Factors Affecting Early Marriage among Female Adolescents: A Path Analysis Evidence from Blora, Central Java

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ABSTRACT

Background: Early marriage is a phenomenon which has been a controversy to this day. The prevalence of early marriage in Indonesia has decreased, namely in 2013 by 24% and decreased by 1% in 2015. The purpose of this study was to analyze the factors that influence early marriage in Blora, Central Java, using a path analysis model.

Subject and Method: This was a cross sectional study conducted in Blora, Central Java, from September to October 2019. A sample of 200 married women within 5 years was selected by random sampling. The dependent variable was early marriage. The independent variables were parental income, peer support, society culture, parental support, daughter's status, attitude, subjective norms, perceived control of behavior (PBC), and intention. The data were collected by questionnaire analyzed by path analysis run on Stata 13.

Results: The likelihood of early marriage in adolescents increased with strong intention (b= 2.06; 95% CI= 3.00 to 1.13; p <0.001) and low family income (<Rp. 1,650,000) (b= 1.83; CI 95% = 2.68 to 0.98; p<0.001). The likelihood of early marriage was decreased with weak status of girls in families (b= -1.71; 95% CI= -2.61 to -0.80; p<0.001) and strong peer support to not do early marriage (b= -2.08; 95% CI= -2.98 to -1.19; p<0.001). Early marriage was indirectly affected by attitude through society culture, intention through family support, intention through attitude, intention through perceived behavioral control, and family support through subjective norm.

Conclusions: The likelihood of early marriage in adolescents increases with strong intention and low family income. The likelihood of early marriage is decreased by weak status of girls in families and strong peer support to not do early marriage. Early marriage is indirectly affected by society culture, family support, attitude, PBC, and subjective norm.

Keywords: early marriage, adolescents

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BACKGROUND

Early marriage is a marriage carried out by a person before reaching the age of 20 years old. Under Law No. 1 of 1974 which states that a person may marry if the bridegroom is 19 years old and the bride is 16 years old and has obtained written permission from the parents (BPS, 2017).

Globally, female adolescent who marry before the age of 18 are 720 million while boys are 156 million. Indonesia is in the 7 (seven) position with 1,408,000 cases of early marriage (BPS, 2016).

Blora Regency is in the fourth rank in Central Java Province with the highest prevalence of early marriage rate of 20%. Central Java Province was in the 23rd rank with a prevalence of early marriage rates of 21.1%. Early marriages have an impact especially on girls who have early marriages (BPS, 2016).

Based on the research of Wahi et al.
(2017), it stated that 18 out of 20 samples mentioned that as a result of early marriage, they experienced physical, sexual, economic, emotional and unwanted pregnancy.

A study by Icek Ajzen and Martin Fishbein in 1975 in Audina (2017) mentioned the theory of planned behavior which states that certain behaviors can be known through the determinant factors of the behavior.

SUBJECTS AND METHOD

1. Study Design
This was an analytic observational study with a cross-sectional design. The study was conducted in Blora, Central Java, from September to October 2019.

2. Population and Sample
The study population was married women in Blora Regency, Java. 200 study subjects were married in the last 5 years. Sampling in this study was using random sampling.

3. Study Variables
The dependent variable was early marriage. The independent variables were the income of parents, peers, culture in the community, parental support, daughter status, attitude, subjective norm, PBC, and intention.

4. Operational Definition of Variables
Early marriage was women who are married at the age of less than 20 years in the last 5 years. Measuring instruments was using a questionnaire. Categorical data scale, with code 0: no early marriage; 1: early marriage.

Family income measured based on the average of income received monthly for 6 months. Measuring instruments was using a questionnaire. The measurement scale was continuous and transformed into dichotomous, coded 1: Low; 0: High.

Daughter’s status measured based on community perceptions that assess the status of women on men. Measuring instruments was using a questionnaire. The measurement scale was continuous and transformed into dichotomous, coded 1: negative; 0: positive.

Peer support can be measured based on the support given by peers to postpone the marriage <20 years old. Measuring instruments was using a questionnaire. The measurement scale was continuous and transformed into dichotomous, coded 0: low; 1: high.

Society culture measured based on the presence or absence of culture that affected the occurrence of early marriage. The data were collected by questionnaire. The measurement scale was continuous and transformed into dichotomous, coded 0: weak; 1: strong.

