The Relationship Between Mother's Safety Competency and The Risk Perception in Sharenting Activities

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Hubungan Antara Kompetensi Keamanan Ibu dan Risiko Persepsi dalam Aktivitas Sharenting

ABSTRACT

Social media has attracted many groups of society to use it for various goals. Some parents use it as digital gallery for their children's photographs, which is now becomes common digital activity in Instagram. In the midst of Instagram popularity, there is risk, lurks children's safety. The risk includes misuse of children's images or even kidnapping threat. The activity of sharing online information about children by parents is known as 'sharenting', which is mostly practiced by mothers. By practicing 'sharenting', they might violate children's privacy rights. To avoid this, parents' digital literacy skill is needed. Parents' digital literacy may affect their skill in using digital media, including safety competency. Thus, this research aims to measure the relationship between mother's safety competencies and risk perception of children's privacy in 'sharenting' activities. The method for this research is web survey, using questionnaire to collect the data from 385 mothers who have children under 13 years old, in accordance with Instagram's age restriction policy, who live in East Java. The results show that the safety competency factor only correlates 14.4% with the mothers' risk perceptions of children's privacy. Another factor of 85.6% is not seen in this study. The weak relation between mothers' safety competency and their risk perception of child's privacy in this research shows that there are many other factors that can be explored in the future research.

Keywords: *Children's privacy; East Java; Safety competencies; mothers; risk perception*

ABSTRAK

Media sosial menarik banyak kalangan masyarakat untuk menggunakannya dengan berbagai tujuan. Beberapa orang tua menggunakannya sebagai galeri digital untuk foto anak-anak mereka, yang sekarang menjadi aktivitas digital yang umum di Instagram. Di tengah popularitas Instagram, terdapat risiko yang mengintai keselamatan anak-anak. Risiko tersebut termasuk penyalahgunaan gambar anak-anak atau bahkan ancaman penculikan. Kegiatan berbagi informasi daring tentang anak oleh orang tua dikenal dengan istilah *'sharenting'*, yang paling banyak dilakukan oleh para ibu. Dengan mempraktikkan *'sharenting'*, mereka mungkin melanggar hak privasi anak-anak. Untuk menghindari hal tersebut, orang tua perlu memiliki keterampilan literasi digital. Literasi digital orang tua dapat memengaruhi keterampilan mereka dalam menggunakan media digital, termasuk kompetensi keamanan. Penelitian ini bertujuan untuk mengukur hubungan antara kompetensi keamanan ibu dan persepsi risiko atas privasi anak dalam kegiatan *'sharnting'*. Metode penelitian yang digunakan adalah survei web, dengan menggunakan kuesioner untuk mengumpulkan data dari 385 ibu yang memiliki anak di bawah 13 tahun, sesuai dengan kebijakan pembatasan usia Instagram, yang tinggal di Jawa Timur. Hasil penelitian menunjukkan bahwa faktor kompetensi keamanan hanya berkorelasi 14,4% dengan persepsi risiko ibu terhadap privasi anak. Faktor lain sebesar 85,6% tidak terlihat dalam penelitian ini. Lemahnya hubungan antara kompetensi keselamatan ibu dan persepsi risiko mereka terhadap privasi anak dalam penelitian ini menunjukkan bahwa masih banyak faktor lain yang dapat dieksplorasi dalam penelitian selanjutnya.

Kata kunci: ibu; Jawa Timur; kompetensi keamanan; persepsi risiko; privasi anak

INTRODUCTION

Since its development, social media has attracted many groups of society to use it for various goals. Some parents use it as digital gallery for their children's photographs, which is now becomes common digital activity in Instagram. In Indonesia, public figures make an Instagram account for their children and those accounts have got official blue thick or verified by Instagram (Sachi, n.d.). The blue thick indicates many factors, but at least it shows that the account has good numbers of followers and engagement.

The phenomenon of children Instagram influencers not only happen in Indonesia. It can be found globally. For instance, (Molenaar, 2021) lists at least 18 global children influencer under 18 years old, who come from all around the world and have successfully built their own image through Instagram. In their own policy, Instagram requires someone to be at least 13 years to have an account (Instagram Help Center, 2022) but without any feature of age verification, anyone can easily make a new account. In early 2021, Instagram has initiated Instagram Kids for children under 13 years old but they are pausing the project due to many critics (Harris, 2021).

In the midst of Instagram popularity, there is risk, lurks children's safety. The risk includes misuse of children's images or even kidnapping threat. Some troubling news around children can be easily found. Kylie Jenner decided to take down her child's photograph in Instagram after received a kidnapping threat (Sadino, 2018). Meanwhile, Instagram photographs of the twins from Syahnas, an Indonesian public figure have been misused in children trafficking account in Instagram (Ndani, 2020). What happened to Syahnaz's children is considered as digital kidnapping. According to (Bearak, 2017), digital kidnapping refers to the stealing of minor's photo in the internet and using it as their own. Even though it looks harmless but this can lead to more serious cybercrime, like children kidnapping or trafficking.

The availability of children's image or photographs in internet, specifically in social media cannot be separated from the uploading activity conducted by their parents. The activity of sharing online information about children by parents is known as 'sharenting' (Blum-Ross and Livingstone 2017, p. 111; Garmendia, Martinez, & Carmelo, 2021, p. 2). 'Sharenting' might be considered as a common practice among parents, especially mothers. However, it may cost the children's privacy because not every parent asks for their children's permission when doing 'sharenting'.

The practice of 'sharenting' is mostly done by mothers. Research by Duggan et al. (2015) states that mothers and fathers share child related content online, however mothers post more in terms of frequency than fathers (in Garmendia, Martinez, & Carmelo, 2022, p. 5). There are many reasons for mothers or fathers in sharing information about their children online, for example to share the way parents raise their children, to connect with the big family and friends, to share the daily life of the family, or event for professional content like (micro)blogging (Garmendia Martinez, & Carmelo, 2022).

Unwittingly, parents overshare their children photographs and activities online during their 'sharenting' practice. Not only public figures or contents creators who sometimes overshare. It can be also done by general public (parents). Since 'sherenting' is now considered as a natural practice, even schools in Indonesia ask parents to use Twibbon with the children's pictures for certain school's events, which is also supported by Ministry of Education and Culture.

