

The role of family healthcare in the social development of vulnerable school-aged children groups

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Abstract

The COVID-19 pandemic has compelled children to embrace remote learning and interact more with their immediate families. However, this increased family interaction may pose a potential risk to children's social development. This study aimed to investigate the relationship between family involvement in healthcare and the social development of children. A cross-sectional correlational design was used, involving reliable questionnaires on family healthcare roles and a school-age child social development questionnaire adapted from the V-SMS (Vineland – Social Maturity Scale). Data were collected from 37 parents of 4th and 5th-grade of elementary school students. The data were analyzed using chi-square tests. The study revealed significant associations between family healthcare roles and children's self-direction ability, decision-making, communication skills, and their abilities to dress, eat, and socialize independently. Negative correlation coefficients for specific variables indicated that family healthcare involvement could potentially hinder school-age children's social development. Further research should consider controlling for various factors affecting family healthcare roles and children's social development. Strengthening the family's role, particularly for those facing challenges in fulfilling various tasks, is crucial. Collaboration programs between nursing and family development, such as "Bina Keluarga Remaja" or Adolescent Family Development in schools, can be beneficial. Additionally, further analysis is needed to understand the impact of family healthcare roles on children's social development during the new-normal era.

Introduction

Family is the basic unit in society that can cause, prevent, improve, and influence the health of its members.¹ Families play an essential role in meeting the care needs of individuals who require assistance due to illness and/or disability.^{2,3} However, without adequate support, family health and wellbeing can be compromised. As the number of individuals facing chronic illnesses continues to rise worldwide, including the ongoing COVID-19 pandemic, there is a pressing need to recognize the significant caregiving contributions made by family members.^{4,5}

According to the United Nations Educational, Scientific, and Cultural Organization's (UNESCO) COVID-19 global monitoring of school closures, as of June 2021, around 50% of students worldwide were affected by partial or full school closures, impacting nearly 200 million pupils.⁶ As of December 31, 2021, the number of household heads in Indonesia was 87.83 million people, according to data from the Ministry of Home Affairs. The total population of East Java in 2021 was approximately 40.16 million people.⁷ Until June 2022, East Java Province ranked second among Java's provinces with the highest number of household

heads, reaching 14.09 million families with a population density of 857 people per square kilometer. Data from the Malang Regency Social Service, collected in 2019-2020, revealed that there were more than 250,000 families categorized into underprivileged, prosperous, and well-off groups.^{8,9} To combat COVID-19, the Indonesian government enforced Large-Scale Social Restrictions (Pembatasan Sosial Berskala Besar or “PSBB”) starting in June 2020. The need to enhance the quality of life and family health became critical during these restrictions.^{10,11}

In terms of healthcare provision and services, patients, families, and communities are active partners in scientific research, collaborators in shared decision-making for care and related matters, and advocates for the health priorities pertinent to their communities. They are not mere passive recipients.¹² Family healthcare involves identifying health issues in the family, taking appropriate actions, providing care, promoting a healthy environment, using healthcare services, eating well and getting enough sleep, engaging in recreational activities, taking prescribed medications, addressing alcohol and tobacco use, and practicing self-care together as a family.^{11,13} During pandemics, over 80% of participants found it somewhat helpful to care for their family, including children. COVID-19 disruptions affected child and family health and access to healthcare.¹⁴ In the case of school-aged children, a study by Putri (2020) revealed that parents were required to assume the role of educators, serving as role models and motivating children to excel academically.¹⁵ Parents had to take on the role of educators and motivators for school-aged children, as education shifted to homes.¹⁶ However, the connection between family healthcare functions and school-aged children’s development during pandemics remains underexplored.

