

THE PARASOCIAL RELATIONSHIPS BETWEEN SOCIAL MEDIA FITNESS
INFLUENCERS AND YOUTH FITNESS BEHAVIOR IN MALAYSIA

LOW XIN YI

A RESEARCH PROJECT

SUBMITTED IN

PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE BACHELOR OF CORPORATE COMMUNICATION (HONOURS)

FACULTY OF CREATIVE INDUSTRIES

UNIVERSITI TUNKU ABDUL RAHMAN

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LOW XIN YI

APPROVAL FORM

This research paper attached hereto, entitled “The parasocial relationships between social media fitness influencers and youth fitness behavior in Malaysia” prepared and submitted by Low Xin Yi in partial fulfillment of the requirements for the Bachelor of Corporate Communications (Hons) is hereby accepted.

Date: _____

Supervisor

Supervisor's name: Dr Sharon Jacqueline a/p Albert Wilson

ABSTRACT

Social media fitness influencer was a new form of digital health communicator influencing the public through healthy behaviors. Geysler (2022) mentioned that their high frequency of sharing on social media has attracted more public to pay attention to their latest update by engaging themselves towards fitness. The largest population was likely to be influenced by social media influencers belongs to youth (Dopson, 2022). However, few Malaysian contexts study how the social media fitness influencer can affect youth fitness behavior. Hence, this research aims to comprehend the parasocial relationships between social media fitness influencers and youth fitness behavior in Malaysia. The quantitative research method will be utilized in this study, while SPSS software was used to analyze acquired data. 202 youths between age of 15 to 24 have participated in the survey questionnaire. The results showed that trustworthiness, expertise, and attractiveness affected youth fitness behavior, and all hypotheses were accepted. Social cognitive theory has been applied to define the study's research objective and questions. Recommendations were applied to improve the limits of future study. In conclusion, all research objectives have been achieved while the research questions have been answered.

DECLARATION

I declare that the material contained in this paper is the end result of my own work and that due acknowledgement has been given in the bibliography and references to ALL sources be they printed, electronic or personal.

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DATE : 28 APRIL 2023

TABLE OF CONTENTS

	Page
ABSTRACT	i
DECLARATION	ii
TABLE OF CONTENTS	iii
LIST OF TABLES	iv
LIST OF FIGURES	v
LIST OF DIAGRAMS	vi
CHAPTERS	
I INTRODUCTION	
1.1 Background of study	1-3
1.2 Problem Statement	3-6
1.3 Research Objectives	6
1.4 Research Questions	6-7
1.4.1 Hypothesis	7
1.5 Significance of Study	7-8
1.6 Operational Definitions	8-10
1.7 Literature Review	10
1.8 Methodology	10

II LITERATURE REVIEW

2.1 Parasocial Interactions and Relationships	11-13
2.2 Source Credibility -Factors Affecting People’s Fitness Behaviors	13-15
2.3 Social Media and Fitness	15-17
2.4 Social Media Influencers in the Fitness and Health Industry	17-18
2.5 Attitude Homophile	19
2.6 Theoretical Framework	19-20

III METHODOLOGY

3.0 Introduction	21
3.1 Research Method	21-22
3.2 Hypotheses	23
3.3 Variables	23
3.4 Sample Size	24
3.5 Data Collection	24
3.6 Research Instrument- Online Survey	25
3.7 Questionnaire Design	26
3.8 Data Analysis Method	26-27
3.9 Reliability and Validity	27-28

3.10 Pilot Test	28-29
IV RESEARCH FINDINGS	
4.0 Introduction	30
4.1 Descriptive Statistics	
4.1.1 Demographic information of respondents	30-32
4.1.2 General information	32-35
4.1.3 Data coding	36
4.1.4 Means and standard deviation of independents and dependent variables	37-40
4.2 Reliability Analysis	
4.2.1 Cronbach's Alpha	41
4.3 Discriminant Validity Analysis	
4.3.1 Fornell-Larcker Criterion	42
4.4 Pearson Correlation Coefficient Analysis	42-44
4.5 Regression Analysis	44
4.5.1 Data screening	45
4.5.2 Date screening for outliers	45-48
4.5.3 Mahalanobis distance	48
4.5.4 Normal P-P plot standardized residual	49

