urban areas tend to have better-developed personality traits and problem-solving abilities than those living in rural areas. The difference between the mean scores of urban and rural individuals is statistically significant, highlighting the impact of the urban environment on an individual's character and problem-solving abilities. The findings of this figure provide important insights into the disparities in personality and problem-solving abilities between urban and rural populations.

Figure 3 depicts a comparison of the Dimensional Personality Inventory (DPI) and Problem Solving Appraisal (PSI) scores between male and female individuals. The figure shows that the mean scores for both the DPI and PSI were higher for female individuals than for male individuals. This suggests that females tend to have better-developed personality traits and problem-solving abilities than males. The difference between the

mean scores of males and females is statistically significant, indicating the importance of gender in shaping an individual's character and problem-solving abilities. The findings of this figure provide important insights into the gender disparities in personality and problem-solving abilities, which have implications for policymakers, educators, and parents seeking to promote the wellbeing and development of both male and female individuals.

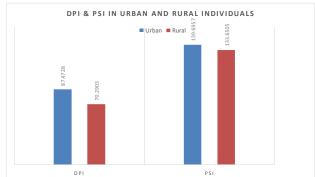


Figure.2: Comparison of the Dimensional Personality Inventory (DPI) and Problem Solving Appraisal (PSI) scores between Urban and Rural individuals

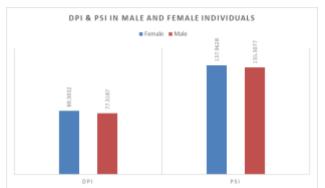


Figure.3: Comparison of the Dimensional Personality Inventory (DPI) and Problem Solving Appraisal (PSI) scores between Urban/rural male and female individuals

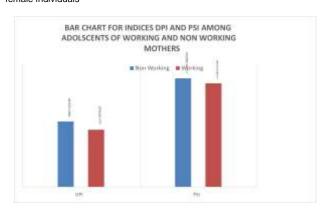


Figure.4: Comparison of the Dimensional Personality Inventory (DPI) and Problem Solving Appraisal (PSI) scores between working and Non-working

Figure 4 displays a comparison of the Dimensional Personality Inventory (DPI) and Problem-Solving Appraisal (PSI) scores between working and non-working mothers. The figure shows that the mean scores for both the DPI and PSI were higher for non-working mothers than for working mothers. This suggests that non-working mothers tend to have better-developed personality traits and problem-solving abilities than working mothers. The difference between the mean scores of working and non-working mothers is statistically significant, indicating the impact of maternal employment on an individual's character and problem-solving abilities. The findings of this figure provide important insights into the potential effects of maternal employment on the wellbeing and development of children, which have implications for parents, policymakers, and employers seeking to promote the optimal development of families and communities.

Figure 5 presents a comparison of the Dimensional Personality Inventory (DPI) and Problem Solving Appraisal (PSI) scores between non-working literate and non-working illiterate individuals. The figure indicates that the mean scores for both the DPI and PSI were higher for non-working literate individuals than for non-working illiterate individuals. This suggests that literacy has a significant impact on an individual's personality traits and problem-solving abilities, even when controlling for employment status. The difference between the mean scores of non-working literate and non-working illiterate individuals is statistically significant, highlighting the importance of literacy in shaping an individual's character and problem-solving abilities. The findings of this figure provide important insights into the disparities in personality and problem-solving abilities between literate and illiterate individuals, and have implications for policymakers. educators, and individuals seeking to promote literacy and improve the wellbeing and development of individuals and communities.

In Figure 5, it is also observed that the mean scores of both the DPI and PSI are higher for literate individuals who are employed compared to their illiterate counterparts who are also employed. This indicates that an individual's personality traits and problem-solving abilities are influenced by a combination of literacy and employment status. The statistical significance of the difference in mean scores emphasizes the importance of both literacy and employment in shaping an individual's character and ability to solve problems. The results of this figure provide valuable insights into the disparities in personality and problem-solving abilities between literate and illiterate individuals, and highlight the potential advantages of employment for literate individuals. These insights have significant implications for policymakers, educators, and employers who aim to enhance the wellbeing and development of individuals and communities by promoting literacy and employment.