The enforced social isolation, along with associated lifestyle changes, presented significant challenges for families, particularly those with school-age children.^{17,18} With school closures, working parents were compelled to care for their children throughout the day without regular support systems, such as day-care facilities or grandparents. Parents who attempted to work from home found it exceedingly challenging to balance their professional responsibilities with childcare and domestic work, resulting in decreased productivity.^{19,20} These challenges led to poor dietary choices, limited physical activity, and increased obesity risk for children. Parents working outside the home as essential workers faced a difficult balance between their professional responsibilities and the needs of their isolated children. Indonesian parents, particularly dual-earner families with young children, faced added strain due to their dual roles as workers and caregivers.^{21,22}

Children between the ages of 6 and 12 years typically begin to value friendships and become more involved in activities like sports and art. However, the health and social inequalities observed during the pandemic have the potential to restrict their social development.²³ School-age children have various independent social developmental tasks to fulfill. Additionally, as per the Vineland Social Maturity Scale, developmental tasks encompass self-help skills in general, dressing, eating, self-direction, socialization, occupational skills, communication, and locomotion.^{24,25} During the pandemic, these developmental tasks were jeopardized due to increased sedentary behavior. A 2020 study with 656 primary caregivers in Canada found that poor parenting quality during the pandemic was linked to various household and pandemic-related factors, with caregiver depression consistently affecting the parent-child relationship.²⁶ Given this context, the objective of this study was to explore the relationship between family roles in healthcare provision and the social development of children. We hypothesize that there is a significant relationship between these

variables, especially in the unique context of the COVID-19 pandemic, which has brought forth unprecedented challenges to family dynamics and child development.

Materials and Methods

Research design

This study employed a correlational research design with a cross-sectional approach, aimed at analyzing the correlation between the family’s role in healthcare provision and the social development of children. The research investigates how family roles, such as recognizing health problems, making appropriate decisions, providing care, utilizing healthcare facilities, modifying the environment, and engaging in recreational activities, influence the development of various skills in children, including dressing and eating independently, self-direction, self-socialization, self-help in general, communication, and locomotion.

Study participants

The study involved a total of 37 parents of grade 4-5 elementary school students. Participants were selected through convenience sampling based on specific inclusion criteria: they had to be parents of children aged 10-11 years in grades 4-5, complete the entire questionnaire, and be proficient in using a mobile phone. Ethical considerations were observed, and the necessary permissions were obtained from the school and homeroom teacher. Due to social restrictions, the study’s explanation, informed consent, and the Google Form questionnaire were distributed exclusively within a social media group of parents (WhatsApp). To minimize potential biases related to sampling, non-responses, or response bias, the researcher collaborated with the homeroom teacher and remained active in the parents’ online group throughout the study. The researcher ensured the use of neutral and non-leading questions, allowed for participant anonymity, and refrained from using any brand identification. The study was conducted at Landungsari 01 Elementary School, Landungsari Village, Malang Regency in December 2021.

Variable, instrument and data collection

Demographic factors, including age, gender, education, occupation, and income, were considered as confounding variables. The independent variables included nine sub-criteria, focusing on various aspects of the family’s role in healthcare provision. These criteria encompass recognizing family health problems, making informed decisions, utilizing healthcare facilities, modifying the environment, and managing family practices related to diet, sleep hygiene, recreation, therapeutic approaches, and substance use (alcohol and cigarettes). The questionnaire used in this study was developed by Ayuningtyas (2021).²⁷ The instrument employed a 4-point Likert scale, where strongly agree = 4, agree = 3, disagree = 2, and strongly disagree = 1.

The dependent variable was the social development of school-age children, which included seven sub-criteria encompassing self-help in dressing and eating, self-direction, socialization, self-help in general, communication, and locomotion skills. The questionnaire for assessing school-age child social development was adapted from the Vineland Social Maturity Scale (V-SMS) developed by Doll (1936),²⁴ a commonly used tool for assessing the social development of school-aged children.²⁵ A Likert scale was used, with response options ranging from never performed = 1, rarely = 2, to always = 3. The reliability of this questionnaire was verified

through Cronbach's alpha (α), yielding a score of 0.92 ($\alpha \geq 0.70$), and the coefficient correlation score was 0.85 ($\alpha > r$ table).²⁸

Data analysis

The analysis conducted in this study includes descriptive analysis and a chi-square test. The chi-square (χ^2) test was utilized to assess the association between variables, although it does not provide information regarding the strength of the association or whether the relationship is causal.²⁹ Both variables in this study are categorical, mutually exclusive, and meet the expected values.