4.5.5 Scatterplot	50
4.5.6 Model summary	51
4.5.7 ANOVA	52
4.5.8 Coefficients	53-54
4.6 Hypothesis Testing	54-55
V DISCUSSION & CONCLUSION	
5.0 Introduction	56
5.1 Summary	
5.1.1 Summary of descriptive analysis	56-57
5.1.2 Summary of inferential analysis	57-58
5.3 Discussion of Findings	
5.3.1 Trustworthiness	58-59
5.3.2 Expertise	59-60
5.3.3 Attractiveness	60-61
5.3.4 Summarise discussion of findings	61
5.4 Theoretical Implication	61-62
5.5 Limitations and Recommendations	63-64
5.6 Conclusion	64-65
REFERENCES	65-75

Appendix A	Questionnaire	76-81
Appendix B	Original Data	82-85

LIST OF TABLES

Table		Page
1	Pilot test	28-29
2	Demographic profile of respondents	30-31
3	General information	32-34
4	Code of measurement	36
5	Mean and standard deviation of the parasocial relationships developed by social media fitness influencers on youth	37-38
6	Mean and standard deviation of the effect of social media fitness influencers on youth fitness behavior	39-40
7	Reliability statistics tested with Cronbach's Alpha	41
8	Fornell-Larcker Criterion	42

LIST OF FIGURES

Figure		Page
1	How each generation is influenced by social media	3
2	Pearson correlation for the effect of parasocial relationship developed by social media fitness influencers towards youth fitness behavior	43
3	Case processing summary	45
4	Outlier of the parasocial relationship (Trustworthiness) developed by social media fitness influencers on youth	46
5	Outlier of the parasocial relationship (Expertise) developed by social media fitness influencers on youth	47
6	Outlier of the parasocial relationship (Attractiveness) developed by social media fitness influencers on youth	48
7	Normal P-P plot standardized residual	49
8	Scatterplot	50
9	Model summary	51
10	ANOVA	52
11	Coefficients	53

LIST OF DIAGRAMS

Diagram		Page
1	Social cognitive theory	20
2	Data collection procedure	24

THE PARASOCIAL RELATIONSHIPS BETWEEN SOCIAL MEDIA FITNESS
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CHAPTER I
INTRODUCTION

1.1 Background of Study

Social media has become a routine in our everyday life where everyone has a phone in hand. Living in this advanced technology era, we are also surrounded by technology and the internet. In general, social media is the collective term for websites that allow users to communicate, interact, and share information with one another behind the phone. Thanks to social media, we have more chances to interact and get in touch with people around us, such as friends, family, and communities. With that being said, this has made social media influencers to become trending in today's society. They are the group of people who connect brands with their audiences together and also build their brand on social media with their own interests and behavior such as sport, fitness, family-oriented, beauty, gaming, foodie, automotive, and so on. Geysler (2022) mentioned that the high frequency of sharing on social media had attracted and generated many followers. The followers will always pay attention to the influencer's latest updates or even change in behavior either positive or negative, with the influence of social media influencers. The social media influencers' creativity and attractive way of making content is one of the factors that drove them to receive a high number of followers within a short period of time.

Various kinds of topics are put on social media for discussion and in these two recent years, Covid-19 has become the most trending topic worldwide. People have paid more attention to their health and have begun to engage themselves more in physical exercises such

as Zumba or Aerobic. This has made social media fitness influencers more demanding as they can be known as the driving force in practising fitness behavior. In brief, social media fitness influencers are those who specialise in physical activities and fitness content (Durau et al., 2022). They are called “sports coach”, who shares health and fitness instructions on workouts without knowing whether their audience is performing fitness in a correct manner (Godefroy, 2020). Duplaga (2020) indicates that they succeed in reputation as able to satisfy public who are intent on improving their health and wellness. The exercise guide by social media fitness influencers on online platforms such as Youtube, Instagram, and TikTok enables the audience to improve their physical fitness by staying safe at home (Durau et al., 2022). For example, one of the Douyin (Chinese version of Tiktok) fitness influencers, Will Liu start his fitness live streaming during Shanghai's Covid-19 lockdown in April 2022. The use of the song of Jay Chou, one of the famous Taiwanese singers, simple fitness steps, and humorous guidance has increased his number of followers on the Douyin account by 384%, a total income of 10.47 million in 15 days, and the highest number of online viewers who exercise together during the streaming is over 1.1 million (“This Fitness Influencer’s Tiktok Exploded through the COVID Lockdown in Shanghai”, 2022). In addition, his female viewers shared the changes in body size after exercising with Will Liu. This has made the fitness trend to be viral online and make more online viewers pay attention to fitness streaming.

