**INTERNATIONAL JOURNAL OF  
EDUCATION, PSYCHOLOGY  
AND COUNSELLING  
(IJEPC)**[www.ijepec.com](http://www.ijepec.com)**PRECOCIOUS PUBERTY AND PEER RELATIONSHIPS OF  
PREADOLESCENT GIRLS**Catherine Kawira \*<sup>1</sup>, Anne Wambugu<sup>2</sup>, Nathan Chiroma<sup>3</sup><sup>1</sup> Department of Psychology (MAFT), Pan Africa Christian University, Nairobi, Kenya.

Email: Catherine.Julius@students.pacuniversity.ac.ke

<sup>2</sup> Department of Psychology (MAFT), Pan Africa Christian University, Nairobi, Kenya.

Email: Anne.Wambugu@pacuniversity.ac.ke

<sup>3</sup> Department of Children and Youth, Pan Africa Christian University, Nairobi, Kenya

Email: Nathan.chiroma@pacuniversity.ac.ke

\* Corresponding Author

**Article Info:****Article history:**

Received date: 24.01.2021

Revised date: 01.02.2021

Accepted date: 11.03.2021

Published date: 15.03.2021

**To cite this document:**

Kawira, C., Wambugu, A., & Chiroma, N. H. (2021). Precocious puberty and peer relationships of preadolescent girls. *International Journal of Education, Psychology and Counseling*, 6 (38), 184-192.

**DOI:** 10.35631/IJEPC.6380015.**This work is licensed under [CC BY 4.0](https://creativecommons.org/licenses/by/4.0/)****Abstract**

This article discusses the relationship between precocious puberty and the peer relationships of preadolescent girls in public primary schools in Kiambu County, Kenya. This article is based on a case study of twelve selected public primary schools (representing the 12 constituencies) of Kiambu County, Kenya. The sample population was a total of four hundred and ten pre-teenage girls drawn from eight to twelve-year-old girls, and eight class teachers, who were purposively sampled from twelve randomly selected public primary schools in the study location. This was a mixed study that utilized both quantitative and qualitative data collection methods. The self-rating scale for pubertal maturation and the peer connectedness scale was used to assess for signs of precocious puberty and the quality of peer relationships respectively. In addition, structured interviews and focus group discussions were used to gather additional primary data. The instruments were pilot-tested on a sample of thirty-six respondents who were purposively sampled from three public primary schools in the sample location, and who were omitted from the actual study sample. The quantitative data was analysed using the Statistical Package for Social Sciences (SPSS) version 26, while the qualitative data was analysed using the content analysis approach. Analysed data was presented using both figures and tables. This study found a significant relationship ( $\beta=0.258$ ,  $p=0.011$ ) between precocious puberty and peer relationships among preadolescent girls. This was confirmed by the interview responses and the focus group narratives. The study concluded that earlier pubertal maturation led to strained peer relationships among preadolescent girls. This article recommends that forums to educate children on the stages of development and how to handle each of them be incorporated in the curriculum, to prepare girls for pubertal maturation whenever it occurs.

**Key Words:**

Precocious Puberty, Peer Relationships, Preadolescent Girls

**Introduction**

This article discusses the relationship between precocious puberty and the peer relationship of preadolescent girls in primary schools in Kiambu County, Kenya. Global statistics show that the incidence of precocious puberty is on the increase worldwide and that there has been a significant decline in the age at which pubertal changes occur over the last few decades (Atta et al., 2014). Studies also show that early pubertal maturation can have negative outcomes on peer relationships (Choi & Kim, 2016). This article sought to specifically establish how precocious puberty affects the relationships between peers among preadolescent girls. It is hoped that this knowledge will help in finding better ways of taking care of the developing girls. The article will introduce the two variables precocious puberty and peer relationships, review literature on the relationship between the two variables, discuss the study findings and make conclusions and recommendations.

Pubertal maturation is a dynamic physical, psychological, biological, social and emotional process that is accompanied by visible physical changes in the body and the onset of secondary sexual characteristics. Pubertal maturation is not a single biological event, but a combination of hormonally driven changes, which for girls, begins with the onset of secondary sexual characteristics such as the development of breast buds and the appearance of pubic and underarm hair at around age eight, culminating with the onset of menstruation around age twelve (Brito et al., 2016; Lee et al., 2015). Whereas precocious puberty can happen for girls and boys, this article specifically focuses on girls. Precocious puberty is therefore defined as the appearance of any sign of secondary sexual maturation such as development of breasts and emergence of pubic and underarm hair before age eight or the onset of menstruation before age twelve in girls.

