

# Analysis of Social Capital on Pregnant Woman Perception in Primary Prevention Stunting

Eko Mindarsih<sup>1(())</sup>, Muhammad Akhyar<sup>2</sup>, Budiyanti Wiboworini<sup>3</sup>, and Suminah<sup>4</sup>

<sup>1</sup> Doctoral Program of Extension and Community Empowerment, Postgraduate School of Sebelas Maret University, Surakarta, Central Java, Indonesia mindarsiheko@respati.ac.id

<sup>2</sup> Faculty Teacher Training and Education, Sebelas Maret University, Surakarta, Central Java, Indonesia

<sup>3</sup> Faculty of Medicine, Sebelas Maret University, Surakarta, Central Java, Indonesia

<sup>4</sup> Faculty of Agriculture, Sebelas Maret University, Surakarta, Central Java, Indonesia

Abstract. Stunting results in the low quality of human resources and causes intergenerational poverty. Efforts to accelerate stunting reduction require the involvement of all elements of society, which is known as social capital. The social capital approach can change the perception of pregnant women in the effort to prevent primary stunting. This study to analyze the effect of social capital on of pregnant women perception in primary prevention of stunting. This is a quantitative explanatory survey with a cross-sectional approach. Sampling using proportional random sampling. Performed on pregnant women in the second and third trimesters with a total sample of 220 respondents. The instrument uses a questionnaire. The questionnaire was tested for content validity on 12 experts, using Aiken's V CVI (Content Validity Index). Analysis with a simple linear regression test used the Lisrel program SEM analysis. There is a significant and positive effect between social capital, on pregnant woman perception in primary prevention stunting, the T-value of 10.21 is greater than 1.96. The social capital variable is influenced by the perception variable  $R^2$  by 61%. Model fit with Chi-Square = 1.440, RMSEA = 0.070, p-value = 0.094, GFI = 0.980, AGFI = 0.980, NFI = 0.970. Social capital variable has a significant and positive effect on the variable pregnant woman perception in primary prevention stunting.

Keywords: Social Capital · Perception · Stunting · Pregnant Women

### 1 Introduction

Globally stunting is experienced by 21.3% of the world's total population of children under five, or equivalent to 144 million children under five. The percentage decrease in the average number of stunting under-fives each year is only 0.55% [1]. The latest survey shows that 3 out of 10 children under five in Indonesia are stunted [2]. Indonesia is ranked the fourth largest and the second highest in Southeast Asia at the global level. Its prevalence will reach 31.8% in 2020 [3]. Factors causing stunting in Indonesia include a) parenting practices b) limited access to quality Ante Natal Care and Post Natal Care

services; c) Lack of nutritional intake during pregnancy; d) infectious diseases; e) babies born prematurely; f) low birth weight (LBW); there is still a lack of access to nutritious food because it is quite expensive and lacks access to clean water and sanitation, [4]. According to a report from the World Bank, the potential loss due to stunting is 2-3% of the Gross Domestic Product (GDP). If Indonesia's GDP is IDR 13,000 trillion, then the loss is IDR 1430 trillion [5]. Efforts to accelerate stunting reduction require the involvement of all elements of society, both government and non-government. The involvement of all elements of society is a form of social capital that can indirectly be a solution for reducing stunting rates. Social capital can improve the quality of human resources in the community through trust that encourages people to develop reciprocal relationships which are reflected in the attitude of helping, caring for each other, and giving and receiving each other [6]. Perception is one of the important psychological aspects to respond to various aspects of life. Someone will carry out the behavior through several processes, starting with awareness from perception first, then being interested and considering this new thing. Then try and then be able to adapt to new behavior according to his perception. Healthy behavior is determined by perceptions about the disease and the means available to avoid the occurrence of a disease. The perception of pregnant women will influence the mother's behavior in preventing stunting. The social capital approach can change perceptions. Optimal partnership in these elements can be a strength of social capital. The synergy of all social capital can be done by increasing social participation which can promise very effective health promotion [7].

#### 2 Method

Research design: Based on the objective, this research is a descriptive explanatory survey with a quantitative survey with a cross-sectional approach. The sampling technique was carried out using proportional random sampling. Sampling was carried out from members of the population of pregnant women from 12 sub-districts, each sub-district had proportional representation. The number of samples is 220 respondents. This research was conducted in the Kulon Progo Regency, D.I Yogyakarta. Implementation of data collection from August to September 2022. The population in this study were all pregnant women in the second and third trimesters who met the inclusion and exclusion criteria. Inclusion criteria; a) Pregnant women in the second and third trimesters; b) Pregnant women in the Kulon Progo district; c) Able to communicate well; d) Willing to be a respondent. Exclusion criteria were pregnant women who were sick at the time of the study. The instrument in this research uses a questionnaire. The questionnaire was tested for content validity on 12 experts, using Aiken's V CVI (Content Validity Index). The reliability test used Cronbach Alpha. Analysis with simple linear regression test using SEM analysis program Lisrel. Researchers analyzed the effect of social capital on the perception of pregnant women about the primary prevention of stunting. The steps are; a) enter data in the excel program; b) perform a descriptive test of respondent identity, c) perform CFA test, d) perform normality test; e) evaluate the goodness of fit, and f) perform hypothesis testing.