Furthermore, Dopson (2022) said that the largest population who is most likely being influenced by social media influencers falls under youth (Around the ages of 15 to 24), which carries 28%, while Millennials and Generation X carry 23% and 16%, respectively.

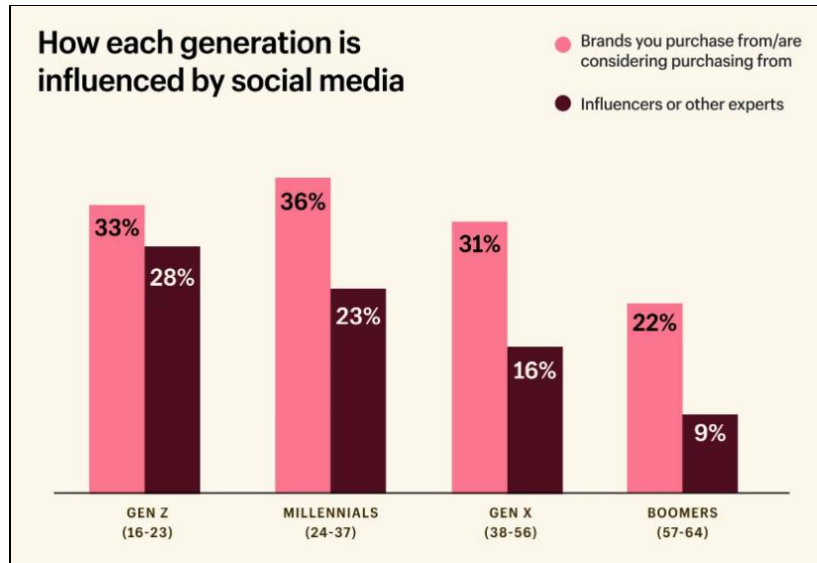


Figure 1. *How each generation is influenced by social media.* (Source: Dopson, 2022)

Besides, the top three fastest-growing influencers in Malaysia are fitness, family and food and drink (“Social Media Influencer Marketing in Malaysia,” 2020). Hence, this research aims to further understand the parasocial relationships between social media fitness influencers and youth fitness behavior in Malaysia.

1.2 Problem Statement

Social media fitness influencers have become the new form of digital health communicators who can influence the audience with healthy behavior. They motivate the audience to do more physical activities and exercise at home. During the COVID-19 pandemic, people are not allowed to visit gyms or parks, which has caused an increase in online workout content. The content produced by social media influencers is free, easy to access, and easy to learn. The audience can choose to exercise regardless of morning or night; the kind of workout that suits them; and most importantly, they can learn endless activities without paying a single cent. Durau et al. (2022) mentioned that although more fitness apps and online fitness platforms are being launched, more people still need to understand how

social media fitness influencers could affect user health-related behavior. This may be because the public is still unfamiliar with fitness influencers; also, people prefer outdoor exercising. Hence, this research aims to close this gap by understanding how the parasocial relationship in terms of trustworthiness, expertise and attractiveness enables influencers to influence Malaysian youth fitness behavior.

