



COMMUNITY SERVICE

Health Awareness And Youth Empowerment Program In The Digital Era

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ABSTRACT

Background: The fast-paced digital era presents unique challenges to youth health, including gadget addiction, a lack of clean and healthy living behaviors (PHBS), and the risk of bullying. This community service aimed to enhance health awareness and empower children of Indonesian migrant workers (PMI), parents, and teachers at the PPWNI Klang, Selangor, Malaysia, to foster a healthy and smart generation in the digital age.

Method: The research employed a community-based approach, involving initial coordination with the partner and using interactive lectures and direct practice for the training. The core activities included psychoeducation sessions on mitigating gadget addiction, PHBS, and bullying, alongside basic health checks. Evaluation and monitoring were conducted using pre- and post-training questionnaires and behavioral observation. The target participants included PMI children, parents, and teachers.

Result: From 48 participants attended the basic health checks, which revealed an average cholesterol level of 205.85, a blood glucose average of 107.23, and a uric acid average of 7.05. The findings indicate a prevalence of hypercholesterolemia among the participants.

Conclusion: The program is relevant to the research objectives and is expected to reduce bullying rates, increase PHBS awareness, and promote more controlled use of gadgets. This collaboration with PPWNI Klang demonstrates a commitment to forging a healthy, strong, and smart younger generation capable of navigating the digital era.

Keywords: Youth Empowerment; Health Awareness; Digital Era; Hypercholesterolemia; PHBS



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INTRODUCTION

The concurrent rise in digital technology and internet accessibility has brought about significant challenges affecting the health of children and adolescents, particularly in areas such as gadget addiction, low health behavior standards, and cyberbullying. Increased digital device usage among youth has been shown to correlate with adverse mental health outcomes, including anxiety, depression, and insomnia, with studies indicating problematic internet use in children leading to negative emotional and psychological consequences. (1–3)

Moreover, the prevalence of cyberbullying in digital spaces poses a substantial threat to the mental well-being of adolescents, exacerbating stress and depression while contributing to a culture of social isolation and anxiety (4). As highlighted during the COVID-19 pandemic, where traditional support structures like schools were disrupted, children's dependence on digital outlets often replaced critical peer interactions, compounding feelings of loneliness and despair (5).

Community support systems, notably schools and parents, are pivotal in promoting health behaviors and mitigating these challenges. Schools serve as essential environments for delivering mental health services; however, the pandemic has highlighted vulnerabilities, with many students unable to access critical support (5). Parental involvement also plays a crucial role in fostering healthy digital habits among

youth; active monitoring and engagement can stem the tide of digital addiction and provide frameworks for discussing mental health and anti-bullying strategies at home. (2)

Furthermore, educational programs aimed at teaching digital resilience and proper use of technology can enhance the coping skills of adolescents, equipping them to better navigate the complexities introduced by the digital age (2). By collaboratively addressing these health challenges, parents and schools can help mold a healthier digital environment that supports the psychological and emotional growth of children and adolescents.

The lack of digital literacy education poses significant hurdles in addressing health outcomes in vulnerable populations, particularly in underserved communities. Without robust digital health literacy initiatives, individuals may struggle to access, understand, and utilize valuable health information that is increasingly available online. Studies indicate that enhanced digital literacy is crucial for promoting overall well-being and engaging in specific health behaviors and preventative measures. (6) Additionally, the situation is exacerbated by insufficient basic health screenings within these communities, leading to unmet health needs and inadequate preventive care measures. For instance, individuals with low digital literacy may not engage in initiatives aimed at regular health assessments, further isolating them from essential health services and community support networks (7). This

interplay highlights the urgent need for an integrated approach that combines health education with digital literacy, ensuring that community members are informed and empowered to take preventive action regarding their health, thereby fostering a proactive health culture within these communities (8).

This study aims to enhance health awareness among children, parents, and teachers through a comprehensive educational approach, while empowering the Indonesian migrant worker (PMI) community to adopt clean and healthy living behaviors (PHBS) and strengthen mental health. In addition, the program seeks to promote healthier, more responsible, and controlled use of digital devices to support optimal child development and foster a healthy, intelligent, and resilient generation in the digital era.

METHOD

This community service program adopted a community-based participatory approach involving children of Indonesian migrant workers (PMI), parents, and teachers at PPWNI Klang, Selangor, Malaysia. The study sample consisted of participants who voluntarily joined the program and met the inclusion criteria of being registered members of the PPWNI Klang community and willing to participate in both educational activities and evaluation. A total of 48 participants were included in the basic health screening component, while all participants

took part in the health education and empowerment sessions.

The program began with coordination and a brief needs assessment conducted in collaboration with PPWNI Klang representatives to identify priority health concerns related to digital device use, clean and healthy living behaviors (PHBS), and psychosocial issues such as bullying. Based on these findings, a structured intervention was developed and implemented through interactive lectures, group discussions, demonstrations, and role-play activities. Educational materials focused on psychoeducation regarding the prevention of gadget addiction, the promotion of PHBS in daily life, mental health awareness, and bullying prevention strategies, and were tailored to the characteristics of children, parents, and teachers.

In addition to the educational intervention, basic health examinations were conducted for consenting participants. Health screening included measurements of total cholesterol, random blood glucose, and uric acid levels using portable diagnostic devices. Individual screening results were immediately communicated to participants, accompanied by brief counseling on healthy lifestyle practices and recommendations for further medical follow-up when abnormal values were identified.