Research variables and indicators (Table 1).

Latent Variables		Indicator	
Exogenous	Social capital (X1)	X1.1 = bonding X1.2 = bridging X1.3 = lingking X1.4 = communication	
Endogenous	Perception of pregnant women regarding primary prevention of stunting (Y1)	Y1.1 = Absorption Y1.2 = Understanding Y1.3 = Evaluation	

 Table 1. Research variables and indicators

### **3** Results

#### 3.1 Univariate Analysis

**Characteristics of Respondents.** This research was conducted on 220 respondents with the characteristics in Table 2.

Based on Table 2, it can be concluded that the characteristics of respondents are based on age, the majority are >20-35 years old (80.4%). The most characteristic based on education was SMA (67.7%), the most occupation characteristic was working as IRT (44.4%), and the most gestational age was in the third trimester of 127 (57.7%).

#### **Research Variable**

Based on Table 3 shows that the variables of social capital and perceptions of pregnant women are in a fairly good category.

#### 3.2 Bivariate Analysis

**CFA Test.** Researchers conducted the CFA test, and the test results showed that all of the standardized loading factor coefficients had all exceeded the required cut-off value, 0.05, this indicates that each indicator has been able to measure the constructs used in the study. As shown in Fig. 1 and Table 4.

**Normality Test.** Then the normality test was carried out, the normality test was normally distributed if the p-value of Skewness and Kurtosis was > 0.05. In this study, it was 0.070 so the data was normally distributed.

**Evaluation of the Goodness of Fit.** Furthermore, an evaluation of the goodness of fit with the results of the fit model is carried out, this can be seen in the criteria as shown in Table 5.

**Hypothesis Testing.** The results of the hypothesis test of the effect of social capital on the perception of pregnant women about the primary prevention of stunting showed a positive effect, as shown in Table 6.

Based on the structural equation from Table 6, it can be explained that the social capital variable with a Standardized Coefficient value of 0.78 and a t-value of 10.21

Characteristics	Frequency (f)	Percentage (%)
Age:		,
<20 years	4	1,8
20–35 years	190	80,4
>35 years	26	11,8
Total	220	100
Education level:		I
Primary school	9	41,1
Junior high	25	11,4
Senior high	149	67,7
D3	12	5,5
S1	25	11,4
Total	220	100
Occupation:		,
Civil servant	8	3,6
Private	70	31,8
Self-employed	25	11,4
Farmer	18	8,2
IRT	91	41,4
Other	8	3,6
Total	220	100
Gestational Age:		
Second Trimester	127	57,7
Third Trimester	93	42,3
Total	220	100

 Table 2. Descriptive analysis of respondents' characteristics based on age, education, occupation, and gestational age.

Table 3. Descriptive analysis of social capital variables and maternal perceptions based on respondents' data scores.

Variable	Score	Category
Social capital	102,4–113	Fairly good
Perception	59–65	Fairly good

indicates that the social capital variable has a positive effect on the perception of pregnant women about the primary prevention of stunting. This means that if the social capital variable increases, the perception of pregnant women will also increase. According to Table 6, it can be seen that the value of  $R^2$  (coefficient of determination) for the relationship equation is 0.61. The value of  $R^2$  serves to show how far the exogenous

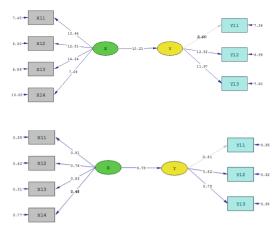


Fig. 1. Path diagram

Table 4.	Test results	of standardized	loading	factor an	d t-value on	each variable.
----------	--------------	-----------------	---------	-----------	--------------	----------------

Latent variable	Indicator	Standardized loading factor (SLF) $\ge$ 0,50	t-value	Description
Social capital (X1)	X1.1 = bonding X1.2 = bridging X1.3 = lingking X1.4 = communication	0,81 0,76 0,83 0,68	13,64 12,51 14,24 7,06	valid valid valid valid
Perception of pregnant women (Y1)	Y1.1 = Absorption Y1.2 = Understanding Y1.3 = Evaluation	0,81 0,82 0,78	20,00 12,52 11,97	valid valid valid

Goodness of fit	Criteria	Result	Decision
Chi-Square	<2	1,440	Fit
RMSEA	≤0,08	0,070	Fit
p-value	>0,05	0,094	Fit
GFI	>90	0,980	Fit
AGFI	>90	0,980	Fit
NFI	>90	0,970	Fit

Exogenous variable	Standardized Coefficient	t-value	Description	<b>R</b> <sup>2</sup>
X1	0,78	10,21	Significance	0,61

**Table 6.** Structural equations of research variables, the effect of social capital on perceptions of pregnant women.

variable can explain the endogenous variable. So it can be concluded that perception is influenced by social capital by 61% and the rest is influenced by other factors that have not been studied in this study.

