

## The Influence of Social Support, Self-Esteem, and Optimism on Resilience of High School Students During the Covid-19 Pandemic

Sindi Pratika Sari<sup>1</sup>, Alfiasari<sup>1\*</sup>

<sup>1</sup>Department of Family and Consumer Sciences, Faculty of Human Ecology, IPB University, Jl. Kamper, IPB Dramaga Campus, Bogor, West Java 16880, Indonesia

\*) Corresponding author: alfiasari@apps.ipb.ac.id

### Abstract

Resilience is an important thing that adolescents should have in dealing with changes during the Covid-19 pandemic. The purpose of this study is to analyze the influence of social support, self-esteem, and optimism on high school student resilience during the Covid-19 pandemic. The research design used is explanatory with voluntary sampling techniques and involves 193 high school students in the Kebumen regency, data analysis was performed using descriptive and inferential analysis used SPSS and Microsoft Excel. The results showed that children get the highest social support from parents and the lowest from teachers. In addition, the largest proportion of students have moderate self-esteem and resilience. However, the largest proportion for optimism is in a low category. The results also showed a very significant positive relationship between social support, self-esteem, and optimism with high school students' resilience. The other result also shows that high school students' resilience during the Covid-19 pandemic was directly affected by self-esteem and optimism. Variables of social support, self-esteem, optimism, adolescent and family characteristics are important aspects in improving the resilience of high school students during the Covid-19 pandemic.

Keywords: high school student, optimism, resilience, self-esteem, social support

### Abstrak

Resiliensi menjadi hal penting yang harus dimiliki remaja dalam menghadapi perubahan selama pandemi Covid-19. Tujuan penelitian ini untuk menganalisis pengaruh dukungan sosial, *self-esteem*, dan optimisme terhadap resiliensi pelajar SMA selama pandemi Covid-19. Desain penelitian yang digunakan ialah *explanatory* dengan teknik *voluntary sampling* dan melibatkan 193 pelajar SMA di wilayah Kabupaten Kebumen, analisis data dilakukan dengan menggunakan analisis deskriptif dan inferensial menggunakan SPSS dan Microsoft Excel. Hasil penelitian menunjukkan bahwa anak mendapatkan dukungan sosial tertinggi dari orang tua dan terendah dari guru. Selain itu, proporsi terbesar pelajar memiliki *self-esteem* dan resiliensi yang sedang. Namun, proporsi terbesar untuk optimisme adalah pada kategori rendah. Hasil penelitian juga menunjukkan adanya hubungan positif sangat signifikan antara dukungan sosial, *self-esteem*, dan optimisme dengan resiliensi pelajar SMA. Uji hipotesis menggunakan *smartPLS* secara konsisten menemukan resiliensi pelajar SMA selama pandemi Covid-19 dipengaruhi langsung *self-esteem* dan optimisme. Variabel dukungan sosial, *self-esteem*, optimisme, karakteristik remaja dan keluarga menjadi aspek penting dalam meningkatkan kemampuan resiliensi pada pelajar SMA selama masa pandemi Covid-19.

Kata kunci: dukungan sosial, optimisme, pelajar sma, resiliensi, *self-esteem*

## Introduction

The increase in confirmed Covid-19 cases as of December in Kebumen Regency has reached 25.40 percent (Central Java Health Office, 2020). Social activity restrictions also impact the implementation of the school learning system. The transition to online learning is expected to be an alternative solution for students to continue accessing education during the pandemic. This condition requires students to adapt and develop into more resilient individuals. However, the online learning process has received various responses from all parties, especially students and parents. Many have experienced academic stress, excessive anxiety, and even depression. This is in line with Wayana et al. (2020) who found that the implementation of online learning systems disrupted students' psychology, causing stress and an inability to follow lessons well. Budiayati and Oktavianto (2020) stated that adolescents need resilience to overcome stress due to online learning during the Covid-19 pandemic. The pandemic situation is difficult to face and requires a lot of adaptation from students. Therefore, resilience and the factors affecting it need further investigation.

