

## Bridging the Gap: Young Adult's Need and Stakeholder's Ability to Provide Health Information in Indonesia and Australia

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### Abstract

*This study aimed to investigate the health information desired by young adult and health education that has been carried out by stakeholders. The research method was quantitative and cross sectional. Data collection was carried out online through a survey monkey. The total number of respondents for this study was 529 students. The result showed that majority of young adults in Indonesia wish to know more about nutrition and healthy eating, while the majority of young adults in Australia want to know more about mental health. Health education to young adults was more effective through social media. One of the health education methods used by stakeholders was outreach, seminars and peer training. However, to facilitated the need for information through online platform, stakeholders faced challenges were varied.*

**Keywords:** *Health Information, Stakeholders, Students, Young Adults, Good Health and Wellbeing, Quality Education.*

### Introduction

Young adults was a vulnerable population prone to various complex problems related to physical changes, nutritional adequacy, psychosocial, emotions and intelligence development which eventually lead to conflicts within themselves which then affect their health (World Health Organization, 2004). The lack of health information in accessible media may affect young adult knowledge and health (UNICEF, 2020). Sedentary activity in front of the gadget's screen may increase among young adult (Nogueira-de-almeida et al., 2020). Limited mobility for outdoor activities and increasing online school learning tend to reduce the physical activity of young adults. Sedentary physical activity patterns cause the energy released at minimal which resulting in obesity (Ministry of Health of the Republic of Indonesia, 2018a).

The trend of obesity in children and young adults in the world has increased tenfold, from 11 million in 1975 to 124 million in 2016 (World Health Organization, 2017). The prevalence of obesity in young adults aged 19 years old in Indonesia in 2013 was 4.4% (Ministry of Health of the Republic of Indonesia, 2013). The number increased in 2018 where prevalence of obesity in young adults aged 19 years in Indonesia was 8.9% (Ministry of Health of the Republic of Indonesia, 2018b). This trend showed an increase from Health basic data from 2013 to 2018. The similar situation found in Australia, where young adults aged 15-24 years in 2017-2018 in Australia were more likely to be obese compared to people of the same age 10 and 22 years previously. (Australian Institute of Health and Welfare, 2020b).

College students are prone to have higher potential for stress (Duffy et al., 2019). Mental health cases in young adults in the world have reached 10-20%, where 50% were young adults aged 14 years old and 75% were in their mid-20s (World Health Organization, 2019). Mental health problems in young adults accounted for 20% of cases and contribute to an increase in suicides. The suicides cases was the third leading cause of death in children aged 15-19 years in the world (UNICEF, 2019). The prevalence of young

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adults aged 15-24 years old suffering from mental emotional disorders was 10% or 157,695 cases in 2018 (Ministry of Health of the Republic of Indonesia, 2018b). This prevalence was higher than in 2013 which was 5.6% (Ministry of Health of the Republic of Indonesia, 2013). Of all age groups, young people (ages 18-24 years old) were most likely to experience high or very high levels of psychological distress (15,2%) in 2017 to 2018 (Australian Institute of Health and Welfare, 2020a).

Overall, young adults has postif attitudes in using the internet to search for health-related information, this information includes sensitive topics such as sexual health and violence, as well as less sensitive topics such as exercise and nutrition (Park & Kwon, 2018). Individuals tend to use internets to search health information. This situation made the internet as primary source of information. The easy access to physicians without the barrier of time and wide coverage of information were few of advantages provided by the internet despite of the low credibility and reliability of health information it provided. The main types of information sought were a healthy lifestyle (healthy eating and physical exercise), and prevention of chronic disease or infection (Chu et al., 2017).

Based on the results of previous research in 2020, stakeholders have a variety of young adult's health program. Programs from UNAIR Help Center stakeholders were socialization, campaign, consultation and assistance. The programs of Family planning agency were Youth Resilience Development and GenRe. Programs from NGOs were socialization, peer educators and volunteer formation. Programs from the Health Office were youth Posyandu and Saka Bakti Husada. However, these similer programs conducted by the stakeholders were uncoordinated in synchrony (Nurmala et al., 2020). All of these programs have almost the same activities as developing education media nd training youth to become peer educators. However, the results of research on 854 young adults showed that only 52.7% (n = 450) of students aware about the peer educator program and 76.2% unaware of the existence of youth health programs from stakeholders (PKPR, PIK-KRR). The study also found that there were many similar health programs in several schools (Muthmainnah et al., 2019; Nurmala et al., 2020).