Figure 1 Twibbon considered as a natural practice

Parents, schools, or caregivers are legally considered as the guardians of the children and are responsible for the information about children that they share (Garmendia, Martínez, & Carmelo, 2022, p.4). By practicing 'sharenting', they might violate children's privacy rights. To avoid this, parents' digital literacy skill is needed 'Digital literacies' refers to the practices of communicating, relating, thinking and 'being' associated with digital media (Jones & Hafner, 2021, p. 17). Parents' digital literacy may affect their skill in using digital media, including

safety competency, which is related to safety features in the digital world that also relevance with privacy rights (A Global Framework of Reference on Digital Literacy Skills for Indicator 4.4.2, 2018, p. 25)

Parents' Safety competency may show their awareness toward data safety on what they share in the digital world, in this context in Instagram. The cases mentioned above show that there is still gap between the use of digital media by parents, particularly that related to children's data sharing in Instagram, with their awareness of children's privacy. This gap can be caused by the low parents' risk perception of children's photo and data sharing in the digital world. In the context of 'sharenting', one of the risks that might occurs is the violation of children's privacy rights.

Research related to 'sharenting, and privacy has been conducted previously. For example, Blum-Ross and Livingstone (2017) study about how parents define the borders of their digital selves and justify what is their "story to tell.". Garmendia, Martínez, and Carmelo (2021) study about 'sharenting' practice, parental mediation and privacy among Spanish children. The study shows that parents who frequently mediate their children's online activity share significantly less information. Meanwhile, Dwiarsianti (2022) studies about 'sharenting' on Instagram which shows the lack of parents' awareness in maintaining the privacy of their children. Those studies have shown that there is problem when parents do 'sharenting' in relation to the risks that must be faced by their children. Another research is conducted by Ranzini and colleagues who examine privacy issues on Instagram that have to do with sharing activities. This study shows that the variable awareness of privacy is not a variable that affects parental awareness in sharing parenting content on Instagram (Ranzini et al., 2020). However, there has not been any research that directly tries to link the safety competency of mothers (as part of digital literacy) with the perception of risk in 'sharenting' activities.

From the problem explained above, this research aims to answer the following question: How does the relationship between mother's safety competencies and risk perception of children's privacy in 'sharenting' activities? In order to answer the question, we use quantitative research method using survey to measure the relationship between independent and dependent variables.

Private information can be defined as the content of potential disclosures; information that can be owned. Meanwhile privacy is the feeling of owning a private information (Griffin, Ledbetter, and Sparks 2019, p. 146)

CPM refers to a privacy management system that consists of 3 main things: privacy ownership, privacy control, and privacy turbulence. Privacy ownership contains privacy boundaries that involves information we have but other's do not know. These boundaries can be within thin and porous or thick, impenetrable boundaries. Privacy control, contains our decisions to share our private information with others. This what Petronio considers as the engine of privacy management. The decision to share private information will reshape the boundaries in privacy ownership. Privacy turbulence will happen when privacy management does not go as it is expected (Griffin, Ledbetter, and Sparks, 2019, p. 145)

There are five main principles from Petronio's CPM: (1) People believe that they own and have the right to control their private information. The main point here is that people feel and believe that the information belongs to them, whether the feeling is accurate or not, is not the issue. But since people believe that the information is important to keep, thus people will try to control who can or may know about it (Griffin Ledbetter, & Sparks. 2019, p. 147), (2) People control their private information through the use of personal privacy rules. CPM theory is a rule-based theory, which assumes that we can learn people's freely chosen actions if we understand the system they use to interpret and organize their lives. CPM sees 5 factors that influence the development of privacy rule: culture, gender, motivation, context, and risk-benefit ratios, (3) When the private information shared with other, the other person becomes co-owners of the information. Collective privacy boundary: An intersection of personal privacy boundaries of co-owners of private information, all of whom are responsible for the information (Griffin, Ledbetter, & Sparks, 2019, p. 148), (4) Co-owners from private information need to have mutual agreement upon the privacy rule of telling somebody else. Mutual privacy boundaries are the commonality of boundaries that owners and co-owners have of personal information. Boundary ownership: The rights and responsibilities that co-owners of private information have to control its spread. There are 2 types of co-ownership: (a) deliberate confidant: A recipient who sought out private information, (b) Reluctant confidant: A co-owner of private information who did not seek it nor want it. This position will affect the boundaries of the information. Meanwhile, boundary permeability refers to the extent to which a boundary permits private information to flow to third parties (Griffin, Ledbetter, & Sparks, 2019, pp. 150-152), (5) When co-owners do not enforce the mutual privacy boundaries, boundary turbulence will likely to happen. Sometimes co-owner do it intentionally, or because of confidentiality dilemma, the tragic moral choice confidants face when they must breach a collective privacy boundary in order to promote the original owner's welfare. It might also happen because of miscalculation in timing, simply because forgetting who might have the access to the information

'Digital literacies' refers to the practices of communicating, relating, thinking and 'being' associated with digital media (Jones & Hafner, 2021, p. 17). National Curriculum Framework for AII in "Digital Literacy, 21st Century Competences for Our Age: The Building Blocks of Digital Literacy from Enhancement to Transformation" published by Department of eLearning Malta (2015) defines digital literacy as skills in using IT with confidence and critical for communicating, working, and entertaining. Meanwhile UNESCO (in UNICEF, 2019) states that digital literacy is the skills to access, organize, understand, integrate, communicate, evaluate, and create information in a safe and polite way in digital technology.

From the above definitions, we can understand that digital literacy does not only about the skill to use software and to operate digital devices. Digital literacy needs complex cognitive, motor, sociological, emotional abilities when a person is in contact with the digital world (Eshet-AlKalai, 2004). The complexity of digital literacy occurs because this literacy also requires competencies from previous literacy, such as: computer literacy, information communication technology literacy, information literacy, and media literacy. (UNICEF, 2019).

Basically, UNICEF has prepared digital literacy education steps for children. However, this module is still too difficult to understand by children under 12 years old, so that parents need to assisting their digital literacy education. As the childrens's assistance, parents are required to have digital literacy. Children need this digital literacy to avoid many threats, one of them is the privacy threat.

Chen (2018) states that "since the development of internet, the concept of privacy right has changed from 'the right to be alone (by Warren and Brandieis, 1890)' to the right to control personal information (Rosen, 2001)". In internet, this kind of control is very complex. The reason is, the form of monitoring can be done easily through this technology. The internet creates cheaper surveillance, so that monitoring can be done to monitor anyone and anytime (Schneier, 2015)

In the concept of digital literacy, the issue of privacy is included in the safety competence (A Global Framework of Reference on Digital Literacy Skills for Indicator 4.4.2, 2018; Department of eLearning, 2015). This competency is about personal protection, data protection, and digital identity protection for digital media users. Besides, this competency also includes self-security measurement and safe long-term use of digital media. Meanwhile, according to the report "A Global Framework of Reference on Digital Literacy Skills for Indicator 4.4.2" (2018), safety competencies are divided into the ability to protect devices, protect personal data and privacy, protect health and well-being, and protect the environment.

Risk is the possibility that a behavior, situation, or event experienced by a person leads to a number of consequences that affect aspects of human values (Renn & Rohrmann, 2000). In some contexts, the word 'risk' is associative with an unexpected or dangerous event. This association causes the definition of risk to develop into the possibility of social or physical harm caused by the source of risk at a certain time. The source of risk or hazard here refers to conditions, events, or things that can harm (Rohrmann & Renn, 2000).