According to Brackenreed (2010), individual resilience is influenced by both internal and external factors. One internal factor affecting resilience is self-esteem (Herrmann et al., 2011). Research by Sholichah et al. (2018) strengthens that self-esteem is positively related to individual resilience. High self-esteem helps students recognize and evaluate themselves better to face challenges and obstacles during online learning in the Covid-19 pandemic. In addition to self-esteem, Lee et al. (2013) revealed that resilience in individuals can be developed through optimism. Optimism helps students form positive beliefs to overcome difficulties faced during the Covid-19 pandemic. Pessimistic students tend to feel more defeated as they struggle to overcome problems faced during the pandemic.

Moreover, external factors also significantly impact individual resilience, such as social support (Brackenreed, 2010). Social support involves all aspects related to concern and the availability of assistance from others or groups (Sarafino and Smith, 2011). Social support can come from family, peers, and teachers (Gordon et al., 2015). Smestha (2015) stated that good social support helps former drug addicts become more resilient and able to face difficult situations. This study was conducted in Kebumen Regency due to the lack of similar research in the area. The results are expected to help stakeholders, especially in the education sector in Kebumen Regency, develop programs to enhance high school students' resilience during the Covid-19 pandemic.

Based on the outlined background, this study aims to 1) identify the characteristics of adolescents, families, social support, self-esteem, optimism, and resilience of high school students in Kebumen Regency, 2) analyze the relationships and influences among variables.

## Methods

### Participants

This study uses a quantitative research approach with an explanatory research design. The research was conducted during the Covid-19 pandemic in the Kebumen Regency area. The distribution of questionnaires was carried out online in three research locations recommended by the Education Office of Region IX, Central Java Province, namely: SMAN 1 Kutowinangun, SMAN 1 Prembun, and SMAN 1 Mirit. The research

period, including data collection, processing, and analysis, was from May to August 2021. The sampling technique used was non-probability sampling with voluntary sampling techniques. Data collection was conducted independently through self-administered online questionnaires using the Google Form platform. The respondents of this study were high school students from the three selected schools who were willing to fill out the questionnaire. Initially, 202 students filled out the questionnaire, and after the cleaning process, 193 respondents' data were used for analysis.

### **Measurement**

Social support is the perception or viewpoint of adolescents regarding the social support provided by others within their social network. Social support in this study comes from parents, teachers, and peers. The measurement of the social support variable uses the Social Support Questionnaire for Children (SSQC) developed by Gordon et al. (2015), consisting of three dimensions: parents, teachers, and peers. Overall, this instrument has a Cronbach's alpha value of 0.88. The response scale used is a Likert scale of 1-4 with the following options: 1 = almost never, 2 = sometimes, 3 = often, and 4 = always.

Self-esteem is the positive self-assessment carried out by adolescents based on the appreciation and acceptance of others and their social environment. The measurement of the self-esteem variable uses the Adolescent Self-Esteem Questionnaire (ASQ) developed by Hafekost et al. (2017) with a Cronbach's alpha value of 0.73. The response scale used is a Likert scale of 1-5 with the following options: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree.

Optimism is an individual's tendency towards positive expectations and beliefs about the future. The optimism variable uses the Life Orientation Test-Revised (LOT-R) developed by Scheier et al. (1994). This instrument has a Cronbach's alpha coefficient value of 0.65. Resilience is measured using the Resilience Scale (CD-RISC) developed by Wagnild and Young (1993) with a Cronbach's alpha coefficient value of 0.80. The response scale used is a Likert scale of 1-4 with the following options: 1 = strongly disagree, 2 = disagree, 3 = agree, and 4 = strongly agree.

### **Analysis**

Data were processed using Microsoft Office Excel, Statistical Package for Social Science (SPSS) for Windows, and Smart-PLS 3.0. The standardization of variables (social support, self-esteem, optimism, and resilience) was formulated into an index value of 0-100. Data obtained from these variables were categorized into cut-off points with the following criteria: (1) low: 0-60, (2) moderate: >60-80, and (3) high: >80-100. Data analysis included descriptive analysis to view the distribution of respondents' answers and inferential analysis to analyze the correlation between variables and the influence of social support, self-esteem, and optimism on high school students' resilience.

## **Findings**

### **Adolescent Characteristics**

The adolescent characteristics in this study include age, gender, and birth order. The results show that the largest percentage of respondents by age is 51.8 percent, with high school students aged 16 years old, with an average age of 15.89 years and a standard deviation of 0.75 years. Additionally, the majority of respondents by gender are female

(77.2%). Regarding birth order characteristics, respondents range from the 1st to the 12th birth order.