With the invasion of the Covid-19 pandemic a few years ago, almost everyone is forced to stay at home as many countries are mandatory lockdowns. This has made people worldwide very active on the internet, searching for fitness activities as outdoor sports facilities are prohibited from using (Li et al., 2023). Likewise, social media fitness influencers' content is free and easily accessible online (Durau et al., 2022). Since then, social media fitness influencers and fitness content have increased tremendously on the internet. Durau et al. (2022) stated that social media fitness influencers could also be known as health communicators as they use their trustworthiness, expertise, and attractiveness to stimulate the public's fitness behavior. According to Li et al. (2023), fitness content creation on YouTube increased by more than five times in 2020, and total likes of fitness content creation on TikTok have exceeded 66 million, and 56 thousand sports content creators have more than 10 thousand followers. This shows that social media fitness influencers are significant towards the public, especially during that pandemic. Looking back to the previous research, many researchers focus on different content posted affecting people's attitudes, intentions, and behaviour towards fitness. Nevertheless, there needs to be more research on how influencers affect publics' online fitness behavior, and the influence of social media fitness influencers on public fitness behavior is vague. Hence, this study aims to close the gap by answering how parasocial relationships developed by social media fitness influencers are able to affect youth fitness behavior in Malaysia.

Social media influencers help promote the brand and influence the audience to purchase behavior, values and lifestyles. As social media is becoming popular, parasocial relationships no longer only appear offline.) The presence of social media influencers on different channels like YouTube, Instagram, and TikTok gain followers and they will regularly watch their content (Hoffner & Bond, 2022). According to Hoffner and Bond (2022), when an influencer always shares their experience on living healthy lifestyles or promotes health information, the audience will either passively reveal the health-related information or actively seek more health information after exposure. Parasocial relationships help to promote healthy behaviour and prevent risk more effectively. However, there is a lack of studies investigating what has changed followers after watching fitness influencer content. Hence, this research will fill in the gap by looking into what has changed in followers' fitness behavior after they have followed social media fitness influencers.

According to Tricás-Vidal et al. (2022), social media fitness influencers have urged 68.1% of its sample to carry out physical activity, and most of them are female, which is around 82.3%. Females have been shown hoping for more integrity information posted on social media as this might make them more courageous in performing activities by fitness influencers. The student group, especially college students, was encouraged mainly by social media fitness influencers. They act as a tool in motivating them to have greater intention on fitness. The mental health outcomes information of physical activities appearing online, it could be forceful for physical activity motivation in Universities (Gilbert et al., 2021). Tricás-Vidal et al. (2022) indicate that social media fitness influencers have shown a better result in affecting audience physical activities than websites only with text. Therefore, this research's target audience will mainly focus on youth, which University students are part of the youth rather than the whole population.

With the above research, we can conclude that only the benefit of social media fitness influencers and the parasocial relationships and media figures influencing mental and physical well-being has been identified. However, very few studies mentioned how the social media fitness influencer can affect the audience's fitness behavior. Besides, most of the studies do not focus on a specific age group, such as youth, adults, or middle adults. Since youth is the enormous population being influenced by social media influencers, there is limited study studying it. Moreover, there was a limited study on the social media fitness influencer on youth fitness behaviour in Malaysia. Hence, this research aimed to find out the parasocial relationships between social media fitness influencers and youth fitness behavior in Malaysia.

1.3 Research Objectives

1. To understand the trustworthiness developed by social media fitness influencers towards youth fitness behavior.
2. To understand the expertise developed by social media fitness influencers towards youth fitness behavior.
3. To understand the attractiveness developed by social media fitness influencers towards youth fitness behavior.

1.4 Research Questions

1. What is the effect of trustworthiness developed by social media fitness influencers towards youth fitness behavior?
2. What is the effect of expertise developed by social media fitness influencers towards youth fitness behavior?

3. What is the effect of attractiveness developed by social media fitness influencers towards youth fitness behavior?

1.4.1 Hypotheses.

1. Hypothesis 1: Trustworthiness developed by social media fitness influencers has a positive relationship towards youth fitness behavior.
2. Hypothesis 2: Expertise developed by social media fitness influencers has a positive relationship towards youth fitness behavior,
3. Hypothesis 3: Attractiveness developed by social media fitness influencers has a positive relationship towards youth fitness behavior.