Risk perception refers to a person's intuitive evaluation of the dangers they are exposed to or may be exposed to. Evaluation of the risk is influenced by factors such as individual, social, cultural, and contextual (Cori, Bianchi, Cadum, & Anthonj, 2020). Meanwhile, Sjöberg et al (2004). define risk perception as a subjective assessment of the likelihood of an event occurring and how we pay attention to the consequences of that event (Sjöberg, Moen, & Rundmo, 2004). Risk perception includes evaluation of the possibility/probability of negative consequences. This perception is not only individual, but it is a reflection of social and cultural construction of values, symbols, history, and ideology (Weinstein, 1989 as cited in Sjöberg, Moen, and Rundmo, 2004).

The risk perception includes (Rohrmann & Renn, 2000) five aspects, namely, (1) *Hazards*, refers to the source of risk, either which can be explained by the respondents or which cannot be due to limited knowledge, (2) *Assessment of aspects and dimensions of risk*, usually a number of risk sources will be assessed by respondents based on predefined characteristics, (3) *Research subjects*, referring to the demographic data of research subjects. Research on risk perception cannot be separated from the demographics of the respondents, (4) *Country and culture*, which may play play a role in shaping a person's risk perception, (5) *Type of data analysis*, which can be carried out using two approaches, namely analysis of sources of risk or hazard, and analysis of research subjects.

In addition to aspects in risk perception, there are also basic findings about the structure of risk perceptions (Rohrmann & Renn, 2000, pp. 23 – 31) which are divided into six matters. *First,* the effects of attention and selection. The risks faced by modern society are no longer experienced by everyone's senses, but are learned through communication. Modern society may not experience disaster personally, but the mass media present it to society and make it a hazard. Today's society is exposed to so much information, more than they can process. Thus, they select information by paying attention to the information they consider important. *Second*, intuitive discovery. After an information is received, a person's common-sense mechanism is used to process the information and creates an initial conclusion. This process is called intuitive discovery or intuitive heuristic. This is where the bias often occurs. Some of the intuitive biases that have been found in previous research are:

Table 1 Intuitive Bias in Risk Perception

NO	BIAS	DESCRIPTION
1	Availability	Events that can quickly appear in people's minds are judged to be more likely than events that are less mentally available
2	Holding effect	The perceived significance of an information becomes an important factor that makes the information get attention
3	Representation	A single, directly experienced event is considered more typical than information based on its frequency
4	Avoid cognitive dissonance	Information that can create cognitive dissonance tends to be ignored or underestimated.

Source: Rohrmann & Renn, 2000

Third, qualitative aspect. The nature of the sources of risk acquired, situational characteristics, and a number of other factors shape individual risk perceptions. There are eight qualitative characteristics that affect the increasing or decreasing risk tolerance.

Table 2 Qualitative Characteristics of a Person at Risk

NO	CHARACTERISTICS	ROLE
1	Personal control	Increase tolerance of risk
2	Institutional control	Depends on people's trust in institutions
3	Voluntarization	Increase tolerance of risk
4	Familiarity	Increase tolerance of risk
5	Horror	Lower tolerance of risk
6	Unbalanced distribution of risks and benefits	It depends on each person, but it becomes a strong social factor to avoid risk
7	False sources of risk	Reinforces awareness of risk and often lowers risk tolerance
8	Error (blame)	Increase the search for social and political responses

Source: Rohrmann & Renn, 2000.

Fourth, meaningful image. Another qualitative risk perception approach can be done by looking at meaningful images (semantic images). There are four meaningful images, namely (1) Damocles Sword: Risk is seen as a threat that will lead to a sudden disaster and without knowing when it will occur, (2) Pandora's Box: Risk is seen as an invisible threat to health. This image appears a lot based on information obtained rather than personal experience, (3) Athena's Scale: Risk is perceived as a balance between what is gained and what is sacrificed. Most of these images are used for material-related risks, (4) Hercules Images: Often risk is sought and desired to improve personal skills in dealing with dangerous situations.

Fifth, difference between hazards. Differences between sources of risk can affect disparities in risk perception and risk acceptance. The characteristics of the risk source are very important to assess or perceive the risk of an event. Differences of risk characteristics can be seen from (1) Risk magnitude: A definite source of risk that is classified as high risk. Research shows the sources of high risk for a person are nuclear power and smoking habits, (2) Acceptance of different types of risk: How a person evaluates the source of the risk and the extent to which they are prepared to accept the risk depends on the type of risk and the reasons why they are exposed to the source of the hazard. Sixth, the structure of risk. Previous research has shown that there are three main factors that shape the structure of the risk perception; (1) the level of horror of a risk, (2) the level of knowledge and familiarity with the source of risk, and in several studies discussing (3) the number of people exposed to risk.

In accordance with the research problem, this study uses two variables. The independent variable or variable X in this study is the mother's safety competencies. Meanwhile, the dependent variable or variable Y in this study is the risk perception of children's privacy. The relationship between variables in this study is linear and can be seen in figure 1 below.

X (mother's safety competency)		Y (risk perception of children's privacy)

Figure 2 Relationship between variables

This research only discusses the fourth competencies, namely safety competencies because this research assumes that the main factor that affects the risk perception about privacy is one's understanding of security in using digital media. Safety competencies refer to a person's ability to protect devices, content and personal data in a digital environment (A Global Framework of Reference on Digital Literacy Skills for Indicator 4.4.2, 2018).

There are four skills needed so that a person can have safety competencies. The following table 3 describes the four skills needed.

Table 3 Skills needed in safety competencies

No	Criteria	Description
1	Protecting personal device	The ability to protect digital devices and content, and to know the safety and security measures to protect digital devices and content. Keywords: hacking, scams, malware.
2	Protecting personal data and privacy	The ability to protect personal data and privacy in a digital environment, the ability to understand how to use and share personal information in a digital environment, and the ability to protect oneself and others from privacy threats. Keywords: digital trace, data theft.
3	Protecting health and well-being	The ability to be able to avoid health risks and threats to physical and psychological well-being when using digital technology, and the ability to be able to protect oneself and others from possible dangers in the digital environment. Keywords: bullying, cruelty, teasing, anonymity, emotional words.
4	Protecting the environment	The ability to be aware of the environmental impact of digital technologies. Keywords: -

Source: A Global Framework of Reference on Digital Literacy Skills for Indicator 4.4.22(2018, p. 24 & 55)

Because the topic of this study does not impact on environmental factors, this study only uses three skills in safety competencies, namely: protecting personal devices, protecting personal data and privacy, and protecting health and well-being.

