ORIGINAL ARTICLE

IS THE DESIRE TO TAKE SELFIES RELATED TO SELF-ESTEEM AMONG HIGH SCHOOL TEENS?

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ABSTRACT

Selfitis is one of the phenomena that is currently popular among adolescents. Adolescents are attracted to show self-presentation, one of which is through selfies. This study aimed to identify the correlation between the obsessive desire to take selfies and high school adolescents' self-esteem. This research was a quantitative study with a cross-sectional design. The study population was high school adolescents aged 15-16 years with 797 participants recruited using a total sampling method. The instrument in this study used the Rosenberg self-esteem questionnaire to measure self-esteem and the Selfitis Behavior Scale (SBS) questionnaire to measure selfitis in adolescents. The results showed that most of the adolescents had borderline selfitis (46.3%) and high self-esteem (88.1%). Factors that were significantly related to taking selfies amongst adolescents were gender (p-value: 0.000) and socioeconomic status (p-value: 0.000). Meanwhile, gender (p-value: 0.013), socio-economic status (p-value: 0.032), family harmony (p-value: 0.000), and selfitis (p-value: 0.000) were significantly related to self-esteem in adolescents. The multivariate analysis results showed that harmony in the family was the most influential factor in adolescents' self-esteem. Adolescents with higher levels of selfitis and harmony in the family tended to have better self-esteem.

Keywords: Adolescent; selfie; selfitis; self-esteem; senior high school student

INTRODUCTION

Adolescence is a unique developmental period and is the transition between childhood and adulthood. Adolescence is a period of reconstruction marked by significant biological, cognitive, social, and emotional changes in individuals (Ogden & Hagen, 2019; Wulandari et al., 2018). Changes in physical, sexual, social, and psychological development occur, at the same time, and exposure to external conditions such as poverty, abuse, or violence, can pose a risk to youth health and mental well-being. The population of adolescents in the world has reached 1.2 billion people, or in other words about 1 in 6 of the population are teenagers (WHO, 2018) and about 16 per cent of the total adolescent population has problems with mental health conditions.

Depression is one of the mental health problems that often occur and the leading cause of illness and disability in adolescents (WHO, 2019).

Various factors are associated with depression in adolescents, one of which is low self-esteem (Jayanthi & Rajkumar, 2014). There is an inverse relationship between depressive symptoms and self-esteem, where higher depressive symptoms are associated with lower self-esteem in adolescents (Shah et al., 2020). A person who has low self-esteem for a long time is prone to developing depression. In early adolescence, low self-esteem can also predict the onset of depression during late adolescence and early adulthood (Masselink et al., 2018). Self-esteem plays

a significant role in adolescent development (Minev et al., 2018). In adolescents, self-esteem is an essential factor that helps adolescents face the stresses of life and is a significant determinant of psychological well-being during the developmental stage of adolescence (Jayanthi & Rajkumar, 2014).

According to Rosenberg (1965), self-esteem is an assessment of the overall thoughts and feelings of how an individual refers to themselves. Self-esteem is expressed in the form of positive or negative orientation towards themselves. Adolescence is the most prevalent time when a person tries new things, tries different identities, and is attracted by expressive self-presentation. Individuals desire to present themselves consistently to build an image and claim their identity, one of which is through taking selfies (Lobo & Gowda, 2016). According to the Oxford Dictionary in Sorokowski et al. (2015), selfies are defined as self-portrait photos (or photos of oneself with others) taken by oneself via a cellphone camera or web camera, which are then uploaded to social media sites.

Nowadays, the selfie has become very popular and is a new medium for self-expression (Lobo & Gowda, 2016). Based on Google's 2014 statistical data in a study of Brandt (2014), around 93 billion selfies are taken every day. The calculation is carried out on android cellphone users. Taking, posting, and viewing selfies has become a daily habit for most people (Diefenbach & Christoforakos, 2017). Doing selfies at first is a pleasure and unwittingly wastes time, but gradually this becomes a habit and triggers addiction slowly (Nagaraju & Chikkegowda, 2019). The obsessive desire to take selfies is known as selfitis. In 2014, the American Psychiatric Association classified selfitis as a mental disorder in which the condition is divided into borderline, acute, and chronic (Balakrishnan & Griffiths, 2018).

A selfie is taken to lighten the mood and feel happy (Moneva et al., 2020). Research suggests that selfitis is associated with self-esteem in individuals (Lobo & Gowda, 2016). A selfie is taken for the purpose of discovering the individual's physical attractiveness, to seek social acceptance and approval, as well as to boost an individual's confidence, and to increase their self-esteem (Lobo & Gowda, 2016; Moneva et al., 2020). However, another study conducted by Nagaraju and Chikkegowda (2019) showed the opposite result that there was no significant relationship between selfitis and self-esteem. Several studies above have examined the relationship between selfitis and self-esteem in adolescents, but the study results still showed contradictory results.