Peer relationships refer to connections that exist between individuals of the same age who have recurring interactions that have personal meaning to the participants (August, 2013). Relationships and associations with others lead people to a sense of being valuable parts of the society, motivates them towards building communities, and encourages them to work for the welfare of others (Fatima, Niazi and Ghaya, 2018). Although early adolescence is a time when young people distance themselves from their parents, Fatima et al. (2018) argued that the parent-child relationships are essential to an adolescent's psychological health, and adolescents who have strong relationships with their families also maintain good relationships with their peers. According to Kenny, Dooley and Fitzgerald (2013), friendships become more intimate during adolescence, and the quality of friendships is characterized by high levels of intimacy, support and warmth, which positively influences the self-esteem and psychosocial adjustment, and reduces depressive symptomatology among adolescents (Kenny et al., 2013). Poor quality relationships and low levels of support from family and friends during adolescence have been associated with poor mental health and poorer coping skills (Nilsen, Kerevold, Roysamb, Gustavson & Mathiesen, 2013).

## Literature Review

Pubertal maturation in and of itself is a time of great challenge for most girls, but when it occurs earlier than expected, it can pose a challenge for peer relationships especially for preadolescent girls. This literature review discusses how earlier pubertal maturation distances the girls from their same age peers making it difficult to form peer relationships. The literature also discusses the challenges girls experience when they try to identify or fit in order groups, and the outcomes of being in those groups.

Preadolescent children are more sensitive to their physical appearances as they seek acceptance within peer groups. When they mature early, preteen age girls increase in weight making them stand out from their peers at a time that they would rather fit in. Due to the need to belong, adolescence is a time when young people do not want to be distinguished from peers in any way or form (Marceder-yus, et al., 2018). Unfortunately, the body changes resulting from early maturation causes the girls to look older than peers of the same age, making it difficult for them to initiate and maintain friendships with same sex peers who have not developed at a similar rate. Telzer, Fuligni, Liuberman, Miernicki and Galva (2015) noted that difficulties in maintaining positive peer relationships, conflicts with one's peers and the inability to initiate and maintain meaningful peer relationships are associated with a host of negative outcomes including aggression, depression, delinquency, substance use and low self-esteem.

The precocious physical maturity may also cause the girls to experience a different treatment from other people (Choi & Kim, 2016). For example, the young girls may receive attention from older men, or face rejection and bullying from their peers (McCormick et al., 2015). The struggle to fit in, the rejection from peers and the pressure from older men, may initiate feelings of isolation and rejection in young girls, which may result to other consequences such as low self-esteem and other pathologies. Atta et al. (2014) noted that when puberty sets in early, the developing individual may look older and stand out among peers in a negative way, which may lead to rejection, conflicts, feelings of isolation, and in some circumstances sexual harassment by older men.

Gicharu and Sindabi (2015) argued that teenagers have a great desire to identify and be accepted by their peers. To achieve this, they may try different selves in different situations such as school, home, church and with peers. Early maturing girls may attempt to fit in peer groups that are older than them, and risk getting into an identity crisis (a situation where adolescents explore different possibilities and integrate different parts of themselves, while failing to form a cohesive identity beyond adolescence) which can lead to problems later in life (Gicharu & Sindabi, 2015). Adolescents who are rejected by their peers may engage in negative behaviours such as substance abuse, which may lead to other consequences like dropping out of school or violent behaviour (Sackman & Terway, 2016). In a study conducted to examine the interactive effect of pubertal timing and peer stress on internalizing and externalizing symptoms in a sample of young adolescents, Sontag et al. (2011) found that early maturation was associated with higher levels of overt aggression, and that this effect was strongest for early maturing girls, who also reported higher levels of peer stress.

According to Mrug et al. (2014), precocious puberty is associated with a number of behavioural and emotional problems in girls including, conduct problems, relational aggression, substance use and delinquency. One of the mechanisms that is implicated in the behavioural problems among girls who mature early is negative peer influence. When girls start maturing earlier than

the normal time, they tend to gravitate towards older peers who may influence them negatively by modelling and reinforcing problem behaviour (Mrug et al., 2014). In their 5 year study to determine the relationship between early puberty, negative peer influence and problem behaviour in adolescent girls, Mrug et al. (2014) found that early onset of puberty was associated with problem behaviour, and an increase in physical aggression among girls. The researchers also found that having a deviant best friend, was associated with higher levels of aggression and delinquency among early maturing girls at age 11.

