

Subjective Well-Being and Material Deprivation During COVID-19 Pandemic: A Study in Children and Adolescents in Indonesia

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Abstract. This study aimed to investigate the contribution of material deprivation on the subjective well-being (SWB) of children and adolescents aged 10-18 years old during COVID-19 in Indonesia. Participants ($N = 3,094$; 54.3% girls; 53.2% high school students) were children and adolescents from 33 provinces in Indonesia with mean age = 15.39. Convenience sampling was used in this study, of which data were collected using internet-based questionnaires. SWB was measured using three SWB scales: Children's Worlds Subjective Well-Being Scale (CW-SWBS), Overall Life Satisfaction (OLS), and one item measures subjective material well-being. Material deprivation was measured by participants' reports on their accessibility to necessities they need in life. Participants were further asked whether they were worried about their family's money and access to have food to eat each day. Data were analyzed using linear regression, and descriptive statistics using crosstabs, Chi Square and ANOVA. Linear regression analysis results showed that material deprivation significantly contributed to lowering SWB scores, lack of access to have food to eat each day, and worrying about family's money. Participants who experienced material deprivation reported lower SWB scores than those who experienced non-material deprivation. Girls reported lower SWB scores than boys, while older participants reported lower SWB scores than the younger ones. Results are discussed using Cummins' theory of SWB homeostasis. It is suggested that parents play a role as a buffer to assist children and adolescents in adapting to the adverse situation during pandemic COVID-19.

Keywords: adolescents; children; COVID-19; material deprivation; subjective well-being

The COVID-19 pandemic posed severe problems for the health system of many countries and negatively affected their economic systems, including Indonesia. Indonesia's poverty rate increased in March 2020 to 9.78% from 9.41% in September 2019 (World Food Programme, 2020a). In June 2020, 6,4 million Indonesians lost their jobs, and 4,86 million fell into poverty (Reuters Staff, 2020); this is the highest in a decade (World Food Programme, 2020b).

Studies on the impact of the pandemic on poverty mainly focused on adults. However, from previous economic crises, we know that children also experience the effect of their parents' job loss and falling into poverty. Children are more likely to be victims to other negative consequences of poverty than any other age group (UNICEF, 2020). Child poverty is already the most extensive threat to child health and quality of life (QoL) (UNICEF, 2020). UNICEF (2021) reported that the poverty rate for Indonesian children during the pandemic rose by 14%. WFP estimated rising acute food

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insecurity during the pandemic from 135 to 265 million worldwide (World Food Programme, 2020b). Food security is conceptualized as availability, access, and utilization (Barrett, 2010). Availability is determined by the level of food production and stock levels (Barrett, 2010). Access reflects the food distribution, while utilization reflects concern about whether individuals make good use of the food they have access to (Barrett, 2010). These situations put Indonesian children into vulnerability during the pandemic due to a lack of access to food and several necessities due to poverty.

In Indonesia, child poverty is normally measured using household surveys based on adults' reports on their income, consumption, and material deprivation (UNICEF, 2017). Several studies of children's SWB also were measured by adults' reports on their income (Knies, 2011; Rees et al., 2012). However, these studies cannot find significant relationships between children's poverty as reported by adults and children SWB (Knies, 2011; Rees et al., 2012). Several studies investigated whether children's SWB is not related to poverty or adult's reports on child poverty are not a valid representation of child poverty (Main & Bradshaw, 2012). Several studies revealed that it is essential to ask children about their perception of material well-being, poverty, and their experience of material deprivation rather than ask parents and adults about these issues (Borualogo & Casas, 2021a; Gross-Manos & Ben-Arieh, 2017; Kaye-Tzadok et al., 2017).

Material deprivation explains the ownership of items regarded as necessities by most of the population (Willitts et al., 2006). Children are classified as materially deprived if they lack some of the necessary items that a majority of the population can afford (e.g., foods, clothes in good condition, pocket money) (Willitts et al., 2006). Children's Worlds (www.isciweb.org) has included material deprivation as a domain in children's subjective well-being (SWB) (Rees et al., 2020). Several studies investigated the relationships between children's SWB and their material situation (Gross-Manos & Ben-Arieh, 2017; Main & Bradshaw, 2012; Main et al., 2019). A study using Children's Worlds survey covering 15 diverse countries of four continents (Asia, Africa, Europe, and South America) showed a significant relationship between material deprivation and SWB (Main et al., 2019). Another aligned study in Israel showed that material deprivation is negatively associated with children's SWB (Gross-Manos & Ben-Arieh, 2017). This study approach is relatively new in the Indonesian context. Only one study presented the SWB of Indonesian children from the perspective of material well-being (Borualogo & Casas, 2021a).