Ethical clearance

This research received ethical approval from the Health Research Ethics Commission under ethical certificate No. 335/EC/KEPK-S2/09/2021. Throughout the research process, the researcher adhered to ethical principles, including informed consent, respect for human rights, beneficence, and non-maleficence.

Results

Based on the demographic information presented in Table 1, the average age of fathers and mothers fell within the range of 37 to 38 years old. The majority of fathers had completed senior high school, undergraduate degrees, or held a Magister/Ph.D. level of education (N=28, 75.7%). Similarly, most mothers had educational backgrounds ranging from senior high school to undergraduate degrees and Magister/Ph.D. levels (N=31, 83.7%). In terms of parental occupation, 45.9% of fathers worked as private employees (N=17), regarding the occupation of mothers, approximately 40.5% engaged in domestic work at home (N=15).

Table 2, which provides information on the distribution of family roles in healthcare provision, reveals that the majority of participants fulfilled their tasks at a rate of 83.8% to 100%. Notably, all parents successfully performed environmental modification or protection tasks for their family members, including school-age children. No participant failed in this aspect. Only 6 participants (16.2%) did not perform sleep hygiene practices for their family

members. In Table 3, which outlines the distribution of school-aged children's social development tasks, we observe that about 89.2% of the participants (N=33) were able to successfully perform self-help in dressing. For self-help in eating, 70.3% (N=26) of participants were proficient, 81.1% (N=30) of children performed self-direction successfully, and 83.8% (N=31) effectively developed self-socialization, even when adhering to social restriction rules. However, 75.6% (N=28) exhibited less development in self-help in general, and 78.4% (N=24) showed commendable development in communication and locomotion.

The results of the correlational analysis, as displayed in Table 4, reveal significant associations between various variables. Notably, the family's ability to recognize health problems showed a negative and significant correlation with the self-direction development task among school-aged children ($r = -.49^{**}$; $p < .01$). This suggests that when families perform poorly in recognizing health problems, school-aged children tend to exhibit higher levels of self-direction. These findings suggest that children have the potential to become self-directed learners, engaging deeply in their own learning processes to fulfill their needs.^{30,31} However, by performing study at home or homeschooling due to pandemics the parents should developed more ideas in equipping, encouraging, enabling, and empowering especially to educate their own children also not merely in recognizing the family health problem. The parents were still obligated to give a direction to the school-age children in a properly and not intimidating.

Discussion

The research results have indicated significant associations between independent and dependent variables. Notably, the role of making the right decisions exhibited a significant negative association with the development of communication among school-aged children. In other words, when families perform poorly in making the right decisions, their children tend to develop stronger communication skills. In situations where families fail to make the right

Table 1. Characteristics of Participant (N=37).

No	Variables	M (SD) / F	%
1	Age		
	Father	38.24 (11.25)	-
	Mother	37.16 (5.23)	-
2	Father Educational History		
	Elementary, Junior High school	9	24.3
	Senior High, Undergraduate, Magister/Ph.D	28	75.7
3	Mother Educational History		
	Elementary, Junior High school	6	16.3
	Senior High, Undergraduate, Magister/Ph.D	31	83.7
4	Father occupation		
	Private employee	17	46.0
	Entrepreneur	12	32.4
5	Mother occupation		
	Private employee	3	8.1
	Entrepreneur	9	24.3
	Domestic work	15	40.5
	Other	10	27.1

M, mean; SD, standard deviation; F, frequency.

Table 2. Distribution of family role in healthcare provision (N=37).