According to Rohrmann and Renn (2000) research on risk perception can be carried out using two approaches, namely analysis of sources of risk or hazard, and analysis of research subjects. This research focuses on the hazard, as mentioned Cori et al. (2020) that risk perception refers to people's intuitive evaluations of hazards that they are or might be exposed to.

Hazards, refers to the source of risk, either which can be explained by the respondents or which cannot be due to limited knowledge (Rohrmann and Renn, 2000). Three types of hazards are used in this research, namely technological, financial, and psychological. Technological hazard refers to the possibility of loss within technological context experienced by mothers in doing sharenting activities in Instagram. Financial hazard refers to the risk of loss of money experienced by mother to support the sharenting activities. Meanwhile, psychological hazard refers to the possibility of psychological disturbance that might be experienced by both mothers and children related to sharenting activities.

The hypotheses of this research are as follow

H0: There is no relation between mother's safety competencies and risk perception of children's privacy in 'sharenting activities

Ha: There is relation between mother's safety competencies and risk perception of children's privacy in 'sharenting activities

METHOD

There are three categories of independent variables in this study. The three categories are taken from the skills needed for someone to have safety competencies. The three categories are: the ability to protect personal devices, the ability to protect personal information and privacy, and the ability to protect health and well-being. Meanwhile, there are also three categories in the dependent variable, namely: technological hazard, financial hazard, and psychological hazard. To measure the independent variable, the researcher used the Guttman scale. Meanwhile, the measurement of the dependent variable was carried out using the Likert scale.

We use web survey, by which respondents can access the questionnaire by copying a link to their internet browser. Questionnaire is used to measure respondents' safety competency and their risk perception of children privacy in Instagram. Subjects in this research are mothers in East Java Province. This population is chosen based on the survey of the Ministry of Communications and Informatics in 2020. East Java becomes the province with the lowest safety competency score, even though Java is the island with most sufficient internet infrastructure in Indonesia (Agahari, 2018).

Mothers who become subjects are those who have children under 13 years old, in accordance with Instagram's age restriction policy. Mothers who become subjects are those who have children under 13 years old, in accordance with Instagram's age restriction policy. The subject will also be the population of this research. However, the exact numbers of mothers who has children under 13 years old in East Java is unknown, thus the sample of this research will be counted using Cochran formula (Nanjundeswaraswamy & Divakar, 202, p. 328).

This research uses confidence level of 95%, with 5% of margin error. Using the Cochran formula, it is determined that the sample in this study is 385. Data is collected through a questionnaire, then will be tested for its validity and reliability before analyzed using Pearson correlation (Schober, Boer, & Schwarte, 2018, p. 1763). Validity of variable safety competency and risk perception is determined by looking at the result of Pearson Correlation and compare it with R table. If all the data is above R table, the data is valid. As alternative, the validity can also be checked from Sig (2-tailed). If all the data is under 0.05, the data is valid.

To check the reliability of safety competency variable, Kuder Richardson 20 is used, which is suitable for Guttman scale. Meanwhile, the reliability of risk perception variable will be tested using Cronbach Alpha. According to Ghozali (2018), data will be reliable when it is above 0.7. After validity and reliability test, the correlation between mothers' safety competency and risk perception is tested using Spearman (Al-Hameed, 2022) as this research aims to measure the relation between two variables.

We use SPSS for data processing and interpretation of r value uses the standard as follow,

Table 4 Interpretation of Correlation Spearman Rank

ρ	Correlation Degree
ρ = 0	No correlation
0 < | ρ | ≤ 0.19	Very weak
0.20 ≤ | ρ | ≤ 0.39	Weak
0.40 ≤ | ρ | ≤ 0.59	Moderate
0.60 ≤ | ρ | ≤ 0.79	Strong
0.80 ≤ | ρ | ≤ 0.99	Very strong
ρ = 1.00	Monotonic correlation

Source: (Yan et al., 2019).

Next, we calculate the contribution of the safety competency variable to the risk perception variable through the determinant coefficient formula (Riduwan, 2020). It will show the percentage contribution of the safety competency variable to the risk perception variable, while the remaining percentage that is not represented by safety competency may come from other variables that have not been studied in this study.

FINDINGS AND DISCUSSION

Validity of safety competency and Risk perception

The validity of safety competency can be seen through Pearson correlation compared to r table. r table for samples close to 400 is 0.098. From Table 5 it is clear that all data are above r table. So that the data from safety competency variable is valid.

Table 5 Validity of Safety Competencies

		XTOTAL	r table	
X1	Pearson Correlation	.185**	0.098	VALID
	Sig. (2-tailed)	.000		
	N	385		
X2	Pearson Correlation	.100*	0.098	VALID
	Sig. (2-tailed)	.050		
	N	385		
X3	Pearson Correlation	.209**	0.098	VALID
	Sig. (2-tailed)	.000		
	N	385		
X4	Pearson Correlation	.412**	0.098	VALID
	Sig. (2-tailed)	.000		
	N	385		
X5	Pearson Correlation	.561**	0.098	VALID
	Sig. (2-tailed)	.000		
	N	385		
X6	Pearson Correlation	.595**	0.098	VALID
	Sig. (2-tailed)	.000		
	N	385		
X7	Pearson Correlation	.299**	0.098	VALID
	Sig. (2-tailed)	.000		
	N	385		
X8	Pearson Correlation	.349**	0.098	VALID
	Sig. (2-tailed)	.000		
	N	385		
X9	Pearson Correlation	.638**	0.098	VALID
	Sig. (2-tailed)	.000		
	N	385		
X10	Pearson Correlation	.258**	0.098	VALID
	Sig. (2-tailed)	.000		
	N	385		

(Source: primary data)

The validity of risk perception can be seen also through Pearson correlation compared to r table. r table for samples close to 400 is 0.098. From Table 6 it is clear that all data are above r table. So that the data from risk perception variable is valid.

Table 6 Validity of Risk Perception

		YTOTAL	r table	
Y1	Pearson Correlation	.665**	0.098	VALID
	Sig. (2-tailed)	.000		
	N	385		
Y2	Pearson Correlation	.683**	0.098	VALID
	Sig. (2-tailed)	.000		
	N	385		
Y3	Pearson Correlation	.668**	0.098	VALID
	Sig. (2-tailed)	.000		
	N	385		
Y4	Pearson Correlation	.769**	0.098	VALID
	Sig. (2-tailed)	.000		
	N	385		
Y5	Pearson Correlation	.716**	0.098	VALID
	Sig. (2-tailed)	.000		
	N	385		
Y6	Pearson Correlation	.716**	0.098	VALID
	Sig. (2-tailed)	.000		

	N	385		
Y7	Pearson Correlation	.767**	0.098	VALID
	Sig. (2-tailed)	.000		
	N	385		
Y8	Pearson Correlation	.725**	0.098	VALID
	Sig. (2-tailed)	.000		
	N	385		

(Source: Primary Data)

Reliability of safety competency and risk perception

Reliability of safety competency is tested using Kuder Richardson 20 and the result for KR 20 (coefficient reliability) is 0,572 which means moderate and it is still reliable. (see Table 7)

Table 7 coefficient reliability standard

Coefficient reliability	Criteria
0.81 – 1.00	Very Good
0.61 – 0.80	Good
0.41 – 0.60	Moderate
0.21 – 0.40	Poor
0.00 – 0.20	Very poor

(Source: Sutrisno, 2016)

Reliability of risk perception is tested using Cronbach Alpha, and the result is 0,855. According to Ghozali (2018) data is reliable when it is above 0,7. Thus, the data of risk perception in this research is reliable.