Family support measured based on the support given by the family to postpone the marriage at the age of less than 20 years old. Measuring instruments was using a questionnaire. The measurement scale was continuous and transformed into dichotomous, coded 0: weak; 1: strong.

Attitude measured based on positive or negative assessments relating to the ease or obstacles that affect early marriage behavior. Measuring instruments was using a questionnaire. The measurement scale was continuous and transformed into dichotomous, coded 1: negative; 0: positive.

Subjective norm measured by the way someone to implement a norm that is in their environment. The measurement scale was continuous and transformed into dichotomous, coded 1: weak; 0: strong.

Perceived behavioral control measured based on a person’s assumption relating to early marriage. The measurement scale was continuous and transformed into dichotomous, coded 1: weak; 0: strong.

Intention measured based on a person’s desire to choose to conduct early marriage behavior or not. The measurement scale
was continuous and transformed into dichotomous, coded 0: weak; 1: strong.

5. Data Analysis
Univariate analysis to describe in general each of the variables studied included early marriage, parent income, peer support, community culture, parent support, daughter status, attitude, subjective norm, PBC, and intention.

Bivariate analysis to explain the effect of one independent variable (parental income, peer support, community culture, parent support, subjective norms, perceived behavioral control and intentions) on one dependent variable which was early marriage.

Multivariate analysis to explain the effect of more than one independent variable, namely parents' income, peer support, community culture, parental support, daughter status, attitudes, subjective norm, perceived behavioral control and intentions towards early marriage. This study used path analysis with stata 13.

6. Study Ethic
This study was conducted based on study ethics, namely informed consent, anonymity, confidentiality, and ethical worthiness. Ethics permit in this study was obtained from the Ethics Commission of Dr. Moewardi Hospital, Surakarta, Indonesia, No.1.120/IX/HREC/2019.

RESULTS

1. Sample Characteristics
Continuous data sample descriptions described the continuous data on each study variable including child development, maternal age, family income and number of children. The results of the analysis of continuous data sample descriptions were shown in table 1.

Table 1. Description of characteristics of continuous data samples

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parents income (Rupiah)</td>
<td>200</td>
<td>2,499,750</td>
<td>14.59</td>
<td>1,000,000</td>
<td>5,000,000</td>
</tr>
<tr>
<td>Peer support</td>
<td>200</td>
<td>7.35</td>
<td>3.75</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>Society culture</td>
<td>200</td>
<td>8.14</td>
<td>4.05</td>
<td>1</td>
<td>16</td>
</tr>
<tr>
<td>Parents support</td>
<td>200</td>
<td>8.61</td>
<td>5.99</td>
<td>2</td>
<td>18</td>
</tr>
<tr>
<td>Daughter’s status</td>
<td>200</td>
<td>3.90</td>
<td>2.56</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Attitude</td>
<td>200</td>
<td>6.07</td>
<td>3.40</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>Subjective norm</td>
<td>200</td>
<td>5.22</td>
<td>3.11</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Perceived behavioral control</td>
<td>200</td>
<td>4.86</td>
<td>2.92</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Intention</td>
<td>200</td>
<td>4.39</td>
<td>2.88</td>
<td>1</td>
<td>9</td>
</tr>
</tbody>
</table>

2. Analisis Univariat
Table 2 showed the prevalence of women who have early marriages, namely age <20 years old by 125 people (62.5%) and women who did not engage in early marriage ≥ 20 years old by 75 people (37.5%). Low parents income were 121 people (60.5%) and high parents income were 79 people (39.5%). Low peer support was 129 people (64.5%) and high peer support was 71 people (35.5%). 72 people (36%) have weak early marriage culture and 128 people have strong early marriage cultures (64%).

Women who married at an early age with strong parent support for early marriage were 104 people (52%) and weak parent support for early marriage were 96 people (48%). The negative status of daughter was 105 people (52.5%) and positive status of daughters were 95 people (47.5%). Negative attitude was 125 people (62.5%) and positive attitude was 75 people (37.5%).

There were 93 women who married early and have weak perceived behavioral control (46.5%) and 107 people (53.5%) had
strong perceived behavioral control. Weak intentions were 94 people (47%) and strong intentions were 106 people (53%). Weak subjective norms were 87 (43.5%) and 113 people have strong subjective norm (56.5%).