### Family Characteristics

The results indicate that the average age of fathers is 48.21 years, and the average age of mothers is 44.46 years. Interestingly, based on the latest education level completed, the majority of both fathers (38.9%) and mothers (34.2%) have completed high school or its equivalent. Regarding family income characteristics, half of the respondents' families (51.8%) earn less than IDR 1,000,000. The largest proportion of respondents based on family size according to BKKBN (2005) is small families (4-5 people) at 43.5 percent.

### Social Support

The results show that 76.2 percent of students receive high social support from their parents during the Covid-19 pandemic, with an average of 92.00. In contrast, social support from teachers to high school students is categorized as low, with a percentage of 56.5 percent and an average of 58.76. This also applies to social support from peers during the Covid-19 pandemic, which is categorized as low, with a percentage of 50.3 percent and an average of 60.07. Overall, social support given to high school students is in the moderate category (40.9%) with an average of 70.28 (Table 1).

Table 1. Minimum, maximum, average, standard deviation and subject distribution of social support variables

| Variable dimension | Category |      |        |      |      |      | Min-max | Mean±SD     |
|--------------------|----------|------|--------|------|------|------|---------|-------------|
|                    | Low      |      | Medium |      | High |      |         |             |
|                    | n        | %    | n      | %    | n    | %    |         |             |
| Parents            | 18       | 9.3  | 28     | 14.5 | 147  | 76.2 | 40-123  | 92.00±19.04 |
| Peer               | 97       | 50.3 | 54     | 28.0 | 42   | 21.8 | 0-100   | 60.07±25.15 |
| Teacher            | 109      | 56.5 | 46     | 23.8 | 38   | 19.7 | 0-100   | 58.76±23.76 |
| Social support     | 58       | 30.1 | 79     | 40.9 | 56   | 29.0 | 13-107  | 70.28±19.00 |

Note: SD=standard deviation

### Self-Esteem

The findings on self-esteem show that high school students during the Covid-19 pandemic have moderate self-esteem (54.9%) with an average of 63.95 and a standard deviation of 11.77. The distribution analysis indicates that high school students' self-esteem during the Covid-19 pandemic is good, but there is still a possibility of feelings of self-doubt and uncertainty about themselves. The high self-esteem category among high school students has the smallest percentage of 7.8 percent. This is based on the distribution of answers that only a small portion of high school students have been able to accept themselves, feel confident in their abilities, and have control over their lives. The rest of the high school students have low self-esteem (37.3%). High school students with low self-esteem tend to feel unworthy of happiness and appreciation during the Covid-19 pandemic.

### Optimism

According to Scheier et al. (1994), optimism is an individual's tendency towards positive expectations about the future. Table 2 shows that high school students during the Covid-19 pandemic have low optimism levels (61.1%) with an average of 59.50 and a standard deviation of 8.964. This is based on the distribution analysis indicating that

highest school students tend to feel uncertain about their future, find it difficult to calm down in difficult situations, have trouble socializing with friends during the Covid-19 pandemic, and consider failure as the end of life. The smallest percentage of high school students' optimism is in the high category (5%). This indicates that only one high school student has high optimism, demonstrated by active responses, high enthusiasm, the ability to socialize, and understanding that failure is not the end of life. About 38.3% fall into the moderate category, indicating that high school students with moderate optimism tend to feel comfortable with their peers, have the ability to calm themselves, and tend to control their emotions when angry during the Covid-19 pandemic.

Table 2. Distribution of respondents based on minimum value, maximum value, average and standard deviation of self-esteem and optimism

| Variable dimension | Category |      |        |      |      |     | Min-max | Mean±SD      |
|--------------------|----------|------|--------|------|------|-----|---------|--------------|
|                    | Low      |      | Medium |      | High |     |         |              |
|                    | n        | %    | n      | %    | n    | %   |         |              |
| Self-esteem        | 72       | 37.3 | 106    | 54.9 | 15   | 7.8 | 33-92   | 63.95±11.775 |
| Optimism           | 118      | 61.1 | 74     | 38.3 | 1    | 5   | 33-83   | 59.50±8.964  |

### Resilience

Resilience is the ability of individuals to adapt dynamically and positively when faced with difficult events (Masten & Reed 2002). According to the research results (Table 2), high school students during the Covid-19 pandemic have moderate resilience (74.1%) with an average of 68.18 and a standard deviation of 9.11. The research results show that the self-competence factor of high school students is in the moderate category (67.9%). This also applies to the self-acceptance factor of high school students, which is in the moderate category (71%). This is based on the distribution analysis indicating that high school students are good at staying calm in resolving issues, overcoming current problems rather than worrying about the future, finding meaning in life, and finding reasons to stay happy in facing difficult situations during the Covid-19 pandemic. Although categorized as moderate, both factors have different averages. The average self-competence factor (67.54) is higher than the average self-acceptance factor (68.83) (Table 3).