Demographic Data

Data collection period is from February 25, 2022 until April 10, 2022 with 420 questionnaires come back to us. However, 32 data are error, and 3 others are blank. Thus, after elimination, we have 385 data to be processed. The result shows (Figure 3) that most of the respondents are mother in their 20's. There are 73 (18.9%) mothers with 28 years old, followed by 46 mothers with the age of 25 (11.9%) and 44 mothers (11.4%) with the age of 26.
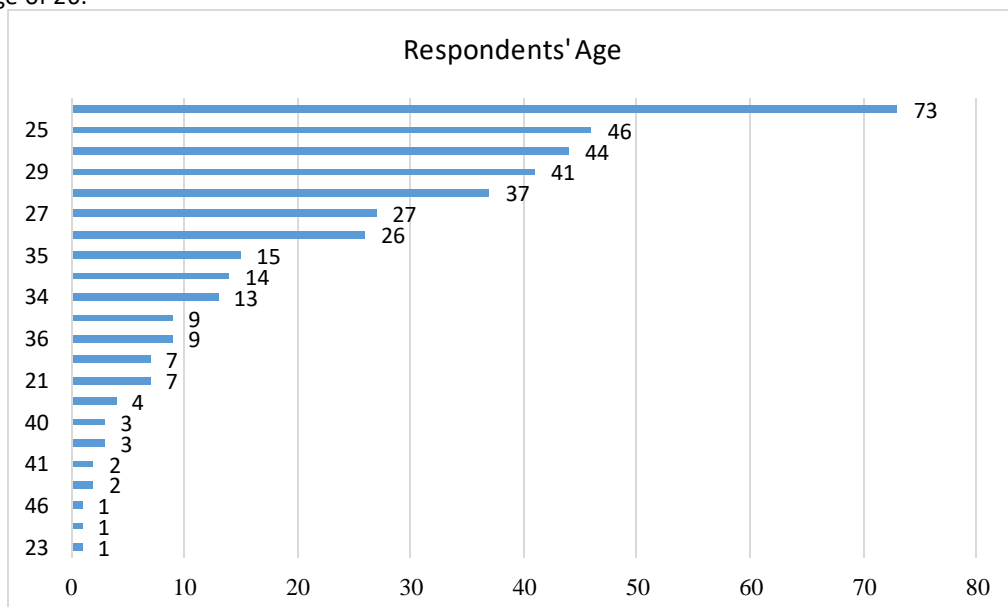

Figure 3 Respondents' Age
Source: Primary Data

Meanwhile, Figure 4 shows the child's age chart which is very diverse from 1 to 12 years old. The majority of the children's ages obtained in the study were 12 years with a total of 48 (12.4%). In second position is 2 years old with a total of 40 (10.3%), and in third place is 7 years old with a total of 39 (10.1%).
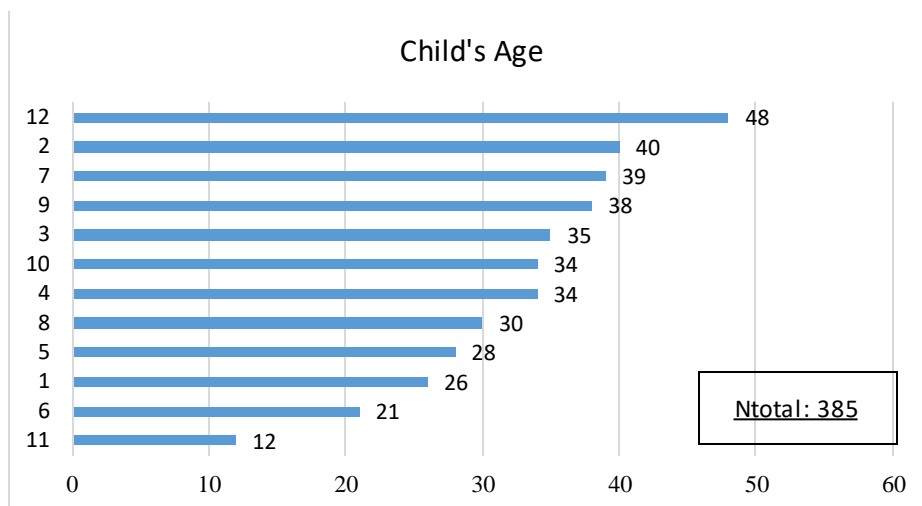
Child's Age

Figure 4 Child's Age
Source: Primary Data

This research focus on East Java Province that has 29 counties and 9 cities ("Profil," n.d.). The respondents in this research live in 31 different cities. Majority come from big cities in East Java. Surabaya become the most chosen city with a total of 104 (27%) respondents. Malang City and Regency are the domicile areas of the second largest respondent. In total there are 61 (15.8%) respondents live in Malang City and Regency. In third place, 25 (6,4%) respondents live in Kediri. By looking at those three cities, it can be seen that respondents who are active in sharenting are those who live in the cities, instead if counties.
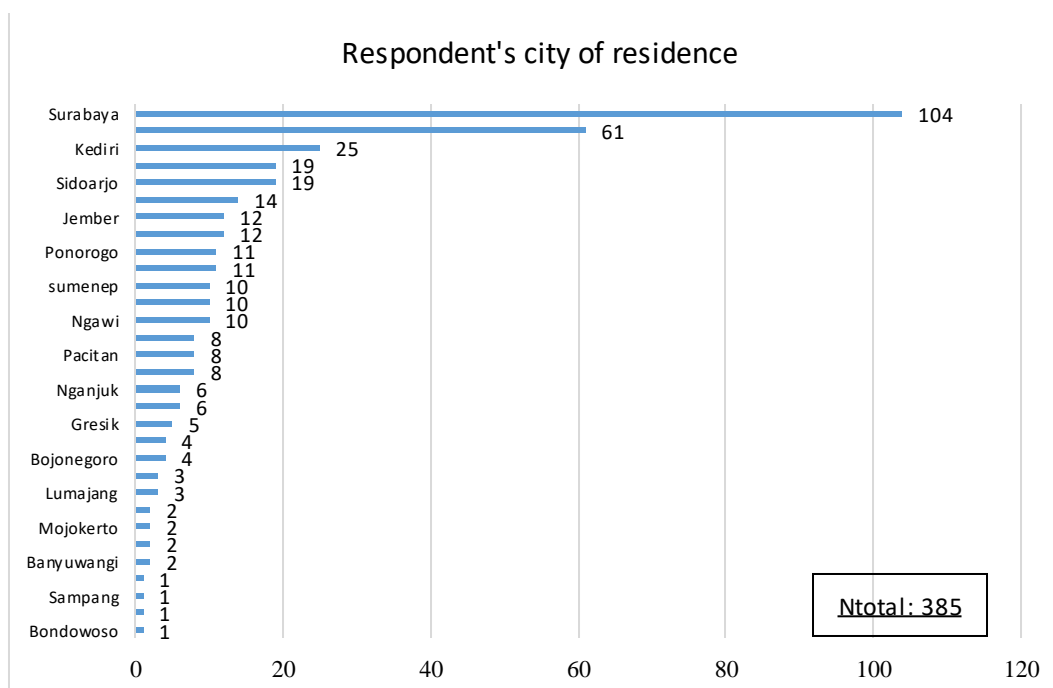
Respondent's city of residence