Table 2. Description of the characteristics of the categorical data sample

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of Marriage</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not early marriage</td>
<td>75</td>
<td>37.5</td>
</tr>
<tr>
<td>Early marriage</td>
<td>125</td>
<td>62.5</td>
</tr>
<tr>
<td><strong>Family income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low (&lt; Rp. 1,650,000)</td>
<td>121</td>
<td>60.5</td>
</tr>
<tr>
<td>High (≥ Rp. 1,650,000)</td>
<td>79</td>
<td>39.5</td>
</tr>
<tr>
<td><strong>Peer Support</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>129</td>
<td>64.5</td>
</tr>
<tr>
<td>High</td>
<td>71</td>
<td>35.5</td>
</tr>
<tr>
<td><strong>Society Culture</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weak</td>
<td>72</td>
<td>36.0</td>
</tr>
<tr>
<td>Strong</td>
<td>128</td>
<td>64.0</td>
</tr>
<tr>
<td><strong>Family Support</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strong</td>
<td>104</td>
<td>52.0</td>
</tr>
<tr>
<td>Weak</td>
<td>96</td>
<td>48.0</td>
</tr>
<tr>
<td><strong>Daughter’s Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative</td>
<td>105</td>
<td>52.5</td>
</tr>
<tr>
<td>Positive</td>
<td>95</td>
<td>47.5</td>
</tr>
<tr>
<td><strong>Attitude</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative</td>
<td>125</td>
<td>62.5</td>
</tr>
<tr>
<td>Positive</td>
<td>75</td>
<td>37.5</td>
</tr>
<tr>
<td><strong>Perceived Behavioral Control</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weak</td>
<td>93</td>
<td>46.5</td>
</tr>
<tr>
<td>Strong</td>
<td>107</td>
<td>53.5</td>
</tr>
<tr>
<td><strong>Intention</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weak</td>
<td>94</td>
<td>47.0</td>
</tr>
<tr>
<td>Strong</td>
<td>106</td>
<td>53.0</td>
</tr>
<tr>
<td><strong>Subjective Norm</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weak</td>
<td>87</td>
<td>43.5</td>
</tr>
<tr>
<td>Strong</td>
<td>113</td>
<td>56.5</td>
</tr>
</tbody>
</table>

3. Path Analysis
Multivariate analysts explained the effect of more than one independent variable, namely parents’ income, peer support, community culture, parent support, daughter status, attitudes, subjective norms, perceived control of behavior and intention. The dependent variable was early marriage which was analyzed by using path analysis. The results of the path analysis were described in Figure 1.

Figure 1 showed the suitability of the structural model that has been estimated with the Stata MP 13 software and obtained values according to the figure. Parameter efficiency showed a causal relationship. This relationship was shown by the existence of a path coefficient (b) that has not been standardized. Unstandardized path coefficients indicated the relationship of endogenous and exogenous variables in the original unit of measurement. The following is table 3 results from path analysis through path coefficient values that have not been standardized.
Table 3 showed that early marriage behavior was directly and positively influenced by strong intentions for early marriage \( (b=2.06; 95\% \text{ CI}=3.00 \text{ to } 1.13; p<0.001) \), and low family income \( (<Rp 1,650,000) \) \( (b=1.83; 95\% \text{ CI}=2.68 \text{ to } 0.98; p<0.001) \).

**Table 3. Results from path analysis on the effect of early marriage**

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Independent Variables</th>
<th>Path Coefficient ( (b) )</th>
<th>CI 95% Lower Limit</th>
<th>CI 95% Upper Limit</th>
<th>( p )</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Direct Effect</strong></td>
<td>Early marriage</td>
<td>Daughter’s status</td>
<td>-1.71</td>
<td>-2.61</td>
<td>-0.80</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Intention (strong)</td>
<td>2.06</td>
<td>3.00</td>
<td>1.13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Peer support (high)</td>
<td>-2.08</td>
<td>-2.98</td>
<td>-1.19</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Family income (high)</td>
<td>-1.83</td>
<td>-2.68</td>
<td>-0.98</td>
</tr>
<tr>
<td><strong>Indirect Effect</strong></td>
<td>Attitude (negative)</td>
<td>Social culture (strong)</td>
<td>-1.01</td>
<td>-1.61</td>
<td>-0.41</td>
</tr>
<tr>
<td></td>
<td>Intention (strong)</td>
<td>Parents support (strong)</td>
<td>1.03</td>
<td>0.34</td>
<td>1.72</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Attitude (negative)</td>
<td>0.98</td>
<td>0.31</td>
<td>1.66</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PBC (weak)</td>
<td>0.99</td>
<td>0.29</td>
<td>1.68</td>
</tr>
<tr>
<td></td>
<td>Parent support (strong)</td>
<td>Subjective norm (weak)</td>
<td>1.15</td>
<td>0.57</td>
<td>1.74</td>
</tr>
</tbody>
</table>