One of the strategies established to implement the peer education policy was the implementation of young adult health coaching across programs and across sectors that included government and private sectors, as well as NGOs. The involvement of these stakeholders, from policy makers to policy implementers in youth health programs was very important. Multi-sector collaborative networks were one of the keys to the success of youth health programs. However, previous research showed that stakeholders with youth programs were not synergized. Some of these stakeholders also felt that they did not have power to make changes that lead to passive involvement in the youth program (Muthmainnah et al., 2020). This paper described the perspective of youth regarding the health information that they desired and the information provided by the stakeholders. The findings will help policy maker to bridge the gap between young adult's need and stakeholders' ability to provide the information needed by young adults.

## Methods

### *Design Study and Participants*

The research method used was mixed methods. The population in the quantitative method was active students of Airlangga University (Indonesia) and Griffith University (Australia) aged 17-24 years old. Samples were randomly selected in October-November 2019. The total sample was 232 Indonesia students and 297 Australia students.

Participants in the qualitative method were selected by purposive sampling. Participants came from various stakeholders, including university-level counseling institutions, East Java Provincial Family Planning Agency, mass media, telecommunication providers, NGOs, Surabaya City Empowerment of Family Welfare, Surabaya City Health Office, Primary Health Care, Students, and Stakeholders from Australia. The participant recruitment process began with a coordination meeting between researchers and informants regarding the aims and objectives of the study, then a meeting was arranged for an online Focus group Discussion (FGDs). Researchers conducted FGDs in July to August 2020 using the FGD guidelines. The

FGD was conducted during a pandemic to follow up on findings from survey data conducted before the pandemic.

### *Tools for Data Collection*

The data collected in this study was distributed using the online questionnaire. The participants in this study were familiar with the online platform and online surveys were preferable for their easy access for young adults. In addition, recruitment through the Internet was an ideal way to find youth who were involved in searching online for information. The questions in the online survey were the personal information, the living arrangement, their field of study and their preferable health topics. These questions helped to describe their background and access to health information as part of identifying the gap between the health information that they need and they got from various stakeholders.

For the qualitative part, we recruited various stakeholder for the FGDs. The FGDs lasted approximately 60-90 minutes, facilitated by researchers and recorded with video for transcript and analysis. Before the FGDs began, participant information sheets and explanations were provided, including informant rights, records, and confidentiality. The questions for the FGDs include the description of young adult's program conducted by the stakeholders, their opinions in regards to the need of young adults for health information, and the challenges they faced in providing the health information for the young adults.

### *Statistical Methods*

The data that has been obtained were analyzed by descriptive statistical method using IBM SPSS version 21. The analysis was used to describe each of the variables studied. The results of the analysis are displayed in the form of a frequency distribution with a percentage.

The analysis begins by making a transcript of the FGDs results, then identifying the themes and phrases that emerge and categorizing the data against these themes. Data analysis is used to describe methods or strategies for young adult health education.

## **Results**

### *Characteristics of Respondents*

The online survey was completed by respondents with a total of 529 students. Table 1 showed that the median age of respondents was 19 years old, majority of gender was female. Most of these respondents lived with their parents, their economic status was quite well-off, and the most college majors from Australia was health, while from Indonesia was non health field.

**Table 1. Characteristics of Survey Respondents**

Characteristics	Australia	Indonesia
Age	Median age (range)	
	19 (17-34)	19 (17-23)
Gender	n (%)	
Male	72 (24.2)	60 (25.9)
Female	219 (73.9)	172 (74.1)
Other Identification	6 (2)	0
Country	n (%)	
Indonesia	0	232 (100)
Australia	297 (100)	0
Living arrangement	n (%)	
Living alone	10 (3.4)	52 (22.4)
Living with partner/ friends	112 (37.8)	60 (25.9)

Characteristics	Australia	Indonesia
Living with parents/ family	175 (58.8)	120 (51.7)
Family background	n (%)	
Not well-off	86 (28.9)	29 (12.5)
Quite well-off	181 (60.9)	173 (74.6)
Wealthy	30 (10.1)	30 (12.9)
Field of study	n (%)	
Health	163 (54.9)	62 (26.7)
Non-Health	134 (45.1)	170 (73.3)
Total	297 (100)	232 (100)

Table 2 showed the number of FGDs participants were 38 people from ten different types of stakeholders. Most participants were women, aged  $\leq 40$  years old, length of work in institutions were 10 years or less, and length of study for student as stakeholders were 2 years or more.

