

EMPOWERING THE ROLE OF PARENTS AND TEACHERS IN SURABAYA BAPTIST CHRISTIAN ELEMENTARY SCHOOL

Hudi Winarso^{1*}, Florence Pribadi² Rahajoe Imam Santosa³ Angelarita Djami Raga⁴,
Glory Ta'bi Palloan⁵

^{1*2345}Fakultas Kedokteran, Universitas Ciputra

Email: ^{1*} hudi.winarso@ciputra.ac.id, ² florence.pribadi@ciputra.ac.id,
³ imam.santosa@ciputra.ac.id, ⁴ adjamiraga@student.ciputra.ac.id,
⁵ gtabi001@student.ciputra.ac.id

Abstrak

Mencetak sumber daya manusia yang handal harus dilakukan sedini mungkin pada semua tahap kehidupan, termasuk masa anak khususnya kelas 4 – 6 sekolah dasar. Pada usia tersebut termasuk kelompok pra puber, masa yang penuh tantangan (storm and stress), yang jika dikelola dengan benar maka dampak pada masa depannya akan baik. Pengabdian masyarakat yang dilakukan fokus pada murid kelas 4-6 sekolah dasar Kristen baptis Surabaya, dilakukan dengan target aspek pengetahuan dan praktek perbaikan gizi, serta peningkatan pengetahuan guru tentang sex education masa pra-puber. Peningkatan pengetahuan orang-tua murid dan guru, dilakukan dengan seminar dan diskusi. Praktek gizi sehat disiapkan oleh orang-tua murid, untuk selanjutnya menu yang sudah dinilai, dikonsumsi bersama seluruh murid. Hasil kegiatan yaitu data indeks masa tubuh murid, peningkatan pengetahuan orang-tua dan guru tentang gizi sehat dan seksualitas untuk anak pra-puber, peningkatan konsumsi makanan sehat bergizi. Juga pengalaman penggunaan on-line education saat diskusi merupakan pengalaman yang baik, untuk kemudian para guru lebih akrab dengan teknologi.

Kata kunci: pra-puber, sex education, gizi sehat

Fostering distinguished human resources need to be done since early stages. Grade 4-6 elementary students are in prepuberty group and are filled with storm and stress. Should this phase is handled properly, it would bring impact for the children's future. This community empowerment is done with focus on grade 4-6 students at Baptis elementary school Surabaya, with target of increasing knowledge, skills for nutrition and teachers' knowledge on sexual education in pre-puberty children. Uplifting teachers and parents' knowledge is done by seminar and discussion, followed by practicing preparing healthy menu by parents. Results: data gathered showed increased of knowledge and skill regarding healthy nutrition and children sexual education. The community empowerment process itself is a new learning experience for the teachers in using online method as teaching delivery method.

Keywords: pre-puberty, sex-education, healthy nutrition.

INTRODUCTION

Obtaining distinguished human resources is an extensive process. It needs adequate nutritional intake since conception, during childhood, adolescent and even as an adult (Notoatmodjo, 2008). Positive intervention during 4th-6th grade at elementary school, is a strategic move to produce superior and of course healthy human resources (Istiqomah and Suyadi, 2019).

Being healthy is more than being free from disability, holistically, health as a complete human being includes biological-psychological-sociological-cultural and spiritual aspect. Interference in one aspect, can interfere with the other; on the other hand, excelling in one aspect can also have a good impact on another aspect. For example, when the body is sick, stress will arise, then it can interfere with sociological and spiritual conditions (WHO, 1946). Grade 4 - 6 elementary school students, generally are 10-13 years old, which is around the beginning of puberty. a storm and stressed phase of their life (Arnett, 1999; Casey *et al.*, 2010).

Surabaya Baptist Christian Elementary School is located at Jl. Simo Kwagean 47 Surabaya, which is a densely populated area (slum area). Accordingly, the economic ability of the parents of students mostly are in the pre-prosperous group (Surabaya, no date). The students who are lacking nutritional intake, commonly has lower academic achievement, and experience suboptimal growth and development (Istiqomah and Suyadi, 2019).

Indonesia is facing double burden of malnutrition problem. On one pole, there is undernutrition that has not yet resolved, and the other side, overnutrition that is starting to arise (Unicef, 2018). Anthropometry measurement is needed to assess children nutritional status and their growth trend. For 5 to 18 year-old children the standard measurement is by using body mass index per age (Kementerian Kesehatan Republik Indonesia, 2020).