Early marriage was directly and negatively affected by weak status of daughters \( (b = -1.71; 95\% \text{ CI} = -2.61 \text{ to } -0.80; p <0.001) \), and strong peer support to not do early marriage \( (b = -2.08; 95\% \text{ CI} = -2.98 \text{ to } -1.19; p <0.001) \).
Early marriage was indirectly influenced by attitudes of young women through community culture, intention through parental support, intention through attitude, intentions through perceived behavioral control, parents support through subjective norms.

**DISCUSSION**

1. The Effect of Daughter’s Status on Early Marriage

Daughter status was significantly related to early marriage. The negative status of daughter increased the likelihood of early marriage by 1.71 units higher than positive status of daughter.

A study by Munawara et al. (2015) stated that girls in the household were still sidelined. They did not have freedom in education or employment. Girls were only considered capable of working at home and did not have a stake in helping the family economy, so it did not require high education because the duty of girls was to take care of the household. So that parents prefer to immediately ask their children to get married rather than providing a high education to them.

A study by Lesson et al. (2017) stated that in India, many girls are undesirable because this girl is considered not more valuable than a boy. Many daughters were considered to burden their families so that they ask their children to get married while they were still young. Besides the lack of education and employment for women in India, it can increase the desire of parents to ask their children to get married in an early age.

2. The Effect of Intention on Early Marriage

Intention has a significant effect on early marriage. Intention has a significant relationship to early marriage behavior. Strong young women’s intentions increased the likelihood of having early marriages by 2.06 units lower than young women with weak intentions.

A study Mpilambo et al. (2017) in the Dominican Republic Republic of Congo showed that many teenagers want to get married at an early age due to social, emotional and sexual needs. They see that by marrying at an early age, they can achieve independence and social identity, in addition, they considered that marriage was able to bring them respect, peace of love and have the authority to make decisions.

3. The Effect of Peer Support on Early Marriage

Peer support has a significant influence on early marriage behavior. Young women with high peer support increased the likelihood of having early marriages by 2.08 units lower than young women with weak peer support.

A study by Sekar et al. (2019) stated that early marriage has a meaningful relationship with peers. Adolescents who have peers who do early marriage were 4.02 times more likely for early marriage. This was because many of their peers chose to have a girlfriend and have early marriage and sex before marriage. So that adolescents were more likely to follow their peers so that people would not make fun of them.

A study by Wardhani et al. (2017) stated that sexual behavior before marriage has a significant relationship with peers. This means that peers have an effect on sexual behavior before marriage in adolescents.

Peers were also able to have a positive impact on the lives of adolescents. The existence of strong support from peers can reduce early marriage behavior. A study by Tarmidi et al. (2018) stated that peer empowerment in an effort to prevent early marriage can be effectively carried out by using a participatory model or Participatory...
Rurl Apraissal (PRA). This was intended to increase adolescent knowledge and understanding about preventing early marriage through peer empowerment.

4. The Effect of Family Income on Early Marriage
Parents income has a significant effect on early marriage behavior. Young women who have high income families increase the possibility of having an early marriage by 1.83 units lower than young women who have low-income parents.

Kumaidi et al. (2015) stated that young women who have parents with low incomes which were below the minimum wage (<Rp 1,650,000), usually would encourage their children to get married early. This was because if their children get married, it would be borne by her husband. In addition, adolescents who have low income families did not have the option to continue their education to a higher level because they cannot afford. Conversely, adolescents who have parents with high incomes above the minimum wage (Rp. 1,650,000) would be able to pay the cost of living and provide high education so they did not engage in early marriage.

A study by Ahonsi et al. (2019) stated that girls in Ghana with low income families were more likely to get married at an early age and mention that poverty was an indication of someone to have an early marriage.

5. The Effect of Society Culture on Early Marriage
There was a significant relationship between early marriage through community culture on attitudes. Young women who have a strong early marriage culture increase the possibility of having an early marriage by 1.01 units lower than young women who have a weak early marriage culture.