No	Variables	Frequency	%
1	Recognize the health problems		
	Failed	2	5.4
	Pass	35	94.6
2	Making right decision		
	Failed	3	8.1
	Pass	34	91.9
3	Family care		
	Failed	1	2.7
	Pass	36	97.3
4	Environmental protection/modification		
	Pass	37	100.0
5	Utilization of health-care facilities		
	Failed	2	5.4
	Pass	35	94.6
6	Diet practice		
	Failed	1	2.7
	Pass	36	97.3
7	Sleep hygiene practice		
	Failed	6	16.2
	Pass	31	83.8
8	Recreational practice		
	Failed	1	2.7
	Pass	36	97.3
9	Therapeutic, alcohol and cigarette practice		
	Failed	2	5.4
	Pass	35	94.6
	TOTAL	37	100

Table 3. Distribution of school-aged children social developmental task (N=37).

No	Variables	Frequency	%
1	Self help dressing		
	Well	33	89.2
	Less	4	10.8
2	Self help eating		
	Well	11	29.7
	Less	26	70.3
3	Self direction		
	Well	30	81.1
	Less	7	18.9
4	Self Socialization		
	Well	31	83.8
	Fair	6	16.2
5	Self help general		
	Well	9	24.3
	Fair	13	35.1
	Less	15	40.6
6	Communication		
	Well	29	78.4
	Fair	6	16.2
	Less	2	5.4
7	Locomotion		
	Well	29	78.4
	Less	8	21.6
	TOTAL	37	100.0

decisions, children may enhance their communication skills, thereby developing critical thinking and critiquing their parents' roles. This finding underscores the significance of making the right decisions within families, as it serves as a protective factor against juvenile delinquency.³²

Communication skills can be enhanced through play and exploration in young children. These methods aim to foster affective and experiential connections with nature in young children, helping them establish bonds with the natural world. This foundation may encourage them to explore issues and take appropriate action as they mature.³³ Every interaction between parents and children constitutes a form of communication that not only teaches children how to interact with others but also shapes their emotional development and how they build relationships later in life. Effective communication skills can be developed by actively and reflectively listening, speaking clearly with children, avoiding the use of bribes to encourage better behavior, assisting them in reflecting on or explaining their feelings, and setting an example of kindness. These strategies can help develop children's communication skills, even when parents fail to make the right decisions.³⁴

Regarding the utilization of healthcare facilities as a family role, it exhibited a negative correlation with self-help dressing and self-help socialization. In contrast, with regard to self-help eating, this task displayed a positive correlation. The utilization of healthcare facilities represents one of the family's roles in maintaining the health and high productivity of its members. This function goes beyond the basic responsibility of maintaining the health status of family members.²⁷ A study conducted by Kaka, Putri, and Devi (2022) explained that family health care functions influence the nutritional status of children.³⁵ The results of this study suggest that families with poor health care functions have a 3.727 times higher risk of having children with poor and deficient nutritional status compared to families with good health care functions. Parental modeling is also key to making healthy food choices within families.³⁶ The role of healthcare is crucial in family assessment as the family serves as the fundamental unit in society, regulating behavior, implementing healthcare, and ensuring its protection. Families engage in preventive healthcare and jointly care for sick family members. Integrating the family into the healthcare team offers multiple benefits and can reduce barriers to healthcare utilization.³⁷ Encouraging families to establish and maintain connections with healthcare facilities is recommended for post-pandemic recovery planning. Schools should also reopen access to various family assistance and health programs that were hindered during

social restrictions to promote social development and independence among children.