1.5 Significance of Study

The result of the study can be of great benefit to the following group:

1. Researchers

- The information collected from this research is able to help researchers to better understand the parasocial relationships between social media fitness influencers and youth fitness behavior in Malaysia. Moreover, the analysis and results shown in this study will develop valuable information for further research with a focus on the parasocial relationships, and social media fitness influencers affecting youth fitness behavior, especially in the Malaysian context. It could also assist the researchers to conduct more comprehensive research.

2. Readers

- The information and findings in this research paper help the readers to better understand the parasocial relationships between social media fitness influencers and youth, and how the social media fitness influencers are able to affect the fitness behavior of youth in Malaysia. They could also understand how important an influencer is in today's society, regardless of whether it is for a brand or for an individual who admires them.

1.6 Operational Definitions

Parasocial Relationships. Parasocial relationships refer to a unilateral relationship in which one party will spend their emotional energy, time, and interest on a character, however, the character is totally unaware of their existence (“Parasocial Relationships: The Nature of Celebrity Fascinations,” n.d.). Parasocial relationships are non-reciprocal socio-emotional connections with media figures such as social media fitness influencers, television stars, fitness celebrities, or even animated characters. The media user usually encounters the media figures through social media platforms, movies, talk shows, and many more (Vinney, 2021). When the media user imagines a connection with the media figures, they will view them as their role models, easily influenced by their lifestyles, attitude, and behavior. The environment of parasocial relationships becomes more interactive where media users is allowed to interact and communicate with the media figures, thereby strengthening the parasocial relationships.

Social Media. Social media is the incorporation of websites or platforms that enable the creation of web content, information sharing, and communication. Blogs, social networking sites, video-sharing sites, and podcasts can be considered as a form of social media (“Introduction to Social Media,” n.d.). In academics, social media enable students to

broaden their knowledge and solve their inquiries by searching related information; in person, it allows the public to connect with friends and family without the need to meet physically; in fitness, it lets people with busy schedules to seek for fitness inspiration; in businesses, it is a powerful tool to communicate with their existing customers or directing new customers meanwhile viral its brand (Lake, 2022). Social media has been known as a form of helpful marketing tool which enables businesses to develop their online presence and use of social media influencers to help them in creating brand awareness.

Social Media Fitness Influencers. Social media fitness influencers communicate any fitness-related information or physical activities to the public through social media. They will have their own groups of followers who always seek their latest information and this group of people will be easily influenced by their attitudes and behavioral intention (Durau et al., 2022). Tiller (2022) mentioned that social media fitness influencers have motivated their followers to actively participate in physical activities and with a lot of food and healthy eating determined content posted, many of their followers have been inspired and begun to pay additional attention to their own eating habits. This shows a positive relationship as the social media fitness influencers are able to influence their followers' healthy lives. The top social media fitness influencers in Malaysia include Steffi Sarge Kaur, Cathrynli, Bella Dally, and many more.

Fitness. Physical fitness refers to an individual's capability to carry out daily activities with excellent performance, stamina, and strength to manage illness, fatigue, stress, and minimize sedentary behavior. Fitness contains 5 essential components in which it includes flexibility, cardiorespiratory fitness, muscular endurance, muscular strength, and body composition (Newman, 2021).

Youth. Youth are those people at the age of between 15 to 24 years old (“Youth,” n.d.). In Malaysia, the people between this age could be Secondary school students, University or College students, fresh graduates, or an employee.

1.7 Literature Review

In this chapter, the literature review will discuss the research question of this research. The main discussion includes parasocial interactions and relationships, social credibility-factor affecting people’s fitness behavior, social media and fitness, social media influencers in the fitness and health industry, and attitude homophile. Furthermore, a theoretical framework will be employed to further explain the current study.

1.8 Methodology

In this research paper, quantitative research will be used to address the research problems. This method enables researchers to understand the trustworthiness, expertise, and attractiveness developed by social media fitness influencers towards youth fitness behavior. A minimum of 200 questionnaire will be distributed to collect respondents’ feedback on this research. The target audience of this research is Malaysian youth between the age of 15 to 24.