#### 4 Discussion

Based on the descriptive analysis of social capital variables and perceptions of pregnant women, the score is in the fairly good category. This indicates that respondents have a fairly good view of social capital based on bonding, bridging, linking, and communication. Where there are elements of trust, norms, and networks. Social capital is the potential that exists in a society that is formed from the results of interactions in a community that gives birth to emotional bonds in the form of trust, adherence to values and norms, as well as social networks, to achieve common goals and benefits. This is in line with research related to health promotion based on social capital [8]. Social capital can be formed from social relations between individuals, so the amount of social capital closeness depends on the social capabilities of individuals. Social capabilities play an important role in stunting prevention efforts. This causes social capital to be considered an adhesive that allows other development capital to work effectively and efficiently. While the perception of pregnant women is in the fairly good category, this indicates that the respondents can absorb, understand and evaluate the primary prevention of stunting with a fairly good perception. Perception is a communication process because if perception is not accurate, then communication is not effective. It is the perception that determines whether someone chooses one message and conveys another message. The higher the degree of similarity in perception between individuals, the easier and more frequent it is to communicate [9]. Based on the above theory, it is very clear that perception cannot be separated from communication. Perception is essentially a cognitive process experienced by everyone in understanding information about their environment. The environment in this case is the environment of the family, neighbors, and health workers as well as religious and community leaders. Based on statistical tests, it was found that there was an effect of social capital on the perception of pregnant women. This means that if the social capital variable increases, the perception of pregnant women will also increase. This proves that the social capital of bonding, bridging, linking, and communication is an important factor in the formation of perceptions of pregnant women. This is following previous research, there is a significant relationship between social capital and perception [10]. It is generally described that social capital has a positive effect on health [11]. Communities with higher/stronger levels of social capital (especially in social participation and networks) tend to have healthy perceptions

and behaviors, and also feel healthier both physically and psychologically [12]. Based on this, pregnant women with fairly good social capital will tend to have good perceptions as well. Through trust, norms, social networks, and informal and formal communication, social capital helps pregnant women to access health information that will affect their positive perception of the primary prevention of stunting.

## 5 Conclusion

The variables of social capital and perceptions of pregnant women have scored in the fairly good category. The social capital variable has a significant and positive effect on pregnant women's perceptions of primary stunting prevention, amounting to 61% and the rest is influenced by other factors that have not been studied in this study.

# References

- 1. RI K. Buku Komunikasi stunting: strategi dan aksi. Pusat Data Dan Informasi Kesehatan. (2018).
- 2. Kemkominfo. Buku Komunikasi stunting: strategi dan aksi. Ditjen Informasi dan Komunikasi Publik. (2020).
- 3. Bank. AD. Prevalence Stunting Among Children under 5 Years. (2020).
- 4. BKKBN. Panduan Pendampingan Bagi Ibu Hamil dan Keluarga Balita Dalam Percepatan Penurunan Stunting 2021.
- 5. Kesehatan PDDI. Situasi Balita Pendek (Stunting) Di Indonesia. Kemenkes RI. (2018).
- 6. Gambetta D.: Trust: Making and Breaking Cooperative Relations. Department Sociology, University of Oxford (2000).
- Maame Kissiwaa Amoah, V., Anokye, R., Boakye, D. S., Gyamfi, N.: Perceived barriers to effective therapeutic communication among nurses and patients at Kumasi South Hospital. Cogent Medicine 5(1), 1459341 (2018).
- Kasjono, H. S., Kartono, D. T., Lestari, E.: Social capital based health promotion for eliminating dengue mosquito breeding places in Bantul District Yogyakarta. Int Conf Heal Well-Being, 187–97 (2016).
- 9. Ban, A.W. van den; Hawkins HS. ADH. Penyuluhan pertanian. (1999).
- Kusuma, A. R., Adriansyah, M. A., Prastika, N. D.: Pengaruh daya juang, kecerdasan emosional, dan modal sosial terhadap organizational citizenship behavior dengan persepsi keadilan organisasi sebagai variabel moderasi. Psikostudia: Jurnal Psikologi 2(2), 100–116 (2013).
- 11. Murayama, H., Fujiwara, Y., Kawachi, I.: Social capital and health: a review of prospective multilevel studies. Journal of epidemiology 22(3), 179-187 (2012).
- Nieminen, T., Prättälä, R., Martelin, T., Härkänen, T., Hyyppä, M. T., Alanen, E., Koskinen, S.: Social capital, health behaviours and health: a population-based associational study. BMC public health 13(1), 1-11 (2013).

**Open Access** This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (http://creativecommons.org/licenses/by-nc/4.0/), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