### **Theoretical Framework**

This study was guided by Erick Erickson's psychosocial theory of human development. This theory was picked because it clearly explains the various stages of development and the tasks and challenges inherent in each of the stage. This provides insight as to the challenges that a girl is already facing at this age of development besides the challenges that precocious puberty presents. Erickson refereed to the preadolescent age under investigation in this study as the industry versus inferiority stage or the school age. According to Erickson (1950) children in this age are faced with diverse challenges including the need to develop their own skills, gain confidence, prove their competence and obtain new academic and social demands. When children negotiate this stage successfully, they emerge as competent and confident individuals. However, failure to negotiate this stage successfully leads to lack of confidence and feelings of inferiority (McLeod, 2018). This stage is a challenge in and of itself, but when it is paired with early pubertal maturation it presents an overwhelming burden for the girls who are seldom old enough to handle it.

### **Research Methodology**

This study used the descriptive case study research design to investigate the relationship between precocious puberty and the peer relationships among preadolescent girls in primary schools in Kiambu County. The study location was chosen because it is a large county with different demographic characteristics including, warm and cold weather conditions, the rural and urban, the rich and the poor and people from different ethnic backgrounds. This was useful for the study because some of the demographic characteristics are indicated in precocious puberty. The study participants were a total of four hundred and thirty two preadolescent girls and twelve class teachers, purposively sampled from twelve public primary schools representing each of the twelve constituencies of Kiambu County. Out of the total number of participants only four hundred and ten girls and eight class teachers completed the study successfully. The girls answered the questionnaires with the help of the researcher and the class teachers. In addition, data was also collected using structured interviews and focus group discussions. The researcher individually interviewed the preadolescent girls and their class teachers and conducted focus group discussions with groups of girls which allowed for more in depth responses. Both field notes and recordings with an I- pad were used to record the responses. Before the actual study, the researcher carried out a pilot study of thirty six girls purposively selected from three randomly selected public schools within the study location which were omitted from the actual study.

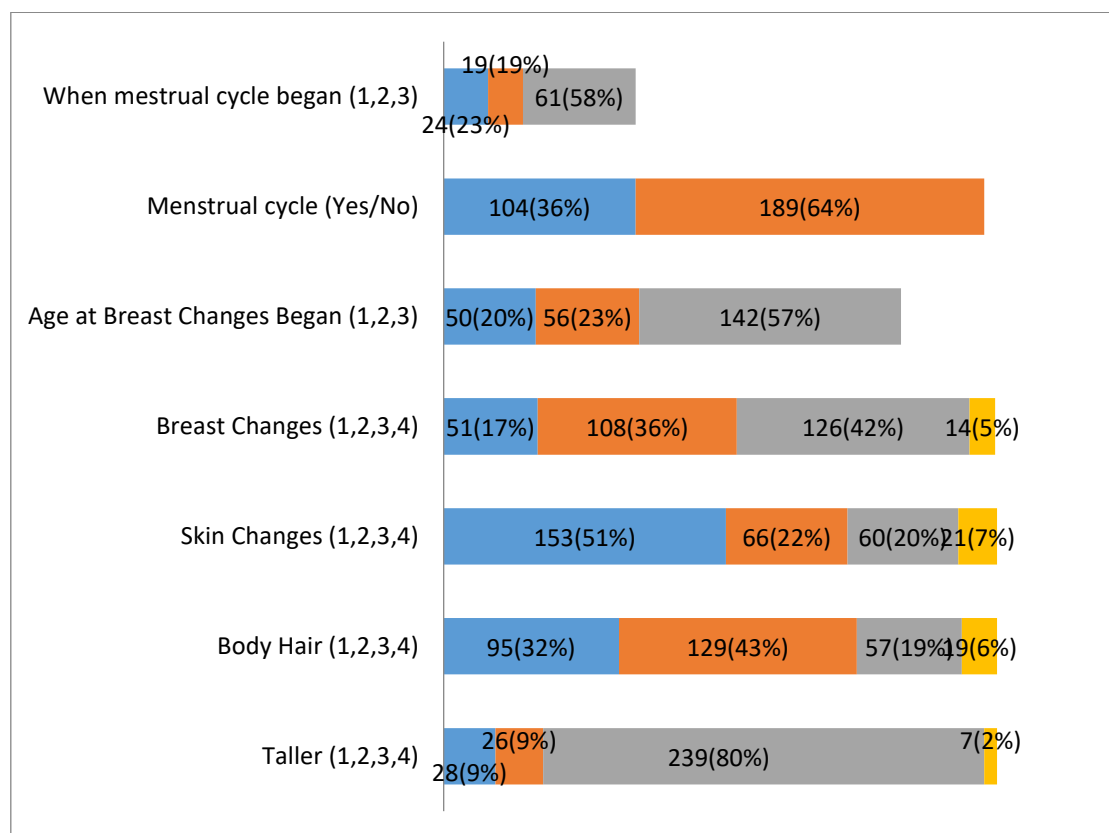
The pubertal development self-rating scale that was described by Petersen, Crockett and Boxer (1988) was used to assess for precocious puberty. The scale measures pubertal development without interviews or pictorial representation. In a study conducted in schools in Iowa and suburban Chicago with 102 students who were matched by grade, race and gender, Robertson, Skinner and Love (1992) found that the psychometric analysis of the five-item scale had