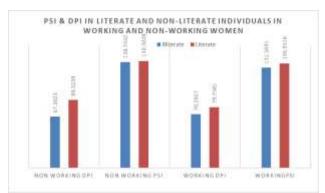


Figure.5: Comparison of the Dimensional Personality Inventory (DPI) and Problem Solving Appraisal (PSI) scores between working and Non-working Literates and Illiterates

Figure 6 illustrates a comparison between the mean scores of the Dimensional Personality Inventory (DPI) and Problem Solving Appraisal (PSI) for non-working urban and non-working rural individuals. The figure shows that the mean scores for both DPI and PSI were higher for non-working urban individuals than for non-working rural individuals. This indicates that individuals living in urban areas have higher levels of personality traits and problemsolving abilities than those living in rural areas. The statistical significance of the difference in mean scores further emphasizes this point. The findings of this figure provide important insights into the disparities in personality and problem-solving abilities between individuals living in urban and rural areas. Policymakers, educators, and employers may use these insights to develop interventions and policies to improve the wellbeing and development of individuals in rural areas by enhancing their personality traits and problem-solving abilities. Additionally, this figure highlights the need to focus on promoting urban-rural parity in access to education, employment opportunities, and other resources that can contribute to enhancing an individual's personality traits and problem-solving abilities.

The figure also shows that the mean scores for both DPI and PSI were higher for working urban individuals compared to working rural individuals. This indicates that individuals who are employed and living in urban areas have higher levels of personality traits and problem-solving abilities than those who are employed and living in rural areas. The statistical significance of the difference in mean scores further supports this finding. These results provide valuable insights into the disparities in personality and problemsolving abilities between working individuals living in urban and rural areas. Policymakers, educators, and employers may use these insights to develop interventions and policies to enhance the wellbeing and development of working individuals in rural areas. Additionally, this figure underscores the importance of providing access to education, employment opportunities, and other resources that can contribute to enhancing an individual's personality traits and problem-solving abilities, particularly for those living in rural areas.

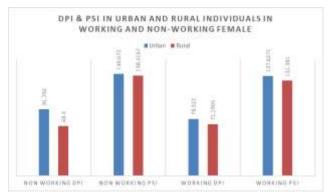


Figure.6: Comparison of the Dimensional Personality Inventory (DPI) and Problem Solving Appraisal (PSI) scores between working and Non-working Urban and Rural individuals

Independent Samples Test

DISCUSSION

The present study aimed to investigate the relationship between personality traits and problem-solving appraisal in adolescents of working and non-working mothers attending different schools and colleges in urban and rural areas. To assess this relationship, the reliability of the DPI and PSI scales was examined using an alpha reliability analysis, and the scales were found to be reliable for the study sample. The results revealed a positive correlation between personality dimensions and problem-solving appraisal, indicating that adolescents with higher scores on personality traits also had higher scores on problem-solving appraisal.

The current findings are consistent with previous research conducted by (10) who reported a positive association between self-control and emotional stability, which can have an impact on an individual's problem-solving skills. Moreover, studies have found that maternal temperament traits during early mother-adolescent interactions can influence emotion control in teenagers (11) which is also linked to problem-solving abilities. These findings highlight the role of emotional stability and maternal

temperament traits in shaping an individual's personality and problem-solving abilities.

Our study also found a significant correlation between PSI, DPI, and attending urban schools. A previous study by (12) reported that boys in urban areas tend to be more gregarious and laid-back, while boys in rural areas are more reserved, shy, and uneasy, which could explain the higher scores on personality traits and problem-solving appraisal in urban adolescents compared to their rural counterparts.