CHAPTER II

LITERATURE REVIEW

2.1 Parasocial Interactions and Relationships

Parasocial interactions refer to a media user's reaction to the media persona as their intimate conversational partner (Sokolova & Perez, 2021). The media user will feel a stronger sense of conversation with the media persona when the media persona is exposed more constantly in the eyes of the media user (Sokolova & Perez, 2021). If the media persona is increasingly more critical to the media users, parasocial relationships are more favourable to be built. The greater the exposure and attractiveness shown by social media fitness influencers, the higher the chance for positive parasocial relationships to occur, as it increases the chances for followers to keep following their updates. Parasocial relationships can be found between celebrity and their fans, who spend uncountable time and energy following the celebrity without the celebrity knowing. On the contrary, parasocial interaction is when the fans subscribe to the celebrity's social media page, allowing fans to follow them closely and understand their current status. Parasocial interaction may stimulate their relationship on social media (Sokolova & Perez, 2021). The fans will feel that liking and commenting on their post equals interacting and communicating with the celebrities.

As compared to celebrities, social media influencers are perceived as more accessible, authentic, and likeable due to their popularity in social media. Sokolova and Perez (2021) stated that celebrity seems to have a poor performance in the endorsement product as their target audience feels unable to feel attached to the celebrity. However, social media influencers can develop a high-quality relationship with their audience, which is known as a parasocial relationships (Lou et al., 2022). They do not have many restrictions compared to

celebrities, as they can freely interact with the public through stories (A feature in Facebook and Instagram where users can share posts, images, or videos visible for 24 hours, a like, reply and share function is available) or comment boxes. In addition, followers that foster a stronger relationship with the social media influencers tend to pay more attention to the influencers and significantly influence them. For instance, followers who share robust parasocial relationships with fitness influencers are more likely to follow their diet advice and have a greater intention to practice healthy lifestyles (Sakib et al., 2020). A researcher addressed this relationship as a trans-parasocial relation as a kind of collective reciprocity, simultaneous interaction, and co-creation (Lou, 2022). Although social media users can directly reach out to social media influencers, the relationship still needs to be fixed as social media influencers are said to have a relationship with the entire audience rather than individuals.

Furthermore, social media helps in sustaining established parasocial relationships as most of the time, and followers will get the chance to interact with the influencers through Youtube, Instagram, Twitter, and Weibo, in which the followers are able to know more about the influencers' strengths and backstage lives (Hoffner & Bond, 2022). When interpersonal communication occurs between social media influencers and followers, such as liking or replying to followers' comments, the parasocial relationships will also be strengthened. Roy and Mehendale (2021) added up by saying that the appreciation given by the influencers to the followers due to their long-term support will make them feel like their relationship is as close as comrades. This will enhance the follower's willingness to interact and positively impact users' intentions toward certain things. Based on the survey questionnaire result, Sokolova and Perez (2021) found evidence that parasocial relationships will influence non-exercising viewers' intention on continue watching fitness content as a way of keep following

them. As a result, it is believable that with a greater parasocial interaction will influence the audience to have a change in their fitness behavior by spending time with influencers.

2.2 Source Credibility -Factors Affecting People's Fitness Behaviors

The decrease in physical activity has significantly negatively impacted people's health. Social media fitness influencers have become the health communicators affecting people's health behaviors and the credibility of information delivered by the influencers determines the information's persuasiveness. Source credibility refers to how well the audience trusts the statement said by the influencers. It has been discovered to have a certain extent in improving communication efficiency when associated with an endorser (Chun et al, 2018). A social media influencer's credibility will directly affect whether the audience will listen to their message next time. Roy and Mehendale (2021) indicate that trustworthiness, expertise, and attractiveness determine how credible the source is and how well it could motivate people's fitness behavior.

Trustworthiness means that the public believes in the influencers and the information that the influencers have told. Lim (2021) said that the source of information must be honest, truthful or factual. Trustworthy information has been recognised as one of the main elements in early source credibility studies and recent research regarding the effectiveness of influencers (Durau et al., 2022). When the audience builds parasocial relationships with the influencer, they will ensure that what the influencer said and done is trustworthy. The influencers with a higher level of trustworthiness show higher persuasiveness to the public (Lim, 2021). Trustworthiness also influences the public's concerns about the reliability of fitness knowledge on Youtube. According to Noonan (2018), followers often consume products recommended by influencers as they have built trust in the influencers and feel that it is more reliable. The recommendation from an influencer has been said as the sincerest

advertising as compared to the brand speaking well of itself. Lou and Yuan (2019) also stated that social media influencers' high degree of trustworthiness contributes to the message's persuasiveness.