**Table 2. Characteristics Of FGD Participants**

Category	n	%
Sex		
Female	26	68.4%
Male	12	31.6%
Age		
$\leq 40$ years old	22	57.9%
$> 40$ years old	16	42.1%
Institution		
College counseling institute	6	15.8
Family Planning Agency	6	15.8
Mass Media	1	2.6%
Communication Provider	2	5.3%
NGOs	4	10.5%
Empowerment of Family Welfare	3	7.9%
District Health Office	2	5.3%
Primary Health Care	1	2.6%
College Students	10	26.3%
Australia's University Professors	3	7.9%
Work Experience		
$\leq 10$ years	16	57.1%
$> 10$ years	12	42.9%
Length of study (College Students)		
$\leq 2$ years	3	30%
$> 2$ years	7	70%
Total	38	100%

#### *Interest In Knowing More About Different Health Topics*

Table 3 showed that the majority of respondents at Indonesia 'strongly agreed' that they wanted to know more about nutrition and healthy eating (94.8%, n = 220) while the majority of respondents at Australia 'strongly agreed' that they wanted to know more about mental health, and nutrition and healthy eating (81.8%, n = 243).

**Table 3. Health Topics That Students Want to Know More About**

Health topics	Australia N = 297			Indonesia N = 232		
	Disagree n (%)	Neither agree nor disagree n (%)	Agree n (%)	Disagree n (%)	Neither agree nor disagree n (%)	Agree n (%)
Alcohol	72 (24.2)	90 (30.3)	135 (45.5)	22 (9.5)	46 (19.8)	164 (70.7)
Drugs	72 (24.2)	69 (23.2)	156 (52.5)	20 (8.6)	32 (13.8)	180 (77.6)
Mental health	18 (6.1)	36 (12.1)	243 (81.8)	8 (3.4)	14 (6)	210 (90.5)
Nutrition and healthy eating	20 (6.7)	34 (11.4)	243 (81.8)	2 (0.9)	10 (4.3)	220 (94.8)
Tobacco/cigarettes	135 (45.5)	90 (30.3)	72 (24.2)	16 (6.9)	29 (12.5)	187 (80.6)
Tobacco/vaping	130 (43.8)	91 (30.6)	76 (25.6)	15 (6.5)	40 (17.2)	177 (76.3)
Reproductive health (e.g. babies)	57 (19.2)	65 (21.9)	175 (58.9)	7 (3)	17 (7.3)	208 (89.7)
Sexual health (e.g. Sexually Transmitted Infection)	47 (15.8)	64 (21.5)	186 (62.6)	12 (5.2)	26 (11.2)	194 (83.6)
HIV/AIDS	79 (26.6)	83 (27.9)	135 (45.5)	11 (4.7)	30 (12.9)	191 (82.3)

The students felt the need to seek for health information because they felt that it is their responsibilities to educate others as mentioned in the following transcript:

“...there was also the demands as a health student, so friends also ask me about health and I need to find out about it (health information).” (Student H, age 20 years old).

The stakeholders understand the need to educate others, therefore they have peer training as peer counselor for young adults as mentioned in the following transcript:

“..through peer training, peer counselor” (NGOs)

In regards to the topic in health information, the students desired information regarding nutrition and healthy eating. The reason for the chosen topics was the experience of body shaming as current indicators for beauty, proportional body, and smooth skin. Body shaming experiences by students may come from parents, friends, social media, and the social environment. The following were the information from the interview transcripts:

“... Because young adults' minds are still young, they have to be beautiful, thin, smooth so that they can access information such as nutrition, diet, body weight because of body shaming. For example, parents who compare thin and fat. Image of young adults such as ideal body, smooth skin, beautiful can be from their parents. So that information on nutrition, physical activity, body weight becomes accessible because it is demanding. Apart from family, also from friends. from friends including bully but still in words. Fat people who get bullied a lot.” (Student A, age 20 years old)

“...environment and social media also affect the image of young adults.” (Student E, age 20 years old)

Apart from the influence of body shaming, attraction to the opposite sex during puberty influenced young adults to pay more attention to their appearance.