The result of our study adds to the growing body of literature on the impact of maternal employment on children's development. According to a study by (13) maternal employment has been found to have both positive and negative effects on children's development. The positive effects include higher academic achievement, higher self-esteem, and improved social skills, while the negative effects include increased stress and less time spent with the child. However, the relationship between maternal employment and children's development may be influenced by various factors such as the mother's education level, the child's age and gender, and the type of job the mother holds.

Research has shown that the mother's education level has a significant impact on the development of children. Parental education and adolescents' healthy personalities and lifestyle choices are positively correlated (14) and educated mothers encourage their children to participate in activities that foster creativity (15). Additionally, a study by (16) found that children of more educated mothers tend to have better cognitive and behavioral outcomes. Similarly, a study conducted by (17) investigates the relationship between maternal employment, maternal depressive symptoms, and adolescent externalizing behaviors. They found that children whose mothers worked fulltime had higher levels of aggression, depression, and anxiety compared to children whose mothers did not work or worked parttime. Another study by (18) found that maternal warmth and emotional security were related to less internalizing and externalizing problems.

Another study by (19) examined the relationship between maternal employment and adolescent academic achievement. The study found that maternal employment had a positive effect on adolescent academic achievement, particularly for low-income families. The study suggested that maternal employment provided additional financial resources that could be invested in the child's education, such as tutoring or private school fees. Furthermore study conducted by (20) found that the mother-child relationship was related to problem-solving styles. In contrast, a study by (21) found that adolescents of working mothers tended to exhibit higher levels of self-esteem and problem-solving abilities compared to those of non-working mothers.

Furthermore, the role of gender in the relationship between maternal employment and children's development has also been studied extensively. A study by (22) found that maternal employment has a more positive effect on girls' academic achievement and behavioral outcomes compared to boys. This is consistent with our finding that girls of non-working mothers outperformed boys of non-working mothers in personality and problem-solving appraisal. Overall, these findings have important implications for policymakers, educators, and parents in promoting literacy and employment as means to improve the wellbeing and development of adolescents, particularly those living in rural areas. Limitations: Despite the strengths of the current study, there are several limitations that should be acknowledged:

- The sample only consisted of students from urban schools, so generalizing the results to rural students may not be appropriate.
- Further research should investigate this topic in more detail, using different variables and examining the impact of working mothers.
- Only quantitative methods were used in this study; future research could incorporate qualitative methods to gain a more thorough understanding of the topic.

- Self-reported scales may be subject to bias.
- The data collection tools will be in Urdu medium to ensure better understanding by the students.
- The study only included girls in the sample.
- The students from standard VIII, IX, XI, and XII were included, and only government schools were selected.
- Private schools were not included in the study.
- The study selected schools from both rural and urban areas
- Future research could examine the effects of maternal employment on other factors that affect adolescent development. Implications: The study's implications are multi-faceted. Firstly, it highlights the importance of maternal employment and its impact on the personality traits and problem-solving abilities of female adolescents. Policymakers and educators can use these insights to design interventions to promote positive personality traits and problem-solving skills in female adolescents. Secondly, the study contributes to the existing literature on the effects of maternal employment on children's development. The results expand our understanding of how maternal employment influences different aspects of children's lives and could stimulate further research in this area. Thirdly, the study's findings can help working mothers combat societal pressures and reduce social stigma or guilt for working outside the home. Organizations can offer awareness seminars and lectures to reconcile biases against working moms, and working mothers can be given more flexibility in scheduling their time to balance work and parenting responsibilities. Additionally, teachers have a role in interacting with females and solving concerns before they become significant issues, moreover, professional counselors and Psychologist and counselors should work on reducing parents' and children's stress levels, helping them acknowledge their strengths, control their stressors, and be mentally healthy. Overall, the study could have significant implications for policymakers, educators, researchers, and working mothers, and could contribute to promoting positive development in female adolescents.