adequate internal consistency of .66 and .81 for boys and girls respectively. The study concluded that the predictive validity of the pubertal development scale was satisfactorily (Robertson et al., 1992). The quality of peer relationship among the girls was measured using the peer connectedness scale, an instrument adapted from the Hemingway's Measure of Adolescent Connectedness (MAC) to peers subscale. The tool is a 6- item scale that measures a young person's positive feelings of connection with his or her peers. It assesses the extent to which the youth feels positive about his or her peers and enjoys working with peers on projects and school related tasks (Karcher & Sass, 2010). This measure was selected because of its grounding in theory, wide developmental applicability and evidence of reliability and validity. In a study to examine the reliability, validity and correlation of the adolescent connectedness scale, Karcher and Lee (2002) sampled 322 junior high school students and found that the connectedness scales demonstrated exemplary inter-item reliability with Cronbach alpha of more than .80.

### Ethical Considerations

Permission to collect data from the girls who were minors, was granted by the head teachers, the girls and their parents. After they gave their informed consent, the respondents were informed of their right to withdraw from the study at any time and were assured of confidentiality. This was a voluntary study and no incentives were given to participate.

### Results



**Diagram Showing The Observable Changes In The Body.**

Source: (Kawira, Wambugu, & Chiroma, 2021).

### ***Precocious Puberty***

The results from the observable changes in the body above revealed that 104 girls had begun menstruation, 248 had started breast development, 205 had pubic hair, and 147 had skin changes, while 239 girls had increases in height. The study also showed that 63 girls had begun their menstruation before the age of 12 years while 50 girls had breast development before age 8. The structured interview responses indicated that 20 girls had begun menstruating before age 12. These results revealed that out of the 410 respondents who participated in this study 114 had signs of precocious puberty.

### ***Peer Relationships***

The respondents' peer relationships were assessed a 5-point Likert scale (5-Very True-All the time, 4-True-Many times, 3-Sort of-Sometimes, 2-Not really-Rarely, 1-Never-Rarely).

<b>Statement</b>		<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>T</b>	<b>M</b>
My classmates often bother me.	F	39	38	113	47	63	300	3.19
	%	13%	12%	38%	16%	21%	100%	64%
I like all the children in my class.	F	144	51	54	40	11	300	3.92
	%	48%	17%	18%	13%	4%	100%	78%
I like working with my classmates.	F	159	65	58	7	11	300	4.18
	%	53%	22%	19%	2%	4%	100%	84%
I get along well with the other children in my classes.	F	102	70	79	28	21	300	3.68
	%	34%	23%	26%	9%	7%	100%	74%
My classmates like me	F	124	63	81	12	20	300	3.86
	%	42%	21%	27%	4%	6%	100%	77%
I do not fight or argue with the other children at school.	F	78	33	85	45	59	300	2.91
	%	26%	11%	28%	15%	20%	100%	58%

**Table 1.1: Peer Relationships**

The findings in table 1.1 above showed that 84% of the respondents liked working with their classmates, 78% liked all the children in their class, 77% were liked by their classmates, 74% got along well with their classmates, 64% were often bothered by their classmates, while 58% of the respondents said that they did not fight or argue with other children at school.