Table 3. Minimum, maximum, mean, standard deviation and subject distribution of resilience variables

| Variable dimension | Category |      |        |      |      |      | Min-max | Mean±SD     |
|--------------------|----------|------|--------|------|------|------|---------|-------------|
|                    | Low      |      | Medium |      | High |      |         |             |
|                    | n        | %    | n      | %    | n    | %    |         |             |
| Self-competence    | 42       | 21.8 | 131    | 67.9 | 20   | 10.4 | 43-100  | 67.54±10.52 |
| Self-acceptance    | 31       | 16.1 | 137    | 71   | 25   | 13   | 33-100  | 68.83±10.37 |
| Resilience         | 31       | 16.1 | 143    | 74.1 | 19   | 9.8  | 46-100  | 68.18±9.11  |

### The Relationship between Social Support, Self-Esteem, and Optimism for Adolescent Resilience

The research results based on the correlation test in Table 3 show that there is a highly significant positive relationship between the variables of social support, self-esteem, and optimism with high school students' resilience ( $\alpha < 0.01$ ). This means that the higher the social support provided by parents, teachers, and peers to high school students; the higher the students' self-esteem and optimism, which is significantly related to the

higher resilience of high school students during the Covid-19 pandemic. Social support and self-esteem are also highly significantly positively related to optimism ( $\alpha < 0.01$ ). This means that if the social support provided is good and the self-esteem of high school students is good, then the optimism of high school students in this study will be higher. Furthermore, the variables of social support, self-esteem, and optimism are significantly related to the dimensions of high school students' resilience, namely self-acceptance and self-competence ( $\alpha < 0.01$ ).

Meanwhile, family size characteristics have a highly significant positive relationship with the family social support variable ( $\alpha < 0.01$ ). Another research finding shows that the length of education of the father ( $\alpha < 0.01$ ) and the education of the mother ( $\alpha < 0.05$ ) have a negative relationship with the self-acceptance resilience of high school students during the Covid-19 pandemic. The higher the education level of the father and mother, the lower the self-acceptance level of high school students in facing difficult situations during the Covid-19 pandemic. The mother's age has a significantly negative relationship with the social support provided by peers to high school students ( $\alpha < 0.05$ ). In addition, gender has a significantly negative relationship with the optimism of high school students ( $\alpha < 0.05$ ). This means that male high school students tend to have better optimism compared to female students (Table 3).

Tabel 4. Correlation coefficients between adolescent characteristics, family characteristics, social support, self-esteem, optimism on resilience

| Variable                        | SS      |         |         |        | SE      | OPT     | RES     |         |         |
|---------------------------------|---------|---------|---------|--------|---------|---------|---------|---------|---------|
|                                 | P       | PER     | T       | Sum    |         |         | SC      | SA      | Sum     |
| Adolescent Characteristics      |         |         |         |        |         |         |         |         |         |
| Age (years)                     | -0,013  | 0,010   | -0,068  | -0,028 | -0,097  | -0,093  | -0,034  | -0,089  | -0,071  |
| Gender<br>(0=Male,<br>1=female) | 0,036   | 0,118   | 0,020   | 0,072  | -0,083  | -0,159* | 0,004   | 0,049   | -0,030  |
| Family Characteristics          |         |         |         |        |         |         |         |         |         |
| Father's age                    | -0,002  | -0,043  | -0,013  | -0,025 | -0,033  | -0,118  | -0,104  | 0,017   | -0,050  |
| Father's education              | 0,006   | -0,043  | -0,076  | -0,052 | 0,043   | 0,029   | -0,040  | 0,205** | -0,140  |
| Mother's age                    | -0,037  | -0,145* | -0,106  | -0,121 | -0,054  | -0,023  | -0,022  | 0,040   | -0,010  |
| Mother's education              | 0,073   | -0,041  | -0,015  | -0,081 | 0,047   | 0,106   | -0,027  | -0,181* | -0,088  |
| Family income                   | 0,076   | -0,081  | -0,009  | -0,014 | 0,044   | 0,042   | 0,060   | -0,068  | 0,013   |
| Family size                     | 0,305** | 0,108   | 0,138   | 0,207* | 0,099   | 0,113   | 0,102   | -0,064  | 0,096   |
| Social Support                  |         |         |         |        | 0,370** | 0,389** | 0,252** | 0,238** | 0,281** |
| Self-Esteem                     | 0,366** | 0,278** | 0,300** |        |         | 0,515** | 0,609** | 0,310** | 0,586** |
| Optimism                        | 0,366** | 0,316** | 0,329** |        |         |         | 0,558** | 0,280** | 0,543** |
| Resilience                      | 0,238** | 0,212** | 0,259** |        |         |         |         |         |         |