To understand how children manage their level of SWB, (Cummins, 2014) proposed a theory of SWB homeostasis that analogizes SWB to the homeostatic maintenance of body temperature. Cummins (2014) stated that the setpoints of SWB range from 60 to 90 when projected into a 100-point scale. The mean of SWB is 75. To protect SWB homeostatically, Cummins (2014) explained three buffers, which are behavior (as an internal buffer), and relationship and money (as the external buffers). Internal buffer protects SWB by altering how the person sees themselves concerning homeostatic challenges (Cummins, 2014). The person's cognitive evaluation of their life assists them to find the meaning of adverse events in life or regarding the negative events as unimportant to adapt to the unpleasant situations (Cummins, 2014). Relationship is the most powerful external buffer that involves mutual sharing of intimacy and support (Cummins, 2014). As an external buffer, money protects SWB through

its use as a highly flexible resource that allows people to defend themselves against the unpleasant environment (Cummins, 2014).

Although several studies have revealed the contribution of material deprivation to children’s SWB, limited studies investigated children’s SWB from the perspective of material well-being and material deprivation during the pandemic. This study aimed twofold: 1) to examine the state of SWB among Indonesian children, lack access to food for consumption each day, worry about family’s money, and material deprivation, and 2) to investigate the contribution of material deprivation on children’s SWB during the pandemic in Indonesia.

Method

Sample

This study used convenience sampling of Indonesian children and adolescents from 10 to 18 years old. This non-probability sampling technique is possible for online survey designs, especially in the COVID-19 pandemic, to get quick results through data collection using social media and online platforms (Etikan, 2016; Pierce et al., 2020). The link to Google Form was sent to parents in 34 provinces in Indonesia. Samples from 33 provinces submitted the answer to Google Form, and no submitted answer received from North Maluku Province. Details of the list of provinces with numbers of samples is presented in Table 1.

This study used convenience sampling and did not target minimum sample size from each province. Therefore, the number of participants from each province was not equal. Majority of participants were from West Java Province (56.9%).

Table 1
Participants of Studies by The Origin of The Province in Indonesia

	<i>n</i>	<i>%</i>
Nanggroe Aceh Darussalam	6	0.2
North Sumatera	44	1.4
West Sumatera	19	0.6
Riau	20	0.6
Kepulauan Riau	15	0.5
Jambi	27	0.9
South Sumatera	32	1.0
Bangka Belitung	4	0.1
Bengkulu	12	0.4
Lampung	49	1.6
Special Area of the Capital Jakarta	197	6.4
West Java	1,759	56.9

Table 1 (Continued)

Participants of Studies by The Origin of The Province in Indonesia

	<i>n</i>	%
Banten	150	4.8
Central Jawa	248	8.0
Special District Yogyakarta	72	2.3
East Java	290	9.4
Bali	30	1.0
West Nusa Tenggara	6	0.2
East Nusa Tenggara	2	0.1
West Kalimantan	7	0.2
Central Kalimantan	12	0.4
South Kalimantan	16	0.5
East Kalimantan	26	0.8
North Kalimantan	2	0.1
North Sulawesi	3	0.1
West Sulawesi	4	0.1
Central Sulawesi	2	0.1
Southeast Sulawesi	1	0.0
South Sulawesi	31	1.0
Gorontalo	2	0.1
Maluku	2	0.1
North Maluku	0	0.0
West Papua	1	0.0
Papua	3	0.1
Total	3,094	100

The sociodemographic data were presented in Table 2 where 54.3% of the participants were girls, and 53.2% were high school students. The average age was 15.39 (*SD* = 2.15).

Table 2

Characteristics of Participants

	Girls		Boys		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Elementary students	43	1.4	260	8.4	303	9.8
Middle school students	509	16.5	443	14.3	952	30.8
High school students	1,037	33.5	608	19.7	1,645	53.2
University/College students	90	2.9	104	3.4	194	6.3

Table 2 (Continued)

Characteristics of Participants

	Girls		Boys		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Total	1,679	54.3	1,415	45.7	3,094	100

Procedure

Ethical Clearance

Approval for the study was gained from the ethical committee at Nusantara Scientific Psychology Consortium (Konsorsium Psikologi Ilmiah Nusantara; K-PIN). Written consent from parents was obtained on behalf of the students that was embedded in the Google Form. The students were informed that they were free not to answer the questions and that their data will be treated confidentially. Children’s and adolescents’ written consent was also obtained after clicking the Google Form button with agreement to participate.