Parents are the most important player in improving children's nutritional intake. Economic factors are not the only cause for insufficient child nutrition, parent's knowledge

is also an important factor. Another prominent adult figure in children life is teachers, as students, they spend about six hours in a day with them. Nevertheless, their role to support children's growth and development are not optimal if the students' parents do not have good understanding (Nugraheni *et al.*, 2019). Healthy nutrition education for parents is needed to to increase the parents' knowledge to be able to provide appropriate nutrition. Teachers who have additional knowledge about nutrition, growth, and development during the pre-puberty period, will be able to support their students better. However, this new knowledge needs to be implemented to bring changes and fostered as a new habit. This community engagement includes educating parents, teachers, and the students regarding nutrition, anthropometric screening, parents' consultation and to promote the new dietary habit, a healthy meal competition was held and closed by a webinar for the teachers.

METHOD OF IMPLEMENTATION

The activities were held between January to June 2020. The subjects of the study were teachers (17 teachers, comprise classroom and specific subject teachers), parents and all students in grades 4, 5 and 6 students of Surabaya Baptist Christian Elementary School with a total of 73 students (grade 4 = 28 students, grade 5 = 24 students, and grade 6 = 20 students).

Teachers obtained weight and height data during first semester report distribution. Data then analyzed according to children anthropometry standard. Parents are invited to school to attend healthy eating habit symposium; pre-post test questions are also distributed to evaluate audience understanding regarding materials. Parents and teachers are also invited to have a consultation session, for those with concern of their children nutritional status. Students then challenged to a healthy meal competition, where students, in groups, are given a certain budget to be managed and to deliver a healthy menu. The menu then judged by their adherence to balance nutrition guideline (Menteri Kesehatan Republik

Indonesia, 2014).

Lastly, the community empowerment was closed by webinar to teachers regarding nutrition and sex education to enable teachers, accompanying their students during pre-and puberty.

RESULTS AND DISCUSSION

From the data analysis, it was found that the average body weight pattern is almost the same as the average height pattern. The average height is also in accordance with the theory of growth where in the 4th grade of elementary school, the weight and height of boys and girls are approximately the same, but entering the fifth grade of elementary school, the average height of children increases by approximately 10 cm per child and in the sixth grade of elementary school where female students generally have begun to experience menarche and experienced an increase in both weight and height.

Table 1. Average age, height, and weight per grade

	Age (year)	Age (mo)	Height (cm)	Weight (kg)
grade 4	9.89	5.71	133.54	32.64
grade 5	10.79	5.29	146.71	37.08
grade 6	11.80	4.90	148.93	40.45

By anthropometry standard, the parameter used to determine nutritional status for children aging 5-18 years old is BMI (body mass index) by age (BMI/age). The Students' BMI ranges from 11.89 to 28.36 with an average of 17.72. The lowest BMI was from a female student in grade 5 and the highest BMI is from a male student in grade 4. By this measurement 25% of students are very thin (BMI < 15), 42% of students are thin (15 < BMI < 20), 3% are overweight (BMI > 25), and only 27% are within normal range.

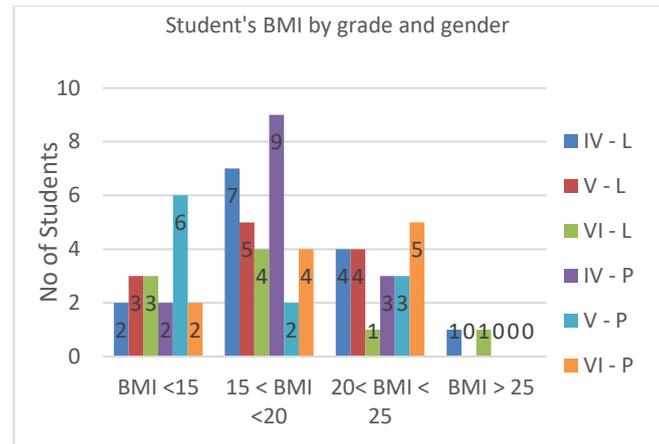


Figure 1 Student's BMI by grade and gender, IV: grade 4; V: grade 5; VI: grade 6; L: male; P: female

The BMI measurement then plotted to z-score according to age regardless of their current grade. Those with in < -3 SD (standard deviation) is categorized as severely thin (ST), -3SD < BMI < -2SD is categorized as thin (T), -2SD < BMI < +1SD, is categorized as normal (N), +1SD < BMI < +2SD is categorized as overweight (OW), and BMI > +2SD is considered as obese. After plotted to BMI/age, students' nutritional status sifted. 8% are very thin, 7% are thin, 55% are normal, 29% are overweight, and 1% are obese.