Expertise explained the perceived capabilities of the respective sources. In the discussion of the influencer's information, it does not matter whether the influencer is an expert, but what matters is whether they are considered as an expert. When the influencers are guiding on a fitness exercise, they seem like an expert giving instruction and guidance on fitness. Expertise is also defined as the degree of familiarity, understanding, and experience that one acquires from successive work in the same area of knowledge (Lim, 2021). Influencers showing their professional experience and knowledge when engaging with followers will make them have a higher sense of reliability (Chun et al, 2018). The more technical ability the influencers present, the more trust the public will build in them and the higher chance for the public to positively change their attitude (Wang & Scheinbaum, 2018). Besides, the endorsers are pleased to deliver accurate information to the public as they want to bond with each other, and followers will also believe whatever they say and share in the future. People who want to know about fitness will refer to fitness influencers, not beauty influencers.

Next, the attractiveness define as the audiences admire with the influencers because of their appearance and action. The attractiveness of influencers is usually judged by the audiences when they first meet the influencers, whether online or physically. Physical appearance, lifestyle characteristics, intellectual skills, way of behaving, and posture is the leading cause for the public to be attracted by the influencer. The higher the attractiveness of influencers, the more attention they will receive from the public, which could also lead to a more extraordinary reputation for brand endorsers (Lim, 2021).

According to Durau et al. (2022) study's result, trustworthiness has the strongest impact on both gender respondents' fitness behavior and followed by expertise and attractiveness. Nevertheless, trustworthiness was the strongest predictor on female motivating power, expertise was the strongest predictor of male motivating power, and attractiveness was said to have the strongest influence on both females and males' motivating power. Thus, it may benefit this research to investigate further the parasocial relationships developed by social media fitness influencers towards youth fitness behavior.

Many empirical studies on the consequence of celebrity and athlete endorsements have confirmed the significance of having these three factors for being a successful communicator (Durau et al., 2022). Apart from this, motivation comes from friends, families, or role models (Social media influencers) has been identified as a factor affecting the audience's participation in physical activities in non-social media contexts and fitness apps. According to Durau et al. (2022), a lower perceived physical fitness will contribute to a higher intention to work out with social media fitness influencers to improve people's physical fitness. The audience will memorise the influencers' behavior which will motivate their future behavior and lead them to work out based on what the social media fitness influencer taught.

2.3 Social Media and Fitness

Social media are essential in motivating people and sharing information, especially for the younger generations. Fitness is one trending topic influencers discuss on various platforms such as Youtube, Instagram or Facebook. Tiggemann and Zaccardo (2018) indicate that in terms of fitness, the term "fitspiration" was an online trend describing videos and photos posted on social media to inspire the audience to pursue a healthier lifestyle by eating

healthily and exercising. By referring to Sokolova and Perez (2021) hypothesis testing results, females have a higher intention towards virtual exercise after consuming the fitness video; however, males are less likely to be motivated by Instagram's "fitspiration". Social comparison can lead to more excellent intentions in exercising if the target can be fulfilled. There is no doubt that professional athletes inspire audiences to participate in sports, yet, influencers have a more significant influence on audiences than professional athletes. This is because the audiences view the influencers as their peer's giving guidance to them. At the same time, professional athletes have a more professional set of fitness exercises that is hard to pursue, creating a gap between both parties (Kleemans et al., 2018). Plus, their peers view fitness exercises from social media influencers perform as encouraging them to get fit together (Sokolova & Perez, 2021). Hence, influencers bring a positive result in fitness as the information told seems achievable and motivated.