“...appearance is important, there are psychological factors that support the physical appearance due to attraction to opposite sex” (Student F, age 19 years old)

The other topic that students wanted to know more was information on mental health especially how to deal with stress. The reason young adults wanted to know more about mental health was because they experienced many problems for the first time without knowing how to solve them.

“...young people want to know more about stress management because teens have problems and they haven't been able to deal with it as wisely as adults. Many young people seem to think that they are depressed, so they look for the signs of depression and how to deal with it.” (Student D, age 20 years old)

“...In a phase like this (pandemic) is very necessary to get information regarding mental health. People need to socialize, but at this time they are asked to distance themselves so they are bored and mentally down, even though there is social media” (Student H, age 20 years old)

Student's concern for health information increased so that they need information regarding the corona virus and the implementation of appropriate health protocols. The fear of catching this virus encouraged young adults to maintain their health.

“...we demand the information out of fear. Right now, because there is a corona, I am afraid of getting Covid19 so I seek information about COVID19.” (Student B, age 21 years old)

“...want to meet with friends so that we need access to pandemic information to know the application of health protocols.” (Student C, age 20 years old)

The most important and relevant health topics for young adults that have been implemented by stakeholders in accordance with the needs of young adults were mental health, nutrition and healthy eating.

“...mental problem becomes very important to provide reinforcement to students so that they can go through problems that may be for others, problems that are not that heavy but for them can be very heavy...” (College counseling institute)

“...Health problems that I mentioned earlier, namely nutritional problems, namely problems with anemia, over weight problems, hypertension.” (Primary Health Care)

#### Young adult Health Education Strategy during COVID19 pandemic

Health education to young adults during the pandemic was more effective through social media. Social media was a chosen platform due to fast in conveying messages and has many users from various circles.

“...info on social media is faster and more accessible to many people.” (Student A, age 20 years old)

“...more on social media, because doctors and health professionals have social media and have their own way of conveying health messages.” (Student F, age 19 years old)

The type of social media that in demand by young adults today was Instagram. According to the students, Instagram was easier to understand and has interesting contents. In addition, Students also mentioned other medias such as YouTube, Tik Tok, websites, and journals.

“...the reason I like Instagram is because the narratives are easier to understand. The reason for Youtube is because it is not only narrative but explained with images (audio visual).” (Student C, age 20 years old)

“...often see health information on Tik Tok. Tik Tok is packaged in the form of a video that is easy to understand at a glance... the video is simple and easy to understand.” (Student F, age 19 years old)

“...I also accessed the WHO and the Ministry of Health's website because the health promotion and posters presented were also quite interesting.” (Student H, age 20 years old)

“..from the journal. More scientific and based on research results.” (Student B, age 21 years old)

Stakeholders understand the need for online platform to provide health information. Therefore, stakeholders provide health informations by making videos, e-leaflets, and zooming meetings for their outreach program. Some of the health education methods used by stakeholders during a pandemic were outreach, seminars, peer training

“...various digital technologies were used, such as Website, YouTube, Zoom, Facebook, Instagram, and Twitter” (Australia's University Professor 1)

“...make short videos, or leaflets that can be e-leaflets so they can be distributed. Later there could also be community gatherings like this with a zoom, now this can be used for socialization, to strengthen each other” (Family Planning Agency)

“...Every year we also hold competitions, yes, the competition is a form of socialization, then we also hold seminars, usually in collaboration with student's body” (College counseling institute)

## Discussion

Student respondents in both countries were dominated by women and come from relatively well-off families. This high income families showed that they have many access to various health information from various media. A higher income level was associated with a stronger search for information on sustainable intentions (Hsu et al., 2014). Nearly half of students in both countries lived with their parents, this situation indicated a lower degree of independence. Therefore, parents still can monitor the type of informations and media access by the students as part of social control (Swann et al., 2018). Parents may acted as mediators in the use of media in students (Warren, 2017). The level of independency should be lower for boys as they regarded their parents or family as the main supporting individuals (Swann et al., 2018).