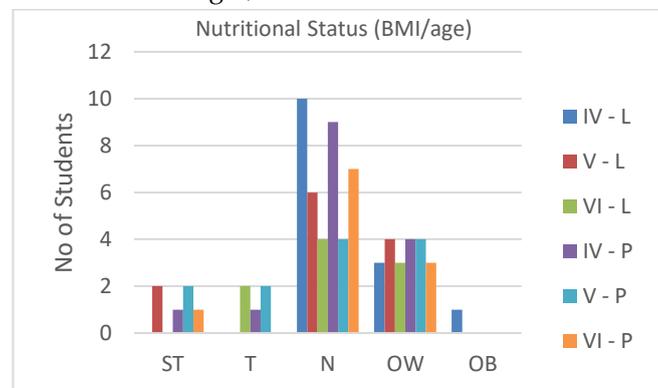


Figure 2 Students' nutritional status by BMI per age. IV: grade 4; V: grade 5; VI: grade 6; L: male; P: female

From data above, it can be concluded that there is a shift in nutritional disorders, there are more students (30%) that are experiencing over nutrition compared to those experiencing undernutrition (15%).

The interventions provided are in the form of briefings to parents and teachers on simple nutritional theory, healthy food pyramids that are easy to understand, along with examples of applications in everyday life that are easy to apply. The session continued

with a lively and enthusiastic question and answer from parents and teachers.

During question-and-answer session after seminar, and consultation with teachers and families, children with both under or over nutrition have family issue, so that the children’s nutrition do not get priority attention.



Figure 3 Education for parents and teachers

Family problem, i.e.: absence of one or both parents (the child is taken care of by a guardian, grandmother, siblings of certain parents, or other family member/relatives), this matter causes disturbance in family dynamics and function, that is shown in lack of planning nor consideration in determining the meals for the day. Meals are chosen not based on balanced nutrition but rather on taste, certain family member favorite, ease of preparation, and the feeling of satiety. Regardless of fathers’ education level, knowledge regarding nutrition and family income. This concurs with previous research regarding breakfast habit (Soedibyo and Gunawan, 2009; Cahya Gemily, Aruben and Suyatno, 2015).

Breakfast at home is out of the question, neither parent or guardian and their children have breakfast together at home. Children then buy their breakfast at nearby food vendor at about 9.00 am during recess time. The food they could afford usually consist of 75% carbohydrate, with a combination of minimum two type of carbohydrate that is rice, or noodles, or potatoes, or starches. Their snack is not getting any healthier either. From the interview with the food vendor, the most popular snack are mini instant noodles, cooked with hot water within the plastic container, and fried starch with various sauces. Those two

snacks are high in carbohydrate, and sodium, not to mention their cooking method (Amourisva, 2015)

Tabel I. Parents and student characteristics

Description	Amount/Percentage
Number of students in grades 4, 5, and 6	72
Father’s Education	PT= 24% SMA= 73% SMP= 3%
Nutritional knowledge	Good = 83 % Less = 17%
Income refers to the UMK Surabaya	Below UMK = 72% Above UMK = 28%
Student	Very thin = 8%, Skinny = 7% Normal = 55% Overweight = 29% Obese = 1%

In addition to providing education to parents, students also practice healthy eating. Practice is packaged in the form of a healthy meal competition. The students in groups were given funds to then spend and managed into various nutritious meal, then consumed together during the competition. School also provided milk to supplement the meal. The pictures shown below indicates students and parents knowledge regarding healthy and balance meal, should compose of 50% of carbohydrate from rice, other starches (1/3 of the plate) and fruits (1/6 of the plate), where protein (both animal and plant based) filled 1/3 of the plate, and vegetables fill the last 1/3 of the plate (P2PTM Kemkes RI, 2018).



Figure 4 Opening of Meal Competition



Figure 5 Sample of meal prepared by the students



Figure 6 Milk distribution from school

Following the meal competition, there is a webinar regarding nutrition and children sex organ maturation. Grade 4-6 students are in prepuberty period where they are experiencing functional and anatomical changes in their body. These changes need nutritional support and psychological support from their guardian. In this case teachers' role are very strategic as almost one

third of children's time are spent at school. The growth of reproductive organ requires not only major nutrition but also micro nutrition such as multivitamins, minerals (iron, zinc, calcium), and selenium. Nutrition can be acquired from having variety in meals, and teachers should encourage student to practice selfcare and be more aware of their meals for they contribute to their health, now and in the future.