Instruments

All instruments used in this study were adapted in the Indonesian context following guidance from Borualogo et al. (2019). Children also were asked to indicate their gender, age, and school grade.

Children’s Worlds Subjective Well-Being Scale (CW-SWBS)

Children’s Worlds Subjective Well-Being Scale (CW-SWBS) is a 6-item context-free psychometric scale (Rees et al., 2020). CW-SWBS was adapted and showed excellent validation to use in Indonesia with five items (Borualogo & Casas, 2019a); we named it CW-SWBS5. Details about the process of translation and adaptation of the CW-SWBS can be read in articles written by Borualogo and Casas (2019a) and Borualogo et al. (2019).

The items are: 1) ‘I enjoy my life’, 2) ‘My life is going well’, 3) ‘I have a good life’, 4) ‘The things that happen in my life are excellent’, and 5) ‘I am happy with my life’. The items use an 11-point scale from 0 = Not at all agree to 10 = Totally agree.

The CW-SWBS showed excellent fit where fit indices are as follows: $\chi^2 = 94.58$, $df = 5$, $p = 0.000$, comparative fit index (CFI) = 0.988, and (RMSEA) = 0.049 (0.041–0.058) (Borualogo & Casas, 2019a). For this sample, the Cronbach’s Alpha = 0.972

Overall Life Satisfaction (OLS)

The OLS is a single-item psychometric scale used to measure how satisfied children and adolescents are in their evaluations of their life as a whole (Rees et al., 2020). The OLS is an 11-point-scale from 0 = Not at all satisfied to 10 = Totally satisfied.

Subjective Material Well-being

A single item asked, "How satisfied are you with all the things you have?" was used to measure subjective material well-being. It is an 11-point-scale from 0 = Not at all satisfied to 10 = Totally satisfied.

Participants were also asked how often they were worried about how much money their family has and whether they have enough food to eat each day. These questions used a 4 point-scale (1 = Never, 2 = Sometimes, 3 = Often, 4 = Always) (Borualogo & Casas, 2021a).

Material Deprivation

Material deprivation was measured through a set of questions about children's access to clothes that are in good condition, enough money for school trips and activities, internet access at home, equipment/items for sports and hobbies, pocket money that they can spend freely, two pairs of shoes in good condition, a mobile phone, and equipment they need for school. Children who answered "Yes" to all 8 of these questions were considered not experiencing material deprivation (Borualogo & Casas, 2021a). Children who answered "No" to at least one of these questions were considered as experiencing material deprivation (Borualogo & Casas, 2021a).

Data Analysis

Sociodemographic data were analyzed using crosstabs to classify participants of the study by their gender and school grades. Descriptive statistics of frequency of having enough food to eat each day and worry about family's money situation by gender, school grades, and material deprivation were analyzed using Chi Square. Mean scores of CW-SWBS, OLS, and subjective material well-being by gender, school grades, and material deprivation were analyzed using ANOVA. Data were analyzed using linear regression to test the contribution of gender, school grades, and material deprivation to SWB of children (CW-SWBS, OLS, subjective material well-being), having enough food to eat each day during the lockdown, and worry about family's money during the pandemic. Descriptive statistics also calculated the frequency of having enough food to eat each day during the lockdown and worry about family's money during the pandemic by gender, school grades, and material deprivation. Descriptive statistics were also calculated to test the mean differences of CW-SWBS, OLS, and subjective material well-being by gender, school grades, and material deprivation. Data were calculated using SPSS 23.

Result

There were associations between material deprivation and having enough food to eat each day for both genders, material deprivation and worry about money for both genders, material deprivation and having enough food to eat each day for all school grades, and material deprivation and worry about money for all school grades. Table 3 showed this association indicating chi-square values are significant at $p < 0.01$ and $p < 0.05$ for several correlations.

Table 3
Frequency of Having Enough Food to Eat Each Day and Worry About Family's Money Situation by Gender, School Grades, and Material Deprivation.