This study showed the different information needed by the students from Indonesia and Australia. For Indonesian students were information regarding nutrition and healthy eating related to body image (physical appearance). As for Australian young adults, they need information on mental health. These topics chosen by Indonesian and Australian students showed similarity, they need to ensure their nutrition intake while maintaining their mental health. As the definition of health not only in the form of physical health but also the health of mental and social.

Previous study showed that the existence of social distancing in COVID-19 pandemic can increase sedentary activities because more time is spent in front of screens (Nogueira-de-almeida et al., 2020). This can increase the risk of obesity in young adults. In addition, young adults were in theage group that most vulnerable to stress and anxiety. This condition of stress and anxiety was higher during the COVID-19 pandemic which may increase the risk of mental health problems. Many social activities were limited may become new pressures on this vulnerable group of young adults during the COVID-19 pandemic (Iqbal & Rizqulloh, 2020).

Nutrition and healthy eating topics were important for young adults especially at this age they were vulnerable to peer pressure. The peer pressure as part of social acceptance lead to consuming non-nutritious foods such as pizza, burgers, soft drinks, chocolate and fast food. In addition, teenage girls may skip meals because of their anxiety about their body shape, that may lead to malnutrition. The situation lead to other health problems as young girls were prone to anemia with less intake of nutrients. The high incidence of malnutrition and poor eating habits in young adults can lead to future development of osteoporosis, obesity, hyperlipidemia, and height.

Young adults mostly skipped meals and get used to snacking. They ate whatever available regardless of nutritional content. Most young adults also preferred non-vegetables foods than simple meals with nuts and vegetables. Teens agreed that they should eat more healthy nutritious foods, but some of them were more concerned with taste. The majority of young adults preferred foods that contain lots of fat, salt and sugar, as well as more refreshing carbonated soft drinks. Some of the young adults said they could not buy healthy food because of their limited pocket money. Therefore, even though they knew that ready-to-eat food was poor in nutritional value, they were still consume it for convenient and easy to obtain (Barooah, 2012). In addition, young adults were also faced with a lot of college assignments. If young adults usually spend time off playing with friends, during a pandemic they were forced to stay at home so that for a long time it can cause boredom that triggers stress. (Setyaningrum & Yanuarita, 2020).

This study showed that the majority of stakeholders heading in the right direction to create a youth health program according to the desires and needs of young adults. Stakeholders created health information regarding nutrition and healthy eating that related to body image and peer pressure to have an "ideal" and attractive body. One of the big influences in body shaming behavior was social media. Stakeholders also understand the importance of young adult health in the realm of mental health, especially in relation to the stress experienced by young adults, such as college assignments and peer pressure. The potential trend was higher in the pandemic era where the mobility of young adults was limited in addition to the higher load of assignment in online lectures. Online assignments have little variation of activities compared to offline assignments that may create boredom.

Stakeholders in running youth health programs during the pandemic have utilized the media that most accessed by young adults, including Instagram, YouTube, and websites. Currently, the use of social media was one of the main media for young adults (Todaro et al., 2018). There were 130 million active social media users in Indonesia. Most users were in the young adult age group (Mehmood, 2018). One of the social media that was most favored by most of the students was Instagram. On Instagram, users can present themselves in a visual form (for example images and videos) and in writing. Instagram prioritizes visuals in its use, coupled with the editing features available on Instagram (Salim et al., 2017). Users on Instagram can present themselves visually (such as through pictures and videos) or via text. But visual presentation was the most dominant on Instagram because it was impossible to upload posts without images. Instagram users were not only communicated with images and text, but also frequently used "hashtags" and "emoticons", and users can search for specific images using hashtags (Nilsson, 2016).