Note: \*significant at  $p < 0,05$ , \*\*significant at  $p < 0,01$ ; SS (Social Support): P (Parents), T (Teachers), PER (Peers); SE (Self-Esteem); OPT (Optimism); RES (Resilience): SC (Self-Competence), SA (Self-Acceptance)

**The Influence of Social Support, Self-Esteem, and Optimism on Adolescent Resilience**

The outer model analysis aims to determine the feasibility of a measurement (whether the model is reliable and valid) through several indicators, including composite reliability and average variance extracted (AVE) (Megawati, 2021). AVE values are determined by looking at the factor loading values on each statement (factor loading >0.7). Low AVE values (factor loading <0.7) are unacceptable and must be eliminated from the statements. However, in developmental research, a factor loading value of 0.60 is still acceptable. The outer model analysis results showed factor loading values <0.7 on some self-esteem, optimism, and resilience items, which were then eliminated (Figure 1).

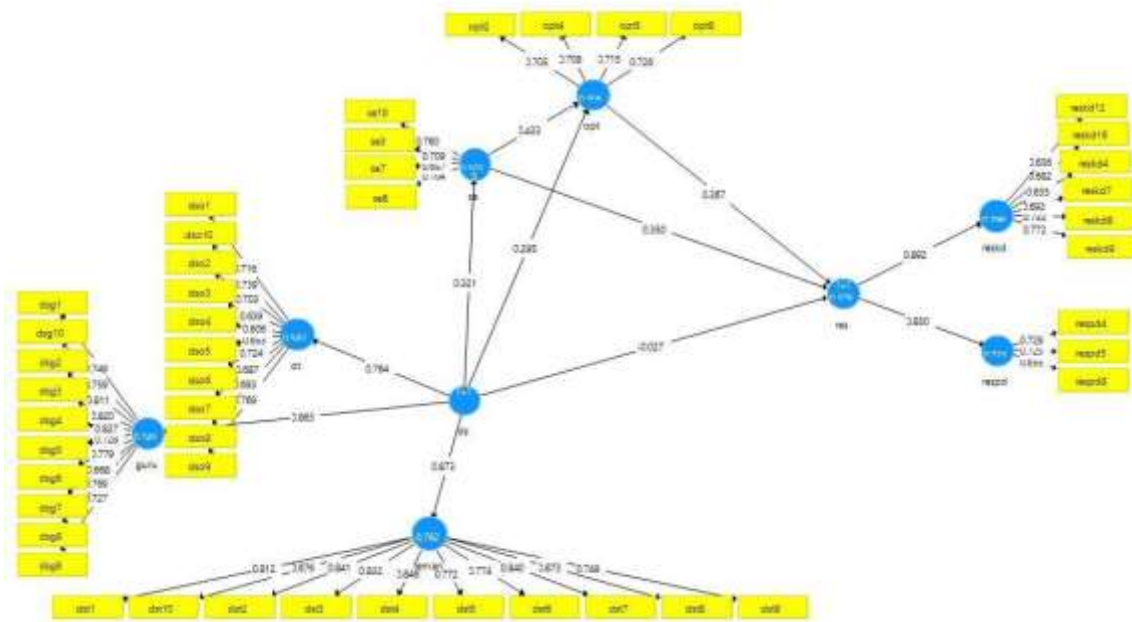


Figure 1. Initial outer model results

After eliminating statements on self-esteem, optimism, and resilience variables, the results showed that all research variables had factor loading values >0.7. This means all statements meet the standard with factor loading values >0.7 (Figure 6). Next, a variable is considered valid if it has an AVE value  $\geq 0.50$  and reliable if it has a composite reliability value  $\geq 0.70$  (Table 5). According to Table 5, all statements on social support, self-esteem, optimism, and resilience variables are declared valid and reliable (AVE value  $\geq 0.50$  and composite reliability  $\geq 0.70$ ).