			Material Deprivation		No Material Deprivation		Total		Chi-square
			<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	
Girls	Having enough food	Never	2	0.3	1	0.1	3	0.2	
		Sometimes	96	13.4	22	2.3	118	7.1	
		Often	169	23.7	115	12.1	284	17.1	
		Always	447	62.6	812	85.5	1,259	75.7	
Boys	Having enough food	Never	2	0.5	5	0.5	7	0.5	112.362*
		Sometimes	71	16.8	43	4.5	114	8.3	
		Often	132	31.3	161	16.8	293	21.3	
		Always	217	51.4	747	78.1	964	70.0	
Elementary students	Having enough food	Never	0	0.0	2	1.0	2	0.7	25.912*
		Sometimes	10	13.7	3	1.5	13	4.7	
		Often	20	27.4	32	15.5	52	18.6	
		Always	43	58.9	169	82.0	212	76.0	
Middle school students	Having enough food	Never	0	0	0	0	0	0	55.758*
		Sometimes	43	12.7	19	3.2	62	6.6	
		Often	98	28.9	105	17.5	203	21.6	
		Always	198	58.4	475	79.3	673	71.7	
High school students	Having enough food	Never	3	0.5	4	0.4	7	0.4	124.185*
		Sometimes	95	14.5	39	4.0	134	8.2	
		Often	167	25.5	118	12.1	285	17.5	
		Always	389	59.5	816	83.5	1,205	73.9	
University students	Having enough food	Never	1	1.4	0	0.0	1	0.5	30.562*

Table 3 (Continued)

Frequency of Having Enough Food to Eat Each Day and Worry About Family's Money Situation by Gender, School Grades, and Material Deprivation.

		Material Deprivation		No Material Deprivation		Total		Chi-square				
		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%					
Girls	Worry about money	Sometimes	19	27.1	4	3.2	23		11.9	138.303*		
		Often	16	22.9	21	16.9	37	19.1				
		Always	34	48.6	99	79.8	133	68.6				
	Never	48	6.9	119	13.1	167	10.4					
		Elementary students		Sometimes	221	31.9	483	53.2	704		44.0	
		Boys		Often	245	35.4	224	24.7	469		29.3	
Boys	Worry about money	Always	179	25.8	82	9.0	261	16.3	100.262*			
		Never	26	6.5	207	23.8	233	18.4				
			Middle school students		Sometimes	148	37.3	402		46.2	550	43.4
	Worry about money		Often	149	37.5	192	22.0	341		26.9	16.295*	
		Always	74	18.6	70	8.0	144	11.4				
		Never	7	10.4	44	23.9	51	20.3				
Elementary students	Worry about money		Sometimes	27	40.3	96	52.2	123	49.0	51.143*		
			Often	21	31.3	30	16.3	51	20.3			
		Always	12	17.9	14	7.6	26	10.4				
	Never	42	13.7	167	31.6	209	25.0					
		High school students		Sometimes	129	42.0	231	43.7	360		43.1	
		High school students	Worry about money	Often	88	28.7	97	18.3	185		22.1	161.534*
Always	48			15.6	34	6.4	82	9.8				
Never	22			3.4	102	10.8	124	7.8				
	University students		Worry about money	Sometimes	196	30.3	503	53.3	699	44.0	17.393*	
				Often	257	39.8	249	26.4	506	31.8		
Always				171	26.5	90	9.5	261	16.4			
Never		3	4.3	13	10.7	16	8.3					

Table 3 (Continued)

Frequency of Having Enough Food to Eat Each Day and Worry About Family's Money Situation by Gender, School Grades, and Material Deprivation.

	Material Deprivation		No Material Deprivation		Total		Chi-square
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	
	Sometimes	17	24.3	55	45.1	72	
Often	28	40.0	40	32.8	68	35.4	
Always	22	31.4	14	11.5	36	18.8	

*significant at $p < .01$; ** significant at $p < .05$

Percentages displayed in Table 3 were calculated within material deprivation. Although the percentages were small, there were boys (0.5%), girls (0.1%), elementary (1.0%), and high school students (0.4%) not experiencing material deprivation reported they never had enough food to eat each day during the lockdown. Table 3 showed that more boys (0.5%) reported never having enough food to eat each day than girls (0.2%). These results indicated that children still experienced a lack of access to food to eat each day during the lockdown, although they were not experiencing material deprivation.