### ***The Interviews and Focus Group Discussions***

The interviews asked the girls how the changes in their bodies affected their relationships with peers. 21 girls reported that they did not share their developmental changes with their friends due to lack of trust; while 16 girls' reported that their friends were indifferent about their body changes. Further, 8 girls were celebrated, 7 were abandoned, 2 were supported 1 was gossiped, 1 was despised, and 4 of the girls were envied by their friends when pubertal maturation begun. According to these results only 10 girls had positive responses from peers when pubertal maturation begun early. The other 50 had negative responses from peers which indicate signs of strained peer relationships. The class teachers also answered a question on how early pubertal maturation affected the girls' relationship with same age peers. Their responses showed that 38% of the teachers had noticed the girls grouping themselves according to their body changes, another 38% of the teachers said that the girls were laughed at by their

peers, 13% of the teachers said the girls were discriminated against by their friends, while another 13% teachers reported that the girls were envied by others when they started pubertal maturation early. These results showed that 100% percent of the teachers reported negative peer response for the girls who matured early. According to the focus group discussions 23 girls reported having negative experiences while 5 of them reported having positive experiences when they began to mature sexually. Some of the girls shared their experiences with their peers when pubertal maturation set in early;

Respondent 1.3: *“I messed my dress and my classmates laughed at me and I was embarrassed. I looked for friends who were like me and began to adapt to my situation.”*

Respondent 5.2: *“...I felt so bad and at that point I wished that I was a boy. I never wanted to see girls because I imagined that they had spread the disease to me. To date I prefer to mingle with boys and not girls”.*

Respondent 3.1: *“When my body started changing I was very embarrassed. I lost appetite and did not feel like playing with my age mates. I felt that I was older than everybody. I looked for older friends who could understand and encourage me”.*

Respondent 4.8: *“I stopped playing with children and started making new friends “My mother said that I was now a grown up and that I should not play with boys”.*

Respondent 4.4: *“At school I was just feeling uncomfortable and so I looked for friends who were bigger than me and this made me feel confident that I had grown like them”*

Respondent 4.5: *“The girls who had already experienced the changes before me looked down on me and that made me feel very bad”.*

To determine the relationship between precocious puberty and peer relationships a regression analysis was done as shown in table 1.2 below.

**Table 1.2: Regression Analysis**

Coefficients <sup>a</sup>					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.922	.695		2.767	.007
Peer Relationships	.258	.073	.423	3.934	.011

a. Dependent Variable: Precocious Puberty

H0 There is no relationship between precocious puberty and peer relationships among girls in primary schools in Kiambu County.

The regression model above showed ( $\beta=0.258$ ,  $p=0.011$ ) implying that there was a significant relationship between precocious puberty and peer relationships among preadolescent girls.

## Discussion

The frequency tabulations, the interview responses from both the girls and their class teachers and the focus group narratives indicated that a good number of girls had signs of precocious puberty. These findings further indicated that girls who experienced earlier pubertal maturation had difficulties with peer relationships. The regression analysis indicated that there was a significant relationship between precocious puberty and peer relationships among preadolescent girls in primary schools in Kiambu County. These findings were also confirmed by the responses of the structured interviews and the focus group discussions. These results were similar to those of Atta et al. (2014) who noted that when puberty sets in early, the developing individual may look older and stand out among peers in a negative way, which may lead to rejection. This study hypothesized that one of the reasons for the strained relationships in precocious puberty is that peers may not understand what is happening to one or more of them. As they begin to inquire from each other, they stay away from the 'victims' which is interpreted as gossip, discrimination or rejection. The 'victims' on sensing the rejection may also stay away from the peers and seek friendship with older girls who will be more understanding and supportive. This is especially true when the physical signs of maturity such as breast development become noticeable or when younger girls begin to menstruate and make a mess of it.

## Conclusion

This study sought to determine the relationship between precocious puberty and peer relationships among preadolescent girls. The study findings indicate that there is a significant relationship between precocious puberty and peer relationships among preadolescent girls. The researcher concluded that early maturity contributed to strained peer relationships among young girls. Given the increases in the number of girls who mature early, the important role that peers play in the holistic development of individuals especially during adolescence, and the negative effects of early maturity on peer relationships, it was critical for a study of this nature to be conducted. The findings of this study may help the adults to find mitigating factors that may prevent the negative outcomes of precocious puberty and its effects on the peer relationships among developing girls. This information may also help the adults and peers to become more understanding and supportive of the early maturing girls thus preventing the negative impact of precocious puberty and peer relationships.