Table 5. Results of composite reliability and AVE values

| Latent variable | Composite reliability | AVE   |
|-----------------|-----------------------|-------|
| Social support  | 0.936                 | 0.620 |
| Self-esteem     | 0.811                 | 0.588 |
| Optimism        | 0.806                 | 0.581 |
| Resilience      | 0.814                 | 0.593 |

Inner model analysis aims to assess the accuracy of a structural model using several indicators, including predictive relevance, Goodness of Fit (GoF), and the coefficient of determination ( $R^2$ ) (Megawati, 2021). Hypothesis testing is then carried out by making decisions based on probability values and t-statistics. The analysis results

showed adjusted R square values as an evaluation of the goodness of fit, indicating the feasibility of a model (Table 6). The social support variable has an adjusted R square value of 0.560, meaning that the variability of the social support construct can be explained by the dimensions of parents, peers, and teachers by 56 percent.

Table 6. Hasil analisis inner model

| Latent variable | R Square | Adjusted r square |
|-----------------|----------|-------------------|
| Social support  | 0.555    | 0.560             |
| Self-esteem     | 0.051    | 0.046             |
| Optimism        | 0.254    | 0.246             |
| Resilience      | 0.320    | 0.309             |

The self-esteem variable has an adjusted R square value of 0.046, indicating that the variability of the self-esteem construct can be explained by the social support variable by 4.6 percent, with the rest influenced by other variables not studied. Furthermore, the optimism variable has an adjusted R square value of 0.246, meaning that the variability of the optimism construct can be explained by the variability of self-esteem and social support by 24.6 percent, with the rest influenced by other variables not studied. The resilience variable has an adjusted R square value of 0.309, indicating that the variability of the resilience construct can be explained by social support, self-esteem, and optimism by 30.9 percent, with the rest influenced by other variables outside the study (Table 6).