The percentages of children who experienced material deprivation that reported sometimes not having enough food to eat each day during lockdown were higher compared to children who not experienced material deprivation. There were more boys (8.3%) than girls (7.1%), and more university students (11.9%) than other school grades reported sometimes had not enough food to eat each day during the lockdown. These results indicate that most children who experienced material deprivation also reported a lack of access to food to eat each day during the lockdown.

More girls (16.3%) than boys (11.4%) reported to be always worrying about family money. Girls (25.8%) and boys (18.6%) who experienced material deprivation reported to be always worry about family money, and 9.0% of girls and 8.0% of boys who did not experienced material deprivation reported always worry about family's money during the pandemic COVID-19. These results indicated that more girls were worried about family money than boys. Even though they did not experience material deprivation, they reported still worrying about their family's money during the pandemic.

Among school grades, more children who experienced material deprivation reported always worrying about their family's money during the pandemic than children who did not experience material deprivation. For school grade groups, more high school students (16.4%) reported always worrying about their family's money than middle school students (9.8%). The highest percentage among children who experienced material deprivation reported always worrying about family's money was university students (31.4%).

Table 4
Mean Scores of CW-SWBS, OLS, and Subjective Material Well-Being by Gender, School Grades, and Material Deprivation

			CW-SWBS	OLS	Subjective Material Well-being
Girls	Material Deprivation	M	63.07**	63.11**	75.00**
		SD	26.55	27.26	19.15
	No Material Deprivation	M	72.21**	71.58**	84.35**
		SD	22.55	24.10	15.15
	Total	M	68.26*	67.93*	80.32
		SD	24.77	25.85	17.61
Boys	Material Deprivation	M	64.14**	63.33**	72.96**
		SD	26.20	27.36	19.45
	No Material Deprivation	M	75.18**	75.39**	82.95**
		SD	20.63	22.48	15.23
	Total	M	71.75*	71.65*	79.85
		SD	23.07	24.73	17.28
Elementary Students	Material Deprivation	M	69.97**	69.12**	72.37**
		SD	22.33	23.56	17.66
	No Material Deprivation	M	74.56**	73.00**	80.45**
		SD	18.76	22.73	18.74
	Total	M	73.35*	71.98*	78.32
		SD	19.83	22.97	18.77
Middle School Students	Material Deprivation	M	64.78**	64.15**	75.07**
		SD	29.07	28.51	19.96
	No Material Deprivation	M	75.23**	75.42**	84.54**
		SD	22.99	23.64	16.04
	Total	M	71.42*	71.31*	81.09
		SD	25.86	26.08	18.14
High School Students	Material Deprivation	M	62.56**	62.73**	74.27**

Table 4 (Continued)

Mean Scores of CW-SWBS, OLS, and Subjective Material Well-Being by Gender, School Grades, and Material Deprivation

		SD	25.33	26.88	18.91
	No Material	M	72.74**	72.46**	83.95**
	Deprivation				
		SD	21.61	23.65	13.83
	Total	M	68.61*	68.52*	80.02
		SD	23.72	25.46	16.76
University Students	Material	M	58.31**	56.14**	71.86**
	Deprivation				
		SD	25.82	27.68	21.15
	No Material	M	72.48**	73.31**	82.58**
	Deprivation				
		SD	19.66	20.39	13.55
	Total	M	67.37*	67.11*	78.71
		SD	23.05	24.64	17.42

• significant $p < .01$ within gender and school grades; ** significant $p < .01$ within material deprivation

Table 4 presented boys displayed significantly higher SWB scores than girls on the three SWB scales (CW-SWBS, OLS, and subjective material well-being). Within material deprivation, boys and girls who had not experienced material deprivation reported significantly higher SWB scores than boys and girls who experienced material deprivation.

Among school grades, elementary students displayed significantly higher SWB scores than other students on the three SWB scales. The university students displayed the lowest SWB scores within the school grades. Within the material deprivation, students who had not experienced material deprivation displayed significantly higher SWB scores than students who experienced material deprivation. Among all groups, university students who experienced material deprivation displayed the lowest SWB scores ($M = 56.14$ to 71.86).

Among three SWB scales, all groups tend to display higher SWB scores on subjective material well-being than on CW-SWBS and OLS. The highest mean scores within all groups were displayed on subjective material well-being of participants who reported not experiencing material deprivation.