Factors that influenced the attitudes of young women to decide to marry at an early age were actually influenced by the environment, myths in society, and culture that can influence the occurrence of early marriage. The culture of society to get married early affected the attitudes of adolescents because adolescents would assume that women would eventually become housewives, take care of their children and husbands and was a worship for women, therefore, young women would assume that the sooner to get married, the better (Nurlaela, 2019).

A study by Arthur et al. (2017) stated that a person's attitude is not influenced by the culture of the community. This was due to the different attitude of the people in each region so that the location of an area also influenced a person's attitude in conducting early marital behavior.

6. The Effect of Family Support on Intention
There was a significant relationship between early marriage behavior through parental support on intention. Young women who have strong parental support increase the likelihood of having a strong intention to have early marriage by 1.03 units higher than weak parental support.

A study by Subekti et al. (2014) stated that parents play a role in encouraging their children to get married early, this was due to economic problems, low religious understanding, and the existence of a culture of marriage at a young age. This caused a child to have a strong intention to have an early marriage.

A study by Susan et al. (2017) mentioned that in Africa, precisely in rural Tanzania, early marriage occurred because of strong parental support for their children to engage in early marriage. This was because it can give benefit for parents in the economic aspect.

Halawani (2017) stated that young
women who have parents who played a role in decision making have a risk of 2.12 times more likely to engage in early marriage than young women whose parents have no role in making decisions.

Early marriage can also be caused by the harmony of parents. Teenagers who have a family that was not harmonious tend to engage in promiscuity such as having sex before marriage, causing premature marriage. This was supported by Wardhani et al. (2017), which stated that free sex performed by adolescents was related to harmony owned by the family. This mean that adolescents who have families that were not harmonious tend to prefer to have free sex.

7. The Effect of Attitude on Intention
According to Sugma et al. (2018), attitudes are determined by someone’s beliefs about the consequences of both positive and negative behavior which were carried out with an individual subjective assessment of each consequence in conducting the behavior.

Attitude is someone’s readiness to take certain actions that can be positive or negative. Kumaidi et al. (2015) stated that attitudes have a relationship to intentions for early marriage. Young women who have a negative attitude towards early marriage were usually due to a lack of knowledge about the effects that would happen from early marriage. This immature attitude can cause young women to feel compelled to have the intention to engage in early marriage behavior. Conversely, young women who have a positive attitude would know the impact of early marriage, for example, endangering health so they do not have the intention to do early marriage.

Negative attitudes that can improve early marital behavior was having sex before marriage. Halawani (2017) stated that as a result of promiscuity, it can lead to premarital pregnancy for adolescents and this can trigger marriages in adolescence.

8. The Effect of Family Support on Intention
There was a significant relationship between early marriage through perceived behavioral control on intention. Young women with weak perceived behavioral control increase the likelihood of having strong intentions for early marriage by 0.99 units higher than those with weak perceived behavioral control.

Anisa et al. (2015) stated that behavioral control can indicate that a person’s intentions can be influenced by oneself about someone seeing difficulties or ease to show a certain behavior. If someone has a strong belief in controlling behavior, then someone has a high perceived behavioral control. This study showed that behavioral control has an impact on the intention to perform a behavior such as early marriage.

A study in Iran showed that perceived behavioral control can influence someone in conducting a behavior. If there was a decision for marriage. Decision making was an important thing for someone to have proper education and work so he/she has a high chance of being able to control his/her behavior (Mariyatul, 2014).

9. The Effect of Subjective Norm on Parents Support
There was a positive relationship between early marriage through subjective norms on parental support. Young women with weak subjective norms increase the likelihood of having strong parent support for early marriage by 1.15 units higher than those with strong subjective norms.

Subjective norm is person’s assumption in the face of a social pressure to choose whether or not to take an action by considering normative decision making (Sulaeman, 2016).

Anisa (2015) stated that if a teenager has strong subjective norms, the less support of parents to marry their children.
under the age of 20 years old. Conversely, if a teenager has strong subjective norms, they can get strong parent support so he/she can avoid early marriage.

**AUTHOR CONTRIBUTION**
Wella Anggraini as the main researcher has roles to carry out the study, collect study data, formulate study articles, and process the data. Pawito played a role in the formulation of the framework of thinking in study. Eti Poncorini played a role in the formulation of study methods and discussion of study results.

**FUNDING AND SPONSORSHIP**
There was no external funding.

**CONFLICT OF INTEREST**
There was no conflict of interest in this study.

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