Selfitis is an event that is currently happening in Indonesia. Selfitis and mental health conditions in adolescents are interrelated. Identifying the emergence of mental health problems in adolescents can prevent and limit the emergence of physical and mental health problems at later stages of development and provide opportunities for adolescents to live their lives satisfactorily. Therefore, this study aimed to identify the correlation between the obsessive desire to take selfies (selfitis) and self-esteem among high school adolescents in Indonesia.

METHOD
Study Design
This research is a quantitative study with a cross-sectional approach.

Participant
The study population was students of grade 10 high school in Malang, East Java, aged 15-16 years old. The sampling technique used in this study was total sampling and the number of respondents in this study was 797 adolescents.

Instrument
The instrument used in this study was a questionnaire. The questionnaire consisted of three parts, namely demographic data, a questionnaire to measure self-esteem, and the adolescents' desire to take selfies. Demographic data covers gender (male or female), use of free time (playing games/cellphones/social media, watching television, playing with friends, helping parents, sports, studying, reciting, and resting), socioeconomic status (above the Regional Minimum Wages (UMR)/below the UMR), and family harmony.

Self-esteem in adolescents was measured using the Rosenberg Self Esteem instrument. The questionnaire consisted of 10 questions, which consisted of five positive statements and five negative statements. This instrument has four categories of answers, namely strongly agree (3); agree (2); disagree (1); and strongly disagree (0) for positive statements, while for negative statements, the opposite categories were used (Maroqi, 2018; Rosenberg, 1965). In this study, adolescent self-esteem was classified into 2, namely high self-esteem if the score was ≥15 and low self-esteem if the score was <15. The Rosenberg Self Esteem instrument has passed the validity (correlation Pearson product-moment between 0.463 – 0.660 > r-table (0.396)) and reliability test (alpha Cronbach (0.742) > 0,7).

Adolescents' desire to take selfies was measured using the Selfitis Behavior Scale instrument developed by Balakrishnan and Griffiths (2018). This questionnaire consists of 20 question items. Each question item had four answer categories, namely strongly agree (5); agree (4); doubt (3); disagree (2); and strongly disagree (1). The total scores between 20-100 were categorized as follows: scores <40 (normal), scores 40-60 (borderline); score 60-80 (acute) and score 80-100 (chronic). The Selfitis Behavior Scale instrument has passed the validity (correlation Pearson product-moment between 0.447 – 0.758 > r-table (0.396)) and reliability test (alpha Cronbach (0.962) > 0,7).

Data Collection
This study was conducted in grade 10 High School in Malang, East Java. This research was conducted from August 2019 to January 2020.

Data Analysis
Descriptive analysis was used to see the frequency distribution of demographic data on each variable. The bivariate test uses the contingency coefficient test and the Spearman Rank to assess the correlation between demographic factors with self-esteem and selfitis and to assess the correlation between selfitis and self-esteem in adolescents. The multivariate analysis used was logistic regression to determine the influence of gender, socioeconomic status, harmony in the family, and selfitis on self-esteem in adolescents. Data analysis was performed using a statistical program with a significance level of 0.05.

Ethical Consideration
This research has obtained permission from the Health Research Ethics Commission of the Health Polytechnic of the Ministry of Health Malang with an Ethical Approval Certificate ("Ethical Approval") Reg. Number 335 / KEPK-

POLKESMA / 2019. Before taking part in the research, participants received a full explanation regarding the research to be carried out. Respondent participation in this study was voluntary.

RESULT
Characteristics of the Study Sample
The descriptive analysis results showed that most of the adolescents who became research respondents were women (52.3%). Most of the adolescents free time is used for resting (33.8%) and playing games, cellphones, or social media (25.1%). Most of the parents of participants were had salaries above the minimum wage (58.2%). Almost all adolescents who participated in the study had a harmonious family (96.7%), only 3.3% of adolescents had an inharmonious family. The participants' characteristics and the cross-tab value of each variable in more detail can be seen in Table 1.