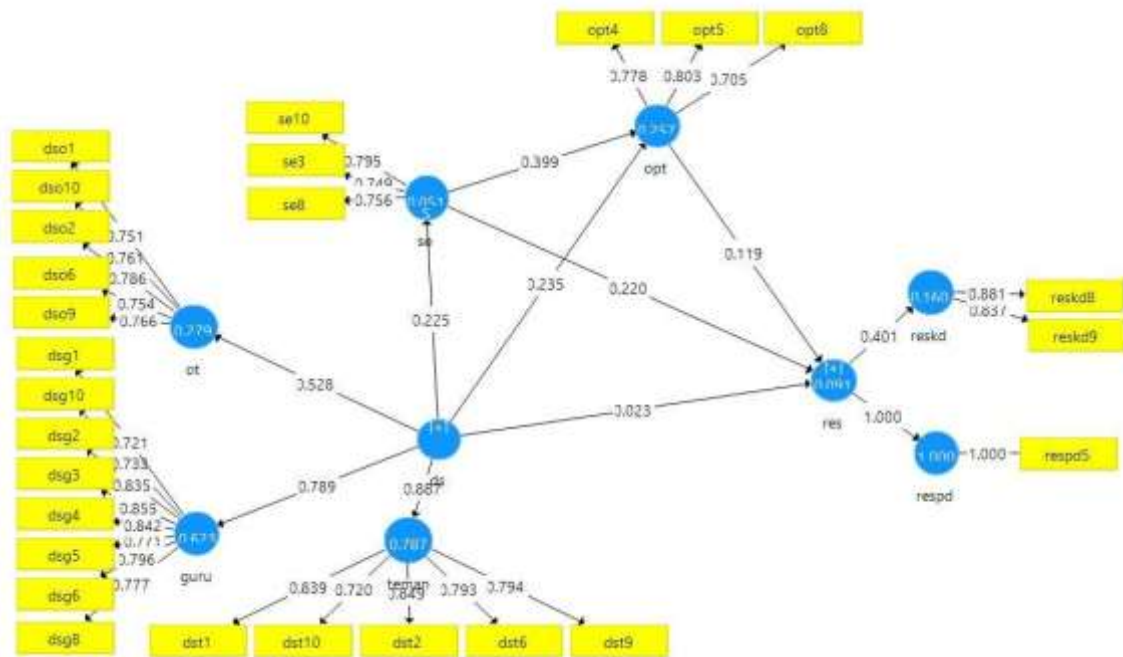


Figure 2. Final outer model results

SEM analysis results on social support, self-esteem, and optimism towards high school students' resilience show that self-esteem and optimism variables have a direct significant effect on high school students' resilience during the Covid-19 pandemic. This indicates that high school students with high self-esteem and optimistic attitudes will increase their resilience in facing difficult events and conditions during the Covid-19 pandemic. Additionally, parental social support has a direct significant effect on high school students' self-esteem during the Covid-19 pandemic ( $\beta=0.258$ ;  $t$ -statistic $>1.96$ ).



This means that good social support from parents will enhance high school students' self-esteem in facing difficult situations during the Covid-19 pandemic. Self-esteem has a direct significant effect on high school students' optimism ( $\beta=0.507$ ;  $t\text{-statistic}>1.96$ ). This means that high school students' good self-esteem will enhance their optimism during the Covid-19 pandemic. Another finding shows that parental social support indirectly affects optimism ( $\beta=0.131$ ;  $t\text{-statistic}>1.96$ ) and high school students' resilience ( $\beta=0.110$ ;  $t\text{-statistic}>1.96$ ) in facing difficult situations during the Covid-19 pandemic. This means that good social support from parents will indirectly increase high school students' optimism and resilience (Table 7).

Furthermore, social support indirectly influences resilience ( $\beta=0.071$ ;  $t\text{-statistic}=2.499$ ) among high school students during the Covid-19 pandemic through the variable of optimism. This means that higher levels of social support from parents, friends, and teachers to high school students will indirectly enhance the resilience of high school students. Self-esteem also has an indirect effect on the resilience ( $\beta=0.126$ ;  $t\text{-statistic}=3.515$ ) of high school students through the variable of optimism. This implies that higher self-esteem among high school students in facing difficult events during the Covid-19 pandemic will indirectly enhance the resilience of high school students (Table 7).

Table 7. Final model of the influence of social support, self-esteem, optimism on student resilience

| Variable   | Direct effect | Indirect effect | Total  |
|--|---------------|-----------------|--------|
| Social support:                                    |               |                 |        |
| Parents → Resilience                               | -0.088        | 0.237           | -0.149 |
| Teachers → Resilience                              | 0.007         | 0.136           | 0.143  |
| Peers → Resilience                                 | -0.082        | 0.139           | -0.057 |
| Self-Esteem → Resilience                           | 0.426*        | 0.255           | 0.681  |
| Self-Esteem → Optimism                             | 0.507*        | -               | 0.507  |
| Optimism → Resilience                              | 0.503*        | -               | 0.503  |
| Parental social support → Self-Esteem              | 0.258*        | -               | 0.258  |
| Parental social support → Self Esteem → Optimism   | 0.252         | 0.131*          | 0.383  |
| Parental social support → Self Esteem → Resilience | 0.148         | 0.110*          | 0.258  |

Note: \*significant  $t\text{-test}> 1,96$ ;  $p\text{-value}<0,05$

## Discussion

This study involved 193 adolescents in the Kebumen Regency area with an average age of 15.89 years, and the majority of respondents were female. Other results showed that the average age of the respondents' fathers was 48.21 years, and the mothers were 44.46 years. Interestingly, based on the latest education level completed, most respondents' parents completed high school (SMA). Family income showed that half of the respondents' families earned less than <IDR 1,000,000.

Resilience in students is a crucial factor in adapting and facing difficult situations during the Covid-19 pandemic. Khomsan et al. (2018) stated that resilience acts as a support tool for students to be prepared for challenging situations and conditions due to the Covid-19 pandemic. The study results showed that high school students' resilience was in the moderate category (74.1%). This means resilient high school students tend to be able to overcome and respond positively to difficult events during the Covid-19

pandemic. Students with good overall resilience can withstand and face their problems by engaging in positive activities as a means of emotional regulation (Ester et al., 2020). In contrast, students with low resilience are at a higher risk of experiencing anxiety and depressive symptoms (Hjemdal et al., 2011).