Program evaluation and monitoring were carried out using pre- and post-intervention questionnaires to assess changes in participants' knowledge, attitudes,

and awareness related to health behaviors, digital device use, and bullying prevention. Behavioral observations were also conducted during the sessions to assess participant engagement and responsiveness. Data from the questionnaires and health screenings were analyzed descriptively to summarize participant characteristics, health profiles, and changes following the intervention, providing evidence of the program's contribution to enhancing health awareness and empowerment within the PMI community.

RESULT

This program successfully reached 48 participants, including children of Indonesian Migrant Workers (PMI), their parents, and teachers at PPWNI Klang, Selangor, Malaysia, who participated in psychoeducation sessions and basic health examinations. The basic health examinations focused on three key indicators to screen the community's metabolic health status. Average test results are presented in Table 1.

Table 1. Results of Basic Health Screening Among Participants

Health Indicator	Mean Value	Interpretation
Total cholesterol (mg/dL)	205.85	Indicates a tendency toward hypercholesterolemia
Blood glucose (mg/dL)	107.23	Within normal to borderline range
Uric acid (mg/dL)	7.05	Elevated, suggesting risk of hyperuricemia

A total of 48 participants underwent basic health screening during the program. The results showed a mean total cholesterol level of 205.85 mg/dL, indicating a tendency toward hypercholesterolemia among participants. The average blood glucose level was 107.23 mg/dL, which falls within the normal to borderline range. Additionally, the mean uric acid level was 7.05 mg/dL, suggesting an increased risk of hyperuricemia. These findings highlight the presence of non-communicable disease risk factors within the community and underscore the importance of early health screening and preventive health education.

DISCUSSION

The prevalence of hypercholesterolemia is increasingly concerning, particularly given its association with various lifestyle-related health risks prevalent in contemporary society. Research indicates that a significant portion of the population grapples with dyslipidemia, which is often exacerbated by unhealthy dietary habits and lifestyle choices, such as a high intake of fast foods and low physical activity levels (9). These habits are commonly exacerbated in younger demographics, raising concerns about the early onset of cardiovascular diseases linked to elevated cholesterol (10,11). Furthermore, epidemiological data

reflect alarming trends, with hypercholesterolemia becoming more prominent among adolescents and young adults due to sedentary lifestyles associated with excessive screen time (11). Therefore, implementing early preventive interventions, such as educational programs about healthy dietary habits and increased physical activity, is crucial. These interventions can significantly mitigate health risks associated with hypercholesterolemia and improve long-term outcomes in both physical and mental health (12,13).

Psychoeducation plays a pivotal role in facilitating behavioral change by enhancing knowledge and self-efficacy among individuals facing various health and social challenges. This method has proven effective in improving coping mechanisms and reducing symptoms associated with mental health issues, providing individuals with essential information and tools for conflict resolution and stress management (14,15). Community-based empowerment initiatives complement psychoeducational efforts by fostering collective strengths and resilience, thereby creating an environment conducive to positive behavioral changes. (16,17)

Furthermore, strengthening collaboration among stakeholders—including healthcare providers, community organizations, and families—ensures holistic support systems are in place, enhancing the effectiveness of psychoeducation in various settings (18). By integrating these strategies, communities can foster healthier lifestyles

and ultimately elevate public health outcomes (19).

Despite the positive outcomes of the program, several challenges and limitations should be acknowledged. First, the number of participants involved in the basic health screening was relatively limited, which may restrict the generalizability of the findings to the broader Indonesian migrant worker (PMI) community. Second, the program was implemented within a short time frame, and the evaluation primarily focused on immediate changes in knowledge and awareness; therefore, long-term behavioral changes related to PHBS, digital device use, and bullying prevention could not be assessed. Third, the assessment of behavioral outcomes relied partly on self-reported questionnaires and observational data, which may be subject to response bias and social desirability bias. Additionally, variations in age, educational background, and digital literacy among participants posed challenges in delivering uniform educational content, requiring facilitators to continuously adapt the communication approach. Finally, limited access to advanced diagnostic tools and follow-up healthcare services constrained the ability to conduct more comprehensive health assessments and longitudinal monitoring of participants' health status.

The sustainability of school-based health promotion initiatives greatly depends on the integration of digital health literacy and the establishment of replicable models within various communities (20). Digital

health literacy empowers students, parents, and educators with essential information about health-related topics, thus facilitating informed decision-making and active participation in health-promoting behaviors (21)

By employing platforms that are interactive and adaptable, such as digital calculators for health assessments, communities can enhance their involvement in nutrition and general health programs, ensuring these initiatives resonate with local needs and practices (22). Furthermore, the replication of successful models, as demonstrated in diverse settings such as Uganda and rural areas of Ethiopia, emphasizes the importance of cross-sectoral collaborations in sustaining health promotion efforts. (23,24) Such collaborations allow for the sharing of resources, best practices, and strategies tailored to specific community contexts, ultimately contributing to sustained health benefits across different populations (25).

CONCLUSION

The Health Awareness and Youth Empowerment Program in the Digital Era effectively enhanced health knowledge and awareness among children of Indonesian migrant workers (PMI), parents, and teachers through a community-based and participatory approach. The integration of psychoeducation on clean and healthy living behaviors (PHBS), mental health, responsible gadget use, and bullying prevention, combined with basic health screening, enabled early identification of potential non-communicable disease risk factors, particularly hypercholesterolemia. The program demonstrated the importance of collaborative partnerships with community-based educational institutions such as PPWNI Klang in promoting preventive health and youth empowerment. Overall, this initiative shows strong potential to contribute to the development of a healthier, more informed, and resilient young generation capable of navigating the challenges of the digital era, while also providing a model that can be adapted and replicated in other migrant communities.

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