Table 1. Characteristics of respondents (n =797)

Characteristics	Self-esteem		Selfitis				Total	
	High	Low	Normal	Borderline	Acute	Chronic	n	%
Gender								
Female	356	61	47	191	147	32	417	52.3
Male	346	34	81	178	88	33	380	47.7
Use of free time								
Helping parents	30	3	3	14	13	3	33	4.1
Sports	23	4	5	13	6	3	27	3.4
Studying	112	13	30	63	28	4	125	15.7
Reciting Holy Book	4	3	1	4	2	0	7	0.9
Resting	232	37	45	133	71	20	269	33.8
Watching television	24	6	3	15	10	2	30	3.8
Playing games/ mobile/ social media	180	20	26	82	72	20	200	25.1
Playing with friends	97	9	15	45	33	13	106	13.3
Socio-economic status								
Below the UMR	303	30	36	139	123	35	333	41.8
Above the UMR	399	65	92	230	112	30	464	58.2
Harmony in the family								
Unharmonious	17	9	6	7	10	3	27	3.4
Harmonious	685	86	122	362	225	62	770	96.6
Obsessive of taking selfie								
Chronic	62	3					65	8.2
Acute	216	19					235	29.5
Borderline	322	47					369	46.3
Normal	102	26					128	16.1
Self-esteem								
Low self esteem							95	11.9
High self esteem							702	88.1

Bivariate Analysis
The analysis results on the obsessive behaviour of taking selfies variable showed that most adolescents were in the borderline category (46.3%). Factors most related to the obsessive taking of selfies in adolescents were gender and socioeconomic status. Simultaneously, the use of free time and harmony in the family did not significantly correlate with selfitis in high school adolescents. Gender (p-value = 0.000; r: 0.166) and socioeconomic status (p-value = 0.000; r: 0.181) had a significant relationship to selfitis with weak relationship strength.

Meanwhile, the results of the analysis of the self-esteem variable showed that most adolescents had high self-esteem (88.1%) where gender, socioeconomic status, and harmony in the family are factors related to self-esteem in adolescents. Meanwhile, spare time is not significantly related to the level of self-esteem in adolescents. Gender (p-value = 0.013; r: 0.087), socio-economic status (p-value = 0.032; r: 0.76); and harmony in the family (p-value = 0.000; r: 0.128) has a significant relationship with self-esteem with a very weak relationship strength. The correlation test results between selfitis and self-esteem showed that the obsession with taking selfies was significantly related to self-esteem in adolescents (p-value = 0.000; r: -0.136). The direction of the correlation shows a negative value, which means that the higher level of obsessive taking of selfies can increase self-esteem in high school adolescents. The results of the bivariate analysis in more detail can be seen in Table 2**.**

Table 2. Bivariate analysis of selfitis and self-esteem

Characteristics	Selfitis		Self Esteem	
	P-value	r	P-value	r
Gender	0.000*	0.166	0.013*	0.087
Use of free time	0.177	0.180	0.109	0.120
Socio-economic status	0.000*	0.181	0.032*	0.76
Harmony in the family	0.249	0.072	0.000*	0.128

Characteristics	Selfitis		Self Esteem	
	P-value	r	P-value	r
Obsessive behaviour of taking selfies			0.000*	-0.136

Note: *significant

Multivariate Analysis

The results of the multivariate analysis showed that the variables that were significantly related to self-esteem in adolescents were gender (Sig 0.003), family harmony (sig 0.001), and selfitis (chronic: sig 0.005; acute: sig 0.000; borderline: sig 0.024). Harmony in the family is the variable that has the most significant influence on self-esteem (Exp. B 4.581), where adolescents with inharmonious families are 4.581 times more at risk of having low self-esteem than adolescents with harmonious families. The results also showed that females were at risk of having low self-esteem 1.914 more times than men. Also, the level of selfitis in chronic, acute, and borderline categories is more at risk: (0.179, 0.308, and 0.557 times respectively) of having low self-esteem than adolescents with the level of normal selfies. The results of a complete multivariate analysis are listed in Table 3.

Table 3. Multivariate analysis of self-esteem in adolescents

Factor	Category	B	Sig	Exp (B)	95% CI		Hosmer & Lemeshow test	Nagelkerke R Square
					Lower	Upper		
Gender	Female	0.713	0.003	2.039	1.282	3.245		
Harmony in the family	Unharmonious	1.522	0.001	4.581	1.902	11.035		
Obsessive of taking selfie	Chronic	-1.824	0.005	0.161	0.046	0.568	0.540	0.083
	Acute	-1.277	0.000	0.279	0.144	0.541		
	Borderline	-0.630	0.024	0.533	0.308	0.921		
	Constants	-1.759	0.000	0.172				

Note:
1. Variables entered were gender, socioeconomic status, harmony in the family, and selfitis
2. Variable which have sig > α were not included in the final results (socioeconomic status sig 0.174)