Figure 5 Respondent's city of residence
Source: Primary Data

Finally, Figure 6 gives picture about respondents' educational background. Majority of the respondents have graduated from undergraduate degree (S1 with a total 246 (63.8%) respondents. Followed by those who graduated from high school/vocational high school with a total of 113 (29.3%) respondents. Next are the respondents who graduated from postgraduate degree (S2) with a total 23 (5.9%) respondents. By looking at

this profile, it can be seen that most of the respondents have finished their 12-year compulsory education program and even most of them have graduated from the university.
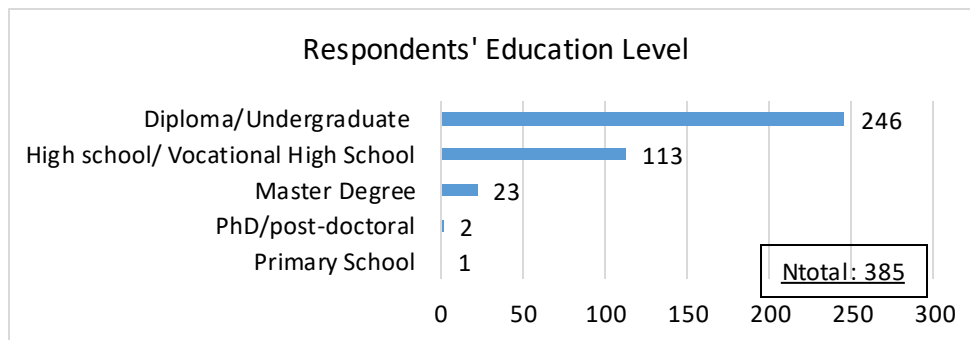

Figure 6 Respondents' Education Level
Source: Primary Data

Sharenting Habits

This research looks for the sharenting habits by the type of the content that they share, and also the feature they use to upload it. Instagram has three main features that can be used by users to upload their contents, namely, Story, Feeds, and Reels. Figure 7 shows that majority of the respondents conduct their sharenting activity using Story (69%), followed by Feed (24%) and then Reels with only 7%.
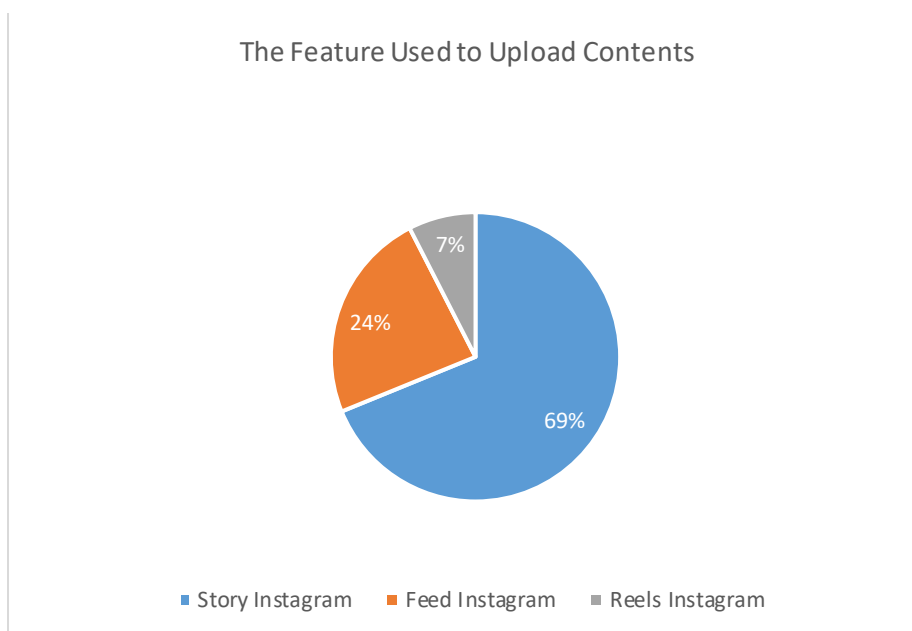

Figure 7 The Feature Used to Upload Contents
Source: Primary Data

The next figure (Figure 8) shows data about the content shared by respondents. Majority of respondents state that they share their child's activities, which includes playing activity, meal time, school time, praying, reading books, and others. Even though those activities dominate the posts they share, some of the respondents still share their child's personal data, such as name, school name, and other personal data.
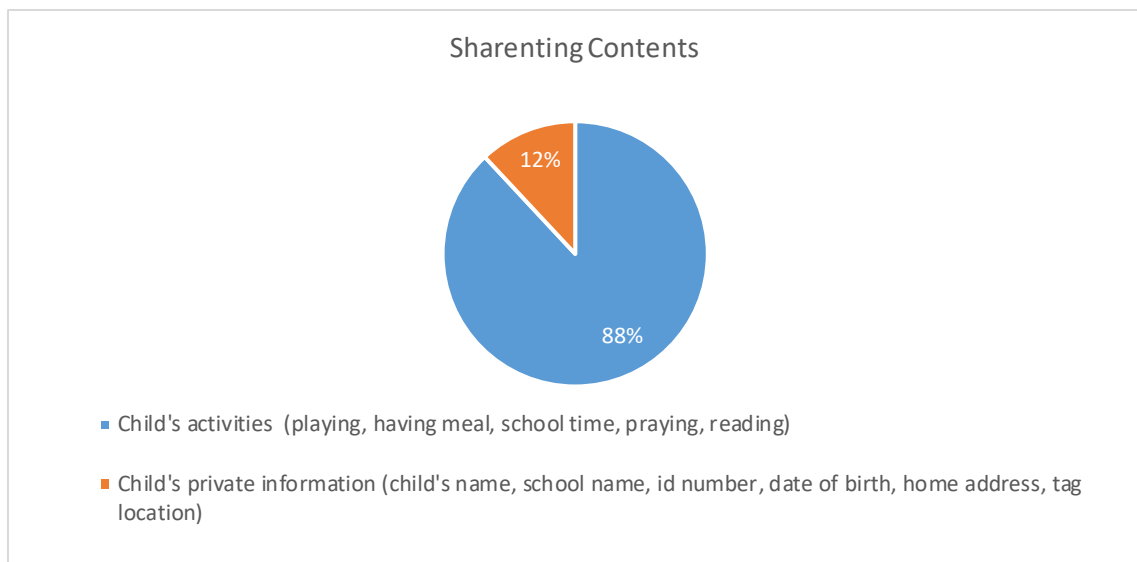
Sharenting Contents