REFERENCES

- Kobak RR, Sudler N, Gamble W. Attachment and depressive symptoms during adolescence: A developmental pathways analysis. Development and psychopathology. 1991;3(4):461-74.
 Breehl L, Caban O. Physiology, Puberty-StatPearls-NCBI Bookshelf.
- 2.
- 3. Anderson P. Assessment and development of executive function (EF) during childhood. Child neuropsychology. 2002;8(2):71-82
- Zimmermann P, Maier MA, Winter M, Grossmann KE. Attachment and adolescents' emotion regulation during a joint problem-solving task with a friend. International Journal of Behavioral Development. 2001:25(4):331-43.
- Bowlby J, Ainsworth M. The origins of attachment theory. Attachment Social, developmental, and clinical 2013;45(28):759-75.

- 6. Bortolini M, Piccinin CA. Representação de apego materna, relação mãe-criança e apego inseguro do filho: um estudo qualitativo. Estudos e Pesquisas em Psicologia. 2017;17(3):1101-21.
- Fleming T. A Secure Base for Adult Learning: Attachment Theory and Adult Education. adult learner: the Irish journal of adult and community education. 2008;33:53.
- Vásquez-Écheverría A, Alvarez-Nuñez L, Gonzalez M, Loose T, Rudnitzky F. Role of parenting practices, mother's personality and depressive symptoms in early child development. Infant Behavior and Development. 2022;67:101701.
- Heppner P. The problem solving inventory: Consulting Psychologists 9. Press Palo Alto, CA; 1988.
- Tangney JP, Baumeister RF, Boone AL. Self-control scale. Current Psychology: A Journal for Diverse Perspectives on Diverse Psychological Issues. 2004.
- Eisenstein DJ, Weinberg DH, Agol E, Aihara H, Prieto CA, Anderson SF, et al. SDSS-III: Massive spectroscopic surveys of the distant universe, the Milky Way, and extra-solar planetary systems. The Astronomical Journal. 2011;142(3):72.
- Brahmbhatt DH, Ross HJ, Moayedi Y. Digital technology application for improved responses to health care challenges: lessons learned from COVID-19. Canadian Journal of Cardiology. 2022;38(2):279-91.
- Pong SI, Hao L. Neighborhood and school factors in the school performance of immigrants' children 1. International Migration Review. 2007;41(1):206-41.
- Yáñez JA, Jahanshahi AA, Alvarez-Risco A, Li J, Zhang SX. Anxiety, distress, and turnover intention of healthcare workers in Peru by their distance to the epicenter during the COVID-19 crisis. The American Journal of Tropical Medicine and Hygiene. 2020;103(4):1614.
- Bintoro BK, Lutfiani N, Julianingsih D. Analysis of the effect of service quality on company reputation on purchase decisions for professional recruitment services. APTISI Transactions on Management (ATM). 2023:7(1):35-41
- Ruhm C, Waldfogel J. Long-term effects of early childhood care and 16. education. Nordic Economic Policy Review. 2012;1(1):23-51.
- Holmes EK, Holladay HM, Hill EJ, Yorgason JB. Are mothers' workto-family conflict, school involvement, and work status related to academic achievement? Journal of Child and Family Studies. 2018;27:1881-98.
- Alegre A, Benson MJ, Pérez-Escoda N. Maternal warmth and early adolescents' internalizing symptoms and externalizing behavior: Mediation via emotional insecurity. The Journal of Early Adolescence. 2014;34(6):712-35.
- Vernon-Feagans L, Willoughby M, Garrett-Peters P. Predictors of behavioral regulation in kindergarten: Household chaos, parenting, and early executive functions. Developmental 2016;52(3):430.
- Green LM, Missotten L, Tone EB, Luyckx K. Empathy, depressive symptoms, and self-esteem in adolescence: The moderating role of the mother-adolescent relationship. Journal of Child and Family Studies. 2018;27:3964-74.
- Fadaly EM, Dijkstra A, Suckert JR, Ziss D, Van Tilburg MA, Mao C, et al. Direct-bandgap emission from hexagonal Ge and SiGe alloys. Nature. 2020;580(7802):205-9.
- Hsin A, Felfe C. When does time matter? Maternal employment, children's time with parents, and child development. Demography. 2014;51(5):1867-94.