Table 5
Linear Regression of Material Deprivation on CW-SWBS, OLS, Subjective Material Well-Being, Having Enough Food, and Worry About Family' Money by Gender and School Grades

	B	SE	β	t	p	Adjusted R2
Girls						
CW-SWBS	-9.143	1.200	-.183	-7.618	.000	.033
OLS	-.847	.126	-.162	-6.734	.000	.026
Subjective material well-being	-.934	.084	-.263	-11.160	.000	.069
<hr/>						
Having enough food	-.343	.029	-.280	-11.876	.000	.078
Worry about money	.505	.043	.282	11.767	.000	.079
Boys						
CW-SWBS	-11.035	1.293	-.221	-8.532	.000	.048
OLS	-1.206	.138	-.226	-8.711	.000	.051
Subjective material well-being	-.999	.096	-.268	-10.438	.000	.072
Having enough food	-.389	.037	-.272	-10.498	.000	.073
Worry about money	.539	.052	.278	10.293	.000	.076
Elementary students						
Subjective material well-being	-.807	.241	-.190	-3.355	.001	.033
Having enough food	-.334	.078	-.250	-4.290	.000	.059
Worry about money	.491	.122	.246	4.010	.000	.061
Middle school students						
CW-SWBS	-10.448	1.709	-.195	-6.114	.000	.037
OLS	-1.127	.172	-.208	-6.558	.000	.042
Subjective material well-being	-.947	.118	-.251	-8.007	.000	.063
Having enough food	-.304	.040	-.244	-7.687	.000	.059
Worry about money	.466	.064	.246	7.327	.000	.060
High school students						
CW-SWBS	-10.181	1.165	-.211	-8.742	.000	.044
OLS	-.974	.126	-.188	-7.751	.000	.035
Subjective material well-being	-.967	.081	.283	-11.979	.000	.080
Having enough food	-.347	.032	.263	10.993	.000	.068
Worry about money	.547	.041	.314	13.198	.000	.098
University students						
CW-SWBS	-14.170	3.300	-.296	-4.294	.000	.083
OLS	-1.716	.348	-.335	-4.933	.000	.108
Subjective material well-being	-1.072	.249	-.296	-4.300	.000	.083
Having enough food	-.580	.099	-.388	-5.842	.000	.146
Worry about money	.535	.126	.293	4.229	.000	.081

Linear regression for genders and school grades was conducted to examine the prediction capability of three scales and two conditions to material deprivation.

Table 5 displayed that material deprivation contributed significantly to all SWB scales for both genders and school grades, except for elementary students. Based on Table 5, material deprivation contributed to low SWB scores, lack of access to have enough food to eat each day and worry about their family's money.

Material deprivation contributed negatively to all SWB scales for both genders, but the contribution was only below 5%, except for subjective material well-being (6.9% for girls; 7.2% for boys). For both genders, the highest contribution of material deprivation was to children's and adolescents' worry about money (7.9% for girls and 7.6% for boys).

For elementary students, material deprivation only contributed to subjective material well-being, lack of access to food to eat each day, and worry about family money. Among other groups, material deprivation shows the lowest contribution to subjective material well-being of elementary students (only 3.3%). Material deprivation also shows a lower contribution to having food to eat each day and worrying about money for elementary and middle school students (only between 5.9% to 6.1%). Among school grades, material deprivation shows more outstanding contribution on all SWB scales, lack of access to enough food to eat each day, and worry about family's money in university students.

The overall ability of the models to explain SWB instruments was lower than 10%, except for OLS in university students reaching 10.8% and lack of access to food to eat each day in university students reaching 14.6%. The overall ability of the models for both genders and school grades to explain variance was greater for food insecurity and worried about money rather than to explain SWB scales.

Discussion

This study aimed to examine the state of SWB among Indonesian children and adolescents, including lack of access to food during the lockdown, worry about family's money during the pandemic, and material deprivation.

The results of this study show that in total SWB scores for CW-SWBS and OLS for girls ($M = 67.93$ to 68.26) and boys ($M = 71.65$ to 71.75) during pandemic COVID-19 in Indonesia are lower than scores for CW-SWBS and OLS for girls ($M = 85.05$ to 86.03) and boys ($M = 83.50$ to 84.72) before pandemic COVID-19 using the third wave data of Children's Worlds survey in Indonesia (Borualogo & Casas, 2019b, 2021b). These results are indicating that pandemic COVID-19 has an impact on decreasing SWB scores of Indonesian children. To make things worse, the SWB scores using CW-SWBS and OLS of children experiencing material deprivation ($M = 63.07$ to 64.11) during pandemic COVID-19 (Table 5) are even much lower than the SWB scores of Indonesian children before the pandemic (Borualogo