Figure 8 Sharenting Contents
Source: Primary Data

As additional data, this research also finds that 57.3 % of respondents do not allow their child to have their own Instagram account. It means, the rest 42.7% still allow their child to have one, even though their child's age is still below the minimum age requirement in the application's policy.

According to the data above, this research finds that respondents' child also posts contents on Instagram (see Figure 9). The majority posts their activities, and some share personal data. In percentage, the children who share their personal data is 15%, which is higher than percentage of mothers who share their child's personal data (12%). It means that children are more vulnerable to share their own personal data in social media than their parents.
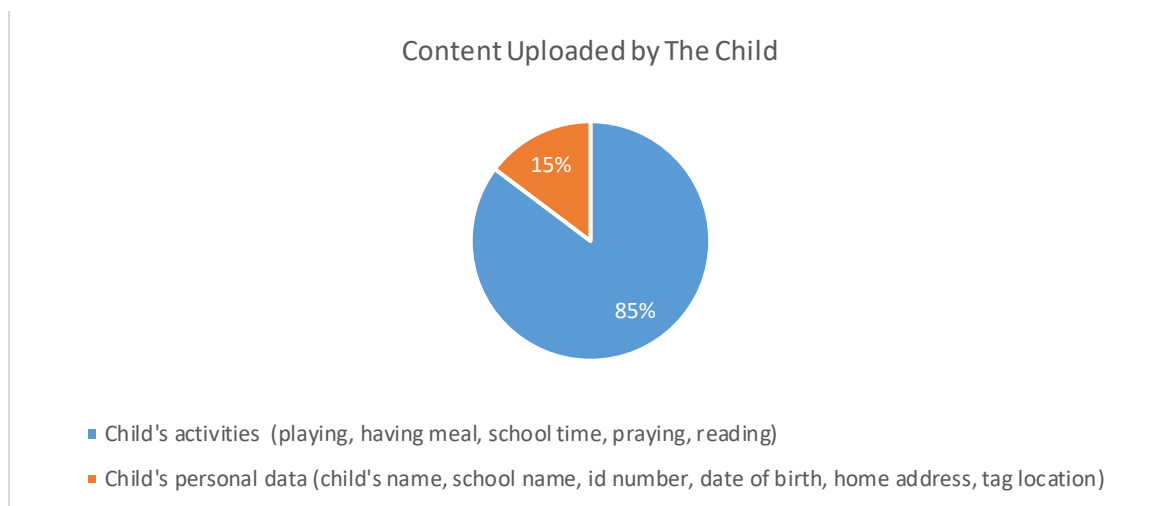
Content Uploaded by The Child

Figure 9 Content uploaded by the child
Source: Primary Data

From the processing of X variable, mothers' safety competency in table 8, it can be seen that there are some safety indicators that some of mothers do not practice.

Table 8 Mothers' safety competencies Data

No	Mothers' Safety Competencies	Frequency	Percentage
1.	Using password/fingerprint/face recognition for smartphone	372	97%
2.	Know how to activate personal mobile phone quota	358	93%
3.	Using combination of letters, numbers, and symbols for their Instagram account's password	354	92%
4.	Able to use BLOCK and RESTRICTED feature in Instagram to accounts that they consider dangerous and disturbing for themselves and their child	350	91%
5.	Know about the feature to save the Instagram password in personal device, but choose not to use it for security reason	338	88%
6.	Avoid to show child's personal information, such as name, date of birth, ans name of school in Instagram posts	336	87%
7.	Always re-check Instagram posts to make sure there is no personal data shown.	327	85%
8.	Actively log out from Instagram account	192	50%
9.	Avoid to show child's face in Instagram posts.	173	45%
10.	Deactivate comments in Instagram to avoid negative comments from others.	159	41%

Source: Primary Data

From the table above, there are three indicators in safety competencies which are ignored by most mothers, namely (1) do not log out from Instagram account, which will reduce the risk of hacking, and data and account theft, (2) to show child's face in Instagram sharenting posts, which means they ignore the risk of child's photo theft and the recognition of minors' face by strangers, and (3) do not deactivate comments in Instagram to avoid negative comments from others, which means that the mothers do not mind reading or receiving negative comments from their Instagram followers (or not) on their sharenting contents that may affect the emotional health of mothers and children. However, the majority of mothers have fulfilled seven other indicators (more than 80%) which means that mothers already have sufficient security competencies to protect themselves and their children in the digital world, in this case Instagram.

Meanwhile, from the risk perception variable, the data are categorized into low, moderate, and high with the following categorization and results

Table 9 Categorization of Risk Perception

Categories	Range	Frequency	Percentage
Low	Y<16	6	2%
Moderate	16<Y<24	62	16%
High	Y<24	317	82%

Source: Primary data

The data in table 9 shows that mothers in this research have high risk perception regarding child's privacy in Instagram (82%). It means that mothers realize the possibilities of privacy breach in Instagram that can target their child or device, such as personal data and photo theft, bullying, or technical problem like hacking. Only six respondents (2%) who have low risk perception regarding child's privacy in Instagram. It means that these six respondents have low concern about the possibilities of privacy breach in Instagram that can target their child or device, such as personal data and photo theft, bullying, or technical problem like hacking.

Hypothesis testing

Spearman test shows the value of 0.005 for the Sig (2-tailed). It means that the correlation between mothers' safety competency and risk perception regarding child's privacy is positively significant at the level of 5% or 0.05 although the degree of the relationship can be said to be very weak because the correlation coefficient is only 0.144.

It means that the safety competency factor only correlates 14.4% with the mothers' risk perceptions of children's privacy. Another factor of 85.6% is not seen in this study. Although the correlation is very weak, it is proven that there is a correlation between the two variables so that the alternative hypothesis is accepted.