CONCLUSION

In general, parents already have sufficient knowledge about nutrition and the importance of nutrition for children's growth and development, but there are several factors that make the application of nutritional knowledge difficult to do. Factors that are often complained about are the busyness of parents, the ease of buying food from outside and the more economical price of fast food. Unfortunately, the available food is not necessarily guaranteed nutrition and is proven by the results of the analysis of body mass index per age in approximately half of the students, not within normal limits. Teachers need more empowerment to be able to direct their students to better health status.

ACKNOWLEDGMENTS

The author would like to thank Ciputra University Surabaya for the funding and opportunities provided. The author also expresses his gratitude to Surabaya Baptist Christian Pniel Elementary School, teachers who are passionate about learning and dedicated in overseeing the development of students, and also the parents and students of Elementary School who have actively participated in the series of activities.

REFERENCE

- Amourisva, S. A. (2015) 'Kontradiksi Kebiasaan Jajan Pada Anak Usia Sekolah Dasar', *Medical Journal of Lampung University*, 4(8), pp. 143-146.
- Arnett, J. J. (1999) 'Adolescent Storm and Stress, Reconsidered', *American Psychological Association*, 54(5), pp. 317-326.

- Cahaya Gemily, S., Aruben, R. and Suyatno (2015) 'Faktor-Faktor yang Berhubungan dengan Kebiasaan dan Kualitas Sarapan Siswa Kelas V di SDN Sendangmulyo 04 Kecamatan Tembalang Semarang Tahun 2015', *Jurnal Kesehatan Masyarakat*, 3(3), pp. 2356–3346. Available at: <http://ejournal-s1.undip.ac.id/index.php/jkm> (Accessed: 15 June 2020).
- Casey, B. J. *et al.* (2010) 'The Storm and Stress of Adolescence: Insights from Human Imaging and Mouse Genetics', *Dev Psychobiol*, 52(3), pp. 225–235. doi: 10.1002/dev.20447.
- Istiqomah, H. and Suyadi, S. (2019) 'Perkembangan Fisik Motorik Anak Usia Sekolah Dasar Dalam Proses Pembelajaran (Studi Kasus Di Sd Muhammadiyah Karangbendo Yogyakarta)', *El Midad*, 11(2), pp. 155–168. doi: 10.20414/elmidad.v11i2.1900.
- Kementerian Kesehatan Republik Indonesia (2020) *PERATURAN MENTERI KESEHATAN REPUBLIK INDONESIA*. Jakarta: Kementerian Kesehatan. Available at: http://hukor.kemkes.go.id/uploads/produk_hukum/PMK_No_2_Th_2020_ttg_Standar_Antropometri_Anak.pdf (Accessed: 21 October 2022).
- Menteri Kesehatan Republik Indonesia (2014) *PERATURAN MENTERI KESEHATAN REPUBLIK INDONESIA*. Jakarta: Menteri Kesehatan Republik Indonesia.
- Notoatmodjo, S. (2008) 'Kesehatan dan Pembangunan Sumber Daya Manusia', *Jurnal Kesehatan Masyarakat Nasional*, 2(5), pp. 195–199. Available at: <https://media.neliti.com/media/publications/39756-ID-kesehatan-dan-pembangunan-sumber-daya-manusia.pdf> (Accessed: 3 March 2021).
- P2PTM Kemkes RI (2018) *Isi Piringku Sekali Makan - Direktorat P2PTM, P2PTM Kemkes RI*. Available at: <http://p2ptm.kemkes.go.id/infographic-p2ptm/obesitas/isi-piringku-sekali-makan> (Accessed: 7 November 2022).
- Soedibyo, S. and Gunawan, H. (2009) *Kebiasaan Sarapan di Kalangan Anak Usia Sekolah Dasar di Poliklinik Umum Departemen Ilmu Kesehatan Anak FKUI-RSCM, Artikel Asli 66 Sari Pediatri*.
- Surabaya, B. P. S. K. (no date) *Luas Wilayah dan Kepadatan Penduduk Menurut Kecamatan Hasil Sensus Penduduk*. Available at: <https://surabayakota.bps.go.id/statistic/2015/02/11/49/luas-wilayah-dan-kepadatan-penduduk-menurut-kecamatan-hasil-sensus-penduduk.html> (Accessed: 1 March 2021).
- Unicef (2018) *Nutrition | UNICEF Indonesia, UNICEF Indonesia*. Available at: <https://www.unicef.org/indonesia/nutrition> (Accessed: 21 October 2022).
- WHO (1946) *CONSTITUTION OF THE WORLD HEALTH ORGANIZATION 1*. New York: WHO. Available at: <https://apps.who.int/gb/bd/PDF/bd47/EN/constitution-en.pdf?ua=1> (Accessed: 7 November 2022).