& Casas, 2021b). According to Cummins (2014), these SWB scores of Indonesian children during pandemic COVID-19 are below the mean score 75. These results suggest that children and adolescents cannot fully adapt to the unexpected changing situations during the pandemic. Cummins (2014) explains behavior as an internal buffer that protects SWB homeostatically. In this pandemic situation in Indonesia, this unexpected adverse event shifts SWB scores of children out of its normal range. It seems children cannot fully predict and manage their daily experiences during the pandemic. Behavior as the internal buffer may not work properly during the pandemic since this pandemic came unexpectedly and has been occurring for more than two years now. This pandemic has been a stressor for children, and they may still need time to adapt to these adverse situations during the pandemic.

Cummins (2014) explained another buffer that protects the SWB of individuals, which is relationships. Relationships that involve support plays an essential role in moderating the influence of potential stressors (Cummins, 2014). During the pandemic, children and adolescents have been experiencing potential stressors since parents lost their jobs (UNICEF, 2021), such as lack of access to food to eat each day during the lockdown, worry about family's money, and experience material deprivation. Besides the economic situation at home, during the pandemic COVID-19, children are also not going to school and experiencing social distancing. They are confined at home and only meet with parents and siblings. Therefore, practically they only have day to day relationships with parents and siblings. Parents play an essential role in assisting their children in buffering stress during confinement at home (Yue et al., 2020). Good relationships with parents will provide emotional and psychological support to help children deal with uncertain situations during pandemic (Fong & Iarocci, 2020). Good relationships with parents also provide a secure environment, particularly when children and adolescents experience material deprivation, lack access to food to eat each day, and worry about family's money.

Cummins (2014) explained that money is another external buffer. For these cases, when children and adolescents experience material deprivation and worry about their family's money, money certainly cannot be an external buffer. Therefore, children need to develop good relationships with parents and siblings to assist the homeostasis of SWB.

The current study reveals that boys significantly display higher SWB scores than girls (Table 4). These results contradict findings from the third wave Children's Worlds survey in Indonesia that showed girls significantly display higher SWB scores than boys (Borualogo & Casas, 2021b; Rees et al., 2020). These results are suggesting that girls get more seriously affected by this pandemic which then lower their SWB. Aligned results showed that girls who live at risk (Tomyne et al., 2014) or in residential care (Llosada-Gistau et al., 2015) displayed significantly lower SWB scores than boys. In the context of the pandemic, a study in three countries (Luxembourg, Germany, and Brazil) showed that girls are more vulnerable to the negative impact of COVID-19 and that it affects their mental health (de Abreu et al., 2021). These studies strengthen findings of the current study that suggest in unpleasant situations, like this pandemic, girls may be at risk of lower SWB.

Studies examining gender differences in children's SWB remain inconsistent with the findings. Several studies reported no significant gender differences (Huebner et al., 2006), while other studies

reported significant differences (Casas et al., 2013; Cummins, 2014; Dinisman & Ben-Arieh, 2015; Kaye-Tzadok et al., 2017). These inconsistent findings need further studies, particularly in the context of COVID-19 pandemic.

According to Table 4, in total, elementary students display the highest SWB scores than other school grades. These results contradict findings from the third wave Children's Worlds survey in Indonesia, where younger children displayed the lowest SWB scores (Borualogo & Casas, 2021b). However, these results are aligned with Casas and González-Carrasco (2018) findings that SWB is decreasing with age.

UNICEF (2021) report on increasing poverty rate for Indonesian children is aligned with World Food Programme (2020a) estimation on rising acute food insecurity during the pandemic. These reports from UNICEF and WFP are strengthened by findings from this current study that show that children report a lack of access to food to eat each day even though they do not experience material deprivation (Table 3). These results suggest that family economic situations affected children's daily life by the sufficiency of food to eat each day.

Inline results are displayed on children's and adolescents' worries about family's money. Although the percentages are small, children who do not experience material deprivation report always worrying about their family's money; the percentages are even higher in children who experience material deprivation. Yeasmin et al. (2020) found that children from higher-income families experience more psychological distress than children from low-income families. Findings from this current study and Yeasmin et al. (2020) study revealed that higher family economic situations and not experiencing material deprivation do not mean children display well-being during the pandemic.