## Recommendations

This researcher recommends that forums that empower children with knowledge about stages of development and how to handle each of them be incorporated in the curriculum. This knowledge will prepare the girls to handle the changes that come with each stage and enable peers and teachers to be more supportive of girls who experience puberty early. In so doing the negative effects emanating from the relationship between precocious puberty peer relationships may be controlled.

## References

- August, K. J., & Rook, K. S. (2013). Social Relationships. In M. D. Gellman & J. R. Turner (Eds.), *Encyclopaedia of Behavioural Medicine* (pp. 63-71). New York: Springer.
- Atta, I., Laghari, T. M., Khan, Y. N., Lone, S. W., Ibrahim, M., & Raza, J. (2014). Precocious puberty in children. *Journal of the College of Physicians and Surgeons of Pakistan*, 25(2), 124-128.



- Brito, V. N., Castrol, A. M. S., Kochi, C., Kopacek, C., Alves da Silva, P. C., & Junior, G. G. (2016). Central precocious puberty: revisiting the diagnosis and therapeutic management. *Archives of Endocrinal Metabolism*, 60(2), 163-172.
- Choi, M., & Kim, E. (2016). Body image and depression in girls with idiopathic precocious puberty treated with gonadotropin-releasing hormone analogue. *Annals of Paediatric Endocrinal Metabolism* 21, 155-160.
- Erikson. R. (1950). *Childhood and Society*. New York, NY: WW Norton.
- Fatima, M., Niazi, S., & Ghaya, S. (2018). Relationship between self-esteem and social Anxiety: Role of Social connectedness as mediator. *Pakistan Journal of Social and Clinical Psychology*, 15(2), 12-17.
- Gicharu, N., & Sindabi, M. (2015). Influence of adolescence developmental changes on academic performance of students in public secondary schools in Nakuru municipality. *International Journal of Science and Research*, 5(7), 1-10.
- Karcher, J., & Lee, Y. (2002). Connectedness among Taiwanese middle school students: a radiation study of the Hemingway measures of adolescent connectedness. *Asian Pacific Education Review*, 3(1), 92-114.
- Karcher, J., & Sass, D. (2010). A multicultural assessment of adolescent connectedness: testing measurement invariance across gender and ethnicity. *Journal of Counselling Psychology*, 57, 274-289.
- Kenny, R., Dooley, B., & Fitzgerald, A. (2013). Interpersonal relationships and emotional distress in adolescence. *Journal of Adolescence*, 36, 351-360.
- Lee, J., Ahn, H. Y., & Choi, H. (2015). A study of body image, self-esteem and depression in girls with precocious puberty and normal girls. *Advanced Science and Technology Letters*, 116, 21-25.
- Marceder-Yus, E., Neipp-Lopez, M. C., Gomez-Mendez, P., Vergas-Torcal, F., Gelves-Ospina, M., Puerrta-Morales, L., & Mancera-Sarmiento, M. (2018). Anxiety, self-esteem and body image in girls with precocious puberty. *Epub*, 47(4), 229-236.
- McLeod, A. (2018). *Erick Erickson's stages of psychosocial development*. Retrieved from <http://www.simplypsychology.org/ErickErickson.Html>.
- Mrug, S., Elliot, N., Davies, S., Tortolero, S. R., Cuccaro, P. & Schuster, M. A. (2014). Early puberty, negative peer influence and problem behaviour in adolescent girls. *Pediatrics*, 133 (1), 7-14.
- Nilsen, W., Kerevold, E., Roysamb, E., Gustavson, K., & Mathiesen, S. (2013). Social skills and depressive symptoms across adolescence: social support as a mediator in girls versus boys. *Journal of Adolescence*, 36(1), 11-20.
- Petersen, C., Crocket, L., Richards, M., & Boker, A. (1987). A self-report measure of pubertal status: reliability, validity and initial norms. *Journal of Youth and Adolescence*, 17(2), 117-118.
- Robertson, L., Skinner, M., & Love, M. M. (1992). The pubertal development scale: a rural and suburban comparison. *Journal of Early Adolescence*, 2, 171-186.
- Sackman, R., & Terway, A. (2016). *Looking through the lens of adolescent development to strengthen secondary education: post primary education and young initiative*. Retrieved from <http://www.fhi369.org>.
- Telzer, H., Fuligni, J., Liuberman, D., Miernicki, E., & Galva, A. (2015). The quality of adolescents peer relationships modulates neural sensitivity to risk taking. *Scan*, 10, 389-398.