Family dietary practices involve dietary arrangements aimed at preventing overweight and underweight, which can lead to various diseases.³⁸ Poor family dietary habits can lead to obesity, which is linked to health issues like high blood pressure, heart disease, cancer, and more. Assessing food choices should involve collaboration between families and caregivers.³⁹ Fewer healthy dietary practices can negatively affect children's self-help skills and socialization.^{40,41} Sharing meals as a family promotes relational closeness and has various benefits, including emotional regulation, positive parenting, and conflict prevention according to Glazen's review study.⁴² Cross-sectional studies linking overall family functioning and the frequency of family mealtimes have generally found positive connections.³⁸

In a study on engaging in active leisure, families with an adequate level of physical activity exhibited higher scores in happiness, contentment, well-being, and quality of life.^{43,44} Family exercise and recreational practices represent the family's ability to engage in physical activities to enhance general health through increased range of motion, which can help reduce body fat and the risk of disease.³⁷ Adults and family members are encouraged to engage in mostly moderate physical activity for at least 30 minutes a day to maintain their health status. Regarding self-direction, a study involving 1,425 students enrolled in Hong Kong Primary levels 1 to 6 showed that self-directed leisure activities during homework-free holidays increase students' confidence, intention, and ability to think freely. This approach is known to improve academic competence and create positive perceptions of fulfilling school tasks.⁴⁵

The role of family healthcare provision should be supported by nursing professionals to help families understand parental role construction, provide guidance and support for implementing physical healthcare, promote safe environments, apply theories, principles, and parenting and child programs, develop therapeutic relationships, manage parenting and childcare, promote access to support networks, guide parental figures through the course of life, and use scientific evidence to guide healthcare practices.⁴⁶ In Indonesia, such programs exist, such as Bina Keluarga Remaja (BKR) or Adolescent Family Development. BKR is an organization comprising families with teenagers aged 10 to 24 years, established with the aim of enhancing the knowledge and skills of parents and other family members to nurture and guide adolescent development. Through the empowerment of BKR cadre and family

Table 4. Correlational analysis.

Variables	M (SD)	SHD (1)	SHE (2)	SDIR (3)	SSOC (4)	SHG (5)	COMM (6)	LOC (7)
1 Recognize the health problems		0.08	-0.15	-0.49**	0.10	0.14	0.12	-0.16
2 Making right decision		0.10	0.02	-0.10	0.13	0.06	-0.57**	0.15
3 Family care		0.06	-0.10	0.08	0.07	-0.09	0.08	0.08
4 Environmental protection/modification		-0.08	0.03	0.02	-0.20	0.09	-0.30	0.23
5 Utilization of health-care facilities		-0.69**	0.37*	-0.190	-0.54**	-0.13	-0.16	-0.16
6 Diet practice		-0.48**	0.25	-0.34*	-0.37*	-0.09	-0.31	-0.31
7 Sleep hygiene practice		-0.08	0.03	0.02	-0.20	0.09	-0.30	0.23
8 Recreational practice		0.058	-0.108	-0.34*	0.07	0.29	0.08	0.08
9 Therapeutic, alcohol and cigarette practice		0.08	-0.15	-0.19	0.10	0.14	-0.16	0.12

*Significance at $p < 0.05$; **Significance at $p < 0.01$. SHD, Self Help Dressing; SHE, Self Help Eating; SDIR, Self Direction; SOC, Socialization; SHG, Self Help General; Comm, Communication; LOC, Locomotion.

health nurses, BKR helps parents and family members fulfill their roles in nurturing and guiding adolescents.⁴⁷ However, during social restrictions, programs like these were curtailed, limiting the ability of nurses to reach schools and implement support programs. Reactivating such collaborative programs is recommended to strengthen the family role in the new normal era.

A limitation of this study is the relatively small number of participants, which may reduce the generalizability of the results. It is advisable to include more participants and conduct research at multiple centers to increase the effect size.

Conclusions

The role of the family in healthcare provision significantly impacts various social development tasks among school-age children, particularly during a pandemic when children have more interactions with their immediate family members. Strengthening the family's function can be achieved through collaborations between nursing professionals and family development programs, such as "Bina Keluarga Remaja" or Adolescent Family Development in schools. Collaboration and a holistic approach are key to fostering a healthier and more socially developed generation. Additionally, it is advisable to conduct further analyses to explore differences in the family's role in healthcare and its influence on children's social development in the new normal era.

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