Resilience is influenced by two factors: internal and external (Brackenreed, 2010). The internal factor is self-esteem (Herrmann et al., 2011). The study results showed that students' self-esteem during the Covid-19 pandemic was in the moderate category. This means students tend to enjoy every event happening to them and can find sources of happiness within themselves (Branden, 1985). Another internal factor affecting adolescent resilience is optimism (Lee et al., 2013). The study results showed that students' optimism levels were in the low category. This means that when students face a difficult situation, they are less able to think positively to overcome problems faced during the Covid-19 pandemic (Sidabalok et al., 2019). This statement contradicts Nuzuliya's (2021) research, which found that the optimism of students at SMAN 1 Trenggalek during the Covid-19 pandemic was in the moderate category, where students could view a difficult event as temporary and could recover from failure. Other research results state that optimism has a negative relationship with individual stress levels (Panchal et al., 2016). Therefore, students with low optimism levels tend to be more vulnerable to stress and anxiety. According to Martinez-Moreno et al. (2020), increasing physical activity such as sports is an alternative way to boost one's optimism.

Social support is defined as the care, appreciation, or availability of assistance received by individuals from others or groups (Sarafino and Smith 2011). Social support as an external factor influencing resilience is an aspect considered in forming individual character (Smestha, 2015). The study results showed that students received high social support from their parents. According to Weiss (1974), full parental social support provides a sense of security and comfort through established emotional attachment. The family size characteristic has a significant positive relationship with high school students' social support during the Covid-19 pandemic. Smestha (2015) stated that low social support obtained by students would result in students feeling distressed and having no role in their environment.

Self-esteem is a subjective assessment of an individual's self (Trzesniewski et al., 2013). The results of the Pearson correlation test analysis showed that social support, self-esteem, and optimism have a significant positive relationship with adolescent resilience. This means that the higher the social support provided to students, the better their self-esteem, and the higher their optimistic attitude, which significantly relates to the higher resilience level of high school students during the Covid-19 pandemic. Furthermore, there is a relationship between social support (Hara & Baidun, 2017) and self-esteem (Musthofawi, 2019) with optimism. The results of the influence test show that self-esteem and optimism affect high school students' resilience during the Covid-19 pandemic. Maesaroh et al. (2019) stated that internal factors such as self-esteem (Smestha, 2015) and optimism (Puspasari, 2020) significantly affect students' resilience.

Parental social support significantly affects adolescent self-esteem (Rahman et al., 2017). Blais et al. (2007) stated that an element related to the development of children's self-esteem is social support, one of which is family. Self-esteem significantly affects students' optimism (Multasih & Bambang, 2013). Parental social support significantly indirectly affects students' optimism and resilience. The limitation of this study is the relatively small number of respondents to represent the variables overall and is only centered on three schools in the area. Future research is expected to collect more data

with a broader range of schools or regions. Additionally, the optimism variable requires using updated instruments tailored to the research context.

## Conclusion and Recommendation

### Conclusion

Based on the results presented above, it can be concluded that most students are female, aged between 15 and 18 years old. In terms of birth order, most students are the second child in their families. The majority of the parents' highest education level is high school, with ages ranging from 46 to 70 years. Family income per month is less than IDR 1,000,000, with family size consisting of 4-5 members in one household. The study results showed significant relationships between the variables of social support, self-esteem, and optimism with students' resilience. SEM analysis results showed that self-esteem and optimism significantly affect high school students' resilience during the Covid-19 pandemic. Therefore, variables such as social support, self-esteem, optimism, adolescent characteristics, and family characteristics are important aspects in improving high school students' resilience during the Covid-19 pandemic.

### Recommendation

The recommendations that researchers can provide in this study are as follows first, for schools and the regional education office, especially in Central Java Province, this study can be a program design for the online learning system during the Covid-19 pandemic. Second, for educators, full support should be given to students, such as simple appreciation for their achievements and successes, and motivating students to remain resilient in following the online learning process during the Covid-19 pandemic. Third, for parents, full support, guidance, and affection should be given to children to endure the difficult situation of the Covid-19 pandemic, facilitating children's learning needs during the online learning process.

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