Discussion

Communication Privacy Management (CPM) is a theory about privacy management system in the context of communication, particularly interpersonal communication. It has three main concepts: privacy ownership, privacy control, and privacy turbulence (Griffin et al., 2019). Even though this theory mainly focuses on interpersonal communication, in recent studies this theory is also used in the context of communication in social media (de Wolf, 2020).

Privacy ownership refers to ownership of information of an individual that does not belong to someone else. The data shows that 57.3% mothers in this research feel entitled to children's privacy. It is shown by 57.3% of mothers can freely post children's activities and private information in Instagram, while the children are not allowed to have an Instagram account to manage their own privacy nor information that they want to or do not want to share. It means that, mothers one-sidedly involve themselves to be the co-owner of the child's privacy. However, this phenomenon is one of the characters of sharenting, which includes the desire to share the daily life of the family, (Garmendia, Martínez, & Carmelo, 2021).

Referring to netnography research about sharenting with hashtag #Anakku by Amanda Dwiarsianti, there are five categories of sharenting posts, namely, children's daily activities at home, children's activities outside, pregnancy and children's growth, children's academic activities, and endorsement/children model (Dwiarsianti, 2022, p. 11). Dwiarsianti finds that majority of content is , children's daily activities at home (279 posts out of 640) and children's activities outside (256 posts out of 640). Accordingly, this research also finds that most of mothers upload their children's activities.

In terms of child's age (see Figure 3), mother in this research has child from age 1 to 12 years old, in which 42.7% of them have Instagram account, where they can share their own activities and privacy data. This shows that age is not significantly relate to children's willingness to share their own private information. The data also explains mothers have the power to post information or children's activities regardless the children's age. So that children's privacy information may become collective privacy, which is owned collectively with those who see posts in mother's Instagram Story, Reels, and Feeds.

From this data we also understand that the child as the private information owner does not create the collective privacy boundary, but the mother does. Collective privacy boundary is a concept that refers to "An intersection of personal privacy boundaries of co-owners of private information, all of whom are responsible for the information" (Griffin, Ledbetter, & Sparks, 2019, p. 148). In this sense, mothers should also take the responsibility to guard children's privacy against irresponsible parties.

The form of child privacy protection in this research can be seen from several points: (1) majority of mothers choose to post children activities (89,1%) than children's private information, like id number, name, or date of birth (13%); (2) The number mothers who avoid to show their child's face in Instagram are only 45%, (3) Majority of mothers choose to avoid showing child's private information like name, date of birth, and school name (87%), (4) Majority of mothers always re-check the content they intend to post in Instagram to make sure there is no private information included (85%), and (5) Majority of mothers (91%) use the Block dan Restricted feature to other accounts that are considered dangerous or disturbing to them and their child.

Those five points show that majority of mothers have created collective privacy boundary for their child. Although, there are still more mothers who choose to keep showing their child's face in their Instagram sharing posts. Moreover, there is still 10,9% mothers still post child's data, 55% mothers show their child's face in the Instagram content, and 12,4% mothers show their child's private information, also 15% mothers do not re-check their content before posting, and last there's 9% mothers who do not use block dan restricted feature to the disturbing and dangerous accounts.

The data in table 8 can also be elaborated on the research of Nur Rafiza Putri and colleagues (2019). which explains that there are six stages in sharing, namely: documentation, choosing, editing, captioning, uploading, and getting responses (Putri, Harkan, & Khairunnisa, 2019, p. 785).

The ninth point of the mother's safety competencies is in the choosing stage. In the choosing stage, mother chooses a photo or video to post. From the research of Putri and colleagues, there are informants who do not want to upload photos with their children's faces so they choose not to upload any photos with their children's face (Putri et al., 2019, p. 785). Meanwhile in this research, only 45% of respondents in the choosing stage decide not to choose photos or videos that show their children's faces.

Putri and colleagues' research also shows that there is a stage of getting response. This stage refers to the stage where mothers get a response from their followers from their sharenting posts (Putri et al., 2019, p. 786). The data of this study shows that there are 41% of mothers who deactivate the comment field to avoid negative comments. Thus, 41% of the respondents only have five stages of sharenting, while the other 59% complete the six stages of sharenting. It can also be interpreted that 59% of mothers in this research, who do not turn of the

comments in their Instagram posts to avoid negative comments might experience privacy turbulence from negative comments.

From the correlation test result we know that the safety competency factor only correlates 14.4% with the mothers' risk perceptions of children's privacy. Another factor of 85.6% is not seen in this study. Although the correlation is very weak, it is proven that there is a correlation between the two variables so that the alternative hypothesis is accepted.

Other research show that security variable about privacy is not factor that are closely related to their awareness of uploading photos or videos about children. The research of Ranzini, Newlands, and Lutz (2020) shows that the high variable of parental concern about general and situational privacy issues does not make sharenting activities less frequent on Instagram. The results of the study reject the hypothesis that (1) parents who have privacy concerns in general are less likely to do sharenting, and (2) parents who have situational privacy concerns tend to do less sharenting (Ranzini, Newlands, & Lutz, 2020, p. 9). This means that security awareness about privacy issues is not a determining factor for parents to be more careful or limit their sharenting activities.

On the other hand, research by Ranzini and colleagues find factors that support parental sharing, namely (1) parents who frequently upload general content on Instagram tend to do sharenting more frequently, and (2) parents who receive support from friends or family. for sharenting tend to do it more often (Ranzini et al., 2020, p. 9). The researcher assumes that these two factors explain why the data of this study indicate that there is a relationship between parental safety competence and the risk perception of child's privacy in sharenting, even though it is very weak. However, it still needs to be further proven with the subject of this study.

CONCLUSION

This research aims to answer the following question: How does the relationship between mother's safety competencies and risk perception of children's privacy in 'sharenting' activities? We use quantitative research method using survey to measure the relationship between independent and dependent variables. Subjects in this research are 385 mothers in East Java Province., who have child under 13 years old, in accordance with Instagram's age restriction policy.

The form of child privacy protection in this research can be seen from several points: (1) majority of mothers choose to post children activities (89,1%) than children's private information, like id number, name, or date of birth (13%); (2) The number mothers who avoid to show their child's face in Instagram are only 45%, (3) Majority of mothers choose to avoid showing child's private information like name, date of birth, and school name (87%), (4) Majority of mothers always re-check the content they intend to post in Instagram to make sure there is no private information included (85%), and (5) Majority of mothers (91%) use the Block dan Restricted feature to other accounts that are considered dangerous or disturbing to them and their child.

The statistic test shows the safety competency factor only correlates 14.4% with the mothers' risk perceptions of children's privacy. Another factor of 85.6% is not seen in this study. The very weak relation between mothers' safety competency and their risk perception of child's privacy in this research shows that there are many other factors that can be explored in the future research. For example, to explore qualitatively, mothers' consideration in doing sharenting activities if they are willing to set aside their risk perception on their child's privacy.

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