DISCUSSION

This study indicated that most high school adolescents at the researcher's location had borderline selfitis levels, and only a small proportion of adolescents were in the chronic category of selfitis. This study's results are in line with research conducted by Nagaraju and Chikkegowda (2019), which showed that the highest level of selfitis was at the borderline level with a total of 48.7%, and only a few participants had chronic selfitis levels. This study indicates that gender has a significant relationship with the level of obsessive taking of selfies and self-esteem in high school adolescents. Women are at 1.9 times greater risk of having low self-esteem compared to men. Research conducted by Malik et al. (2020) showed that selfitis was significantly related to gender, where women had a greater tendency to have higher rates of selfitis. The tendency for young women to take selfies is associated with boredom and peer pressure; through selfies it allows women to experiment with their appearance and show themselves to be more attractive (Dhir et al., 2016; Nguyen & Work, 2014). Women who have high self-esteem tend to have more selfie posts on social media (Poe, 2015). On the other hand, although self-esteem is significantly related to gender, men tend to have higher self-esteem than women.

Socioeconomic status is also closely related to the level of selfitis and self-esteem in adolescents. An ethnographic research showed that taking selfies is closely related to the sociocultural context. Individuals living in marginalized and slum areas use selfies to meet their social, emotional, and physical needs (Nemer & Freeman, 2015). The research of Veselska et al. (2010) also showed that prosperity in the family is related to self-esteem in adolescents, where low socioeconomic status is associated with lower self-esteem. The relationship between socioeconomic status and self-esteem in adolescents is mediated by adolescents' personality and mental health (Veselska et al., 2010). This

study also indicates that harmony in the family was the most significant factor that influences self-esteem in adolescents. Adolescents with inharmonious families are at 4.581 times greater risk of having low self-esteem. Meanwhile, adolescents who come from harmonious families have higher self-esteem than those who come from conflicted families (Shi et al., 2017).

This study also indicated that the obsessive taking of selfies was significantly related to the negative direction of self-esteem in adolescents. This study's results are contrary to the research conducted by Wang et al. (2017), which showed no significant relationship between posting selfies and self-esteem. This study indicates that adolescents with high levels of selfitis tend to have high self-esteem and vice versa. Adolescents with an average level of obsessive selfie-taking tend to have low self-esteem. However, this study's analysis results cannot determine which one is the cause and which one is the result. So, it is possible that the high self-esteem of adolescents in this study is related to the self-esteem behavior of adolescents. The level of selfitis, chronic, acute, and borderline, is more at risk of having low self-esteem (0.179, 0.308, and 0.557, respectively) compared to adolescents with the level of normal selfies.

In this study, the strength of correlation between selfitis and self-esteem was low. This may be related to the participants' characteristics, where nearly half of the participants were male (47.7%). Men are associated with lower selfie-posting behavior than women (Wang et al., 2020). There are three different motivations for someone to do selfies, namely self-approval, ownership, and documentation. Self-approval is a need to validate one's self-confidence by taking selfies. Ownership tends to mean taking selfies to comply with social norms so that someone feels like being a part of a group. Documentation means doing selfies as an effort to capture moments, to maintain one's memories and

experiences (Etgar & Amichai-Hamburger, 2017). For someone with high self-esteem, the behavior of posting selfies is not related to the desire to seek other people's attention and the urge to escape boredom (Biolcati & Passini, 2018).

Taking selfies, according to people who take selfies, is considered a fun activity. Through selfies, teenagers get pleasure because they can build their personal image and identity (Mohamed & Karim, 2019). Selfie behavior is also related to social interactions, where individuals can maintain, gain, or lose the benefits of their behavior, which then impacts on their emotional condition. (Monacis et al., 2020). A person's addiction to selfies is closely related to various mental health problems such as narcissism, loneliness, and depression. In adolescence, selfie addiction is closely related to the onset of mental health problems such as narcissism, loneliness, and depression in the future.

Limitations of the Study
The limitations of this study were that this study was conducted in a population with the same characteristics of participants (grade 10), so that the results obtained may not reflect the overall age of adolescents. However, this study was conducted in a large population so it is expected to reduce the possibility of bias.

CONCLUSION AND RECOMMENDATION
The results of this study indicate that there are several factors associated with selfitis and self-esteem in adolescents. Gender, harmony in the family, and selfie-taking are related to self-esteem in adolescents. However, it is still necessary to learn more about causality. Family harmony is the factor that most influences self-esteem. In addition, selfies also had the highest correlation with self-esteem in adolescents. So it is essential to pay attention to family harmony and the level of selfitis in adolescents. Individuals who takes selfies and get pleasure from their selfies will continue to do these habits. In the end, this habit will lead to self-addiction, which will have an impact on mental health in the future. Adolescence is the right time to alert parents, teachers/educators, and health workers in order to worry about and identify the relationship between selfie-addiction and family harmony in adolescents. So, it is necessary to prevent early and appropriate intervention in dealing with adolescents' mental health problems.

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