Apart from Instagram, the Youtube platform was also a preferred health education medium for young adults because information can be explained audio-visual so that it can help clearer understanding of the information conveyed. The use of video media content was considered practical and useful, easy to follow and understand, and videos make learning about health a better experience than it should be (McNab & Skapetis, 2019). Today's society was based on multimedia, so images can always attract attention because the point of interest was very striking. The message to be conveyed was made easy to understand through social media. Individuals were quick to grasp the information received from social media. Therefore, visual communication can bring answers people's needs because the information conveyed can be of high value, and it was packaged in a simpler, attractive, and modern way.

Health programs from various stakeholders have the same goal. One of the goals was an effort to reduce young adult health problems in Indonesia. These efforts have been made through government programs and non-governmental organizations, but in practice they were considered ineffective. Therefore, young adult health promotion efforts 4.0 need to be developed. Young adult Health Promotion Model 4.0 was a technology-based youth health promotion program based on the needs of today's youth. As technology develops, online platforms were becoming an increasingly prominent social context for young adults. Teens were often early adopters, savvy users, and innovators in the use of technology. This capabilities were not only creates new vulnerabilities but also presents new opportunities for positive impacts in particular use of technology to promote learning and adaptation of healthy behaviors. The use of technology can be used as an intervention strategy in young adult health promotion. Collaboration across disciplines such as medicine, psychology, public health, and computer science can create exciting innovations to use digital technology to improve health in young adults (Giovannelli et al., 2020). Teens' lives were increasingly

intertwined with technology, around 92% of teens go online every day and 95% of teens reported owning a smartphone (Anderson & Jiang, 2018). Based on a survey from We Are Social, data on internet users in Indonesia in January 2019 reached 56% of the total population (268.2 million) and 56% were active on social media, 91% of total internet users used mobile phones, and 150 million were active on social media. Most internet users were in the young adult age group (Social, 2019).

Health education to young adults during the pandemic has been carried out from various stakeholders. However, there was no synergy among all stakeholders in delivering health education to young adults during the pandemic. Another challenge for stakeholders was to create a program using a variety of technologies, especially during a pandemic, so that it can attract a wider range of young adults' interests. The need for stakeholders to understand the media used by youth was also very important. By using the same media used by young adults today, the message to be conveyed will be able to reach young adults optimally. Changes in society will also become more pronounced when those who were far can be closer and those who were closer became farther away. In a cultural society, any reprimand was replaced through social media technology.

## Conclusions

Young adult education strategies were still ineffective because the material that young adults want at this time has not been widely obtained, especially through social media. The material that has so far needed to be updated were about coronavirus, young adult nutrition which of course will increase young adult immunity during the pandemic and mental health, especially when young adults were faced with a lot of pressure from online learning and rapid flow of information. This improvement of health information was a challenge for stakeholders to make programs using technology to be varied, especially during a pandemic.

During the pandemic, young adults experience stress due to the uncertainty of information about the corona virus that they access, especially through social media, which according to them was still difficult to distinguish between hoax information and what was not. Stakeholders, especially schools that were considered to be places for the development of reliable knowledge, need to provide access to information to young adults through social media. Studies also showed young adult trusted their parents which indicates that students' families need to be educated as well. The school can cooperate with the health service in the area where the student lives to hold webinars targeting the families of students, create media that can be accessed by families in public places and incorporate educational elements into the health programs carried out.

## Acknowledgments

The acknowledgment for all students in Indonesia and Australia who participated in this research, as well as to stakeholders who shared their experiences about youth health education programs.

## Declaration of Interest Statement

All authors declare there is no declaration of interest in this study.

## Credit Authorship Contribution Statement

Ira Nurmala: Conceptualization, Format Analysis, Funding acquisition, Investigation, Methodology, Project administration, Resources, Supervision, Validation, Writing - original draft, Writing - review & editing. Neil Harris: Writing - review & editing. Lutfi Agus Salim: Writing - review & editing. Yuli Puspita Devi: Formal Analysis, Writing - review & editing. Asma Nadia: Formal Analysis, Writing - review & editing

## Ethical Approval and Consent to Participate

This research was approved by the Health Research Ethics Commission, Faculty of Nursing, Airlangga University no 2026-KEPK. The entire online survey was explained to university students to be filled in

themselves by first filling out the informed consent. This research was voluntary, and the information was collected anonymously.

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