This current study shows that children who experience material deprivation display lower SWB scores than children who experience non-material deprivation (Table 4). These results are in line with findings from the third wave Children's Worlds survey conducted in Indonesia before COVID-19 (Borualogo & Casas, 2019b) and findings from a study conducted by Main and Bradshaw (2012).

Results show that children and adolescents report higher subjective material well-being scores than CW-SWBS and OLS scores (Table 4). These results suggest that children are satisfied with all the things they have, particularly during the pandemic. In contrast, they have many limitations, such as lack of access to food daily and worry about their family's money.

This study investigates the contribution of material deprivation on children's and adolescents' SWB from the perspective of the pandemic in Indonesia. Material deprivation contributed significantly to low SWB, lack of access to food to eat each day during the lockdown, and worry about family's money during the pandemic (Table 5). These results align with findings from several studies showing the association between economic status and material deprivation with SWB of children (Borualogo & Casas, 2021a; Levin et al., 2010; Main & Bradshaw, 2012).

Material deprivation contributes significantly to all SWB measures for both genders and school grades, except for elementary school students. The overall ability of the models to explain variance was more remarkable for lack of access to have food to eat each day and worry about family's money rather than their evaluation of their SWB (Table 5). When children and adolescents experience material

deprivation, they are more concerned about having enough food to eat daily and more worried about their family's money rather than being concerned about their well-being in general.

Material deprivation plays a slightly greater role for girls (7.9%) than for boys (7.6%) when it comes to worrying about family's money. Material deprivation also plays a slightly greater role for girls (7.8%) than for boys (7.3%) on lack of access to food to eat each day during the lockdown. Based on these results, girls are slightly more concerned than boys about material well-being during the pandemic when they experience material deprivation. However, girls ($M = 75.00$; $SD = 19.15$) are also more satisfied with the things they have than boys ($M = 72.96$; $SD = 19.45$) (Table 4) when they experience material deprivation. These findings are interesting for further studies on the contribution of gender to material deprivation. Gender shows different contributions to children's SWB and material deprivation. A study in 15 countries showed that gender contributed to predict material deprivation of children in Algeria, Nepal, Norway, Poland, and South Korea (Main et al., 2019). However, gender did not significantly predict material deprivation of children in Colombia, England, Estonia, Ethiopia, Germany, Israel, Romania, South Africa, Spain, and Turkey (Main et al., 2019).

Material deprivation showed higher contribution to university students than other groups for all SWB measures, lack of access to food to eat each day during the lockdown, and worry about family's money during the pandemic (Table 5). These findings suggest that younger children (elementary and middle school students) do not seem to get a more significant impact of material deprivation than older adolescents (high school and university students) (Table 5). It is suggesting that older students may be more aware of the situations rather than younger ones.

Conclusion and Implication

Material deprivation significantly contributed to low SWB of children and adolescents, lack of access to food to eat daily, and worry about family's money. Children and adolescents who experience material deprivation reported lower SWB scores than children who did not experience material deprivation. SWB scores of children during the COVID-19 pandemic are much lower than SWB scores of children before the pandemic. These results indicate that the COVID-19 pandemic impacts on decreasing the SWB of Indonesian children, particularly in the perspectives of material well-being.

This study has some limitations. Since the sampling technique was convenient sampling and data was collected through internet-based methods, the results of this study cannot be generalized to all Indonesian children. Convenient sampling does not represent the entire population of Indonesian children. Therefore, future studies shall include representative Indonesian children using probability sampling.

The contrast findings of SWB mean scores between genders in this current study compared to SWB mean scores before the COVID-19 pandemic are interesting findings for further studies to get better knowledge about SWB from perspectives of gender differences, particularly in unpleasant and vulnerable situations.

It is suggested that parents assist children to moderate the effect of pandemic COVID-19 through relationships. Parents need to improve better relationships with their children during the pandemic and be a buffer for them.

Regarding the lower scores of children SWB during the pandemic, children need time to adapt to adverse situations, and children do not have opportunities to meet with friends. Therefore, parents shall assist children to moderate the influence of potential stressors of pandemic COVID-19 on SWB.

Since results showed that children who experience material deprivation reported much lower SWB scores, it is recommended for parents to pay more attention to their children's accessibility to basic necessities. Parents shall also provide a secure environment by providing enough food to eat daily and assure their children about family's financial situations.

Declarations

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Conflict of Interest

The authors declare that they have no conflict of interest.

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