Additionally, fitness influencers encourage "fitspiration" on social media to the broader audience by sharing exercise tutorials, coaching videos, motivational talks sharing their fitness tips and experience, and so forth. The audience can freely select the content they are interested in watching. A higher intention to exercise is more obvious to be shown in the younger generation as they are doing the same exercise together with the social media fitness influencers they admire (Sokolova & Perez, 2021). It does not only have a greater intention in continuously following them but also the workout they feature. The audience watching Youtube tutorial videos feels they are exercising with the influencers. Therefore, the intention for the audience to continue doing fitness exercises could be attributed to the intention provided by Youtube fitness videos (Sokolova & Perez, 2021). Apart from this, the audience's intention on fitness will also be affected by the influencer's emotions performed in the videos. When the influencers show excitement in their content, the excitement may also be transmitted to their audiences. As a result, it will contribute to this research as the trend of

fitspiration has shown that followers have a closer relationship with the influencers rather than professional athletes, and this is the reason why this research targets to investigate influencers and youth. Besides, audiences can freely select influencers' content that fits their interest, which increases their intention on fitness.

2.4 Social Media Influencers in the Fitness and Health Industry

Social media has become our daily basis, and we will check on them daily. It enables people to post videos or images using an electronic device; thus, it causes people who make health and fitness content on social media to become famous (Noonan, 2018). Alexia Clark, a social media fitness influencer, will post her workout routine daily and a series of videos to answer the inquiries asked by her audiences. Besides, Kayla Itsines, a fitness influencer with 15.2M followers on Instagram, will post photos of low-carb and low-sugar foods and her fitness videos (Noonan, 2018). The high frequency of posting on Instagram makes people pay attention to them as well as their healthy behavior appears on social media. Tricás-Vidal et al. (2022) mentioned that fitness influencers who regularly update their content on dynamic social networking sites such as Instagram and Facebook might better promote physical activity than static websites. Instagram is the most popular social media platform for social media fitness influencers, with about 39 per cent of people doing fitness-related content here (Rachel, 2022). Lexi DeYoung, another social media fitness influencer, greatly understands her audience. She will post physical workout videos on her Instagram page while sharing those questions answering and personal videos through Instagram videos. Audiences who are only interested in her fitness video can easily get them from posts without being loaded with different content (Noonan, 2018). Moreover, followers are allowed to ask questions and tag friends under the comment box, while the influencers can also answer those questions

directly (Noonan, 2018). This action will bring more people new to fitness or like-minded people towards the influencers, and parasocial relationships will be created through interaction.

Besides this, Kayla Itsines has excellent power in motivating and changing her followers' fitness behavior. Due to the development of parasocial relationships, a fitness program of Kayla Itsines called BBG has motivated many of her followers to share their experiences on fitness using #BBG on Instagram (Noonan, 2018). BBG fitness program is a 28 minute workout session three times a week that can be done at home or the gym (De Oliveira, 2019). Noonan (2018) indicates that she was introduced to this program by two of her roommates, and with the cheerful voice surrounding her, she decided to continue to work out even after the free trial ended. By looking at the #BBG, many of Kayla Itsines's followers share theirs before and after photos after following the fitness program. Even in the gym, the people who do not know each other start on the #BBG fitness program conversation after recognising others doing the same workout.

Based on the previous studies' results from Tricás-Vidal et al. (2022), there was a significantly higher percentage of student respondents who responded that they were being encouraged by social media fitness influencers' content. Besides, students (Generation Z) carry a higher percentage who perceive encouragement from fitness influencers. They even spent more time searching for nutrition or exercise on Instagram. This will contribute to this research as it tells that the younger generation could have greater influence by fitness influencers as compared to Millennials, and this is the reason why this research is targeting youth as the target audience. Besides that, fitness influencers especially those active in posting fitness content able to sustain a long-term relationship with their audience by keep following them. Also, the audience simultaneously may influence people around them.

2.5 Attitude Homophile

Followers who find more remarkable similarities with the fitness influencers' points of view tend to build more interaction with the influencers. Other than this, among fitness influencers with different personalities, audiences will follow those with similar personalities (Roy & Mehendale, 2021). The audience also investigates the similarity of physical appearance. According to Roy and Mehendale (2021), physical attractiveness affects the audience's thoughts on an influencer's credibility. Henceforth, it means that social media fitness influencers and their followers could build a relationship if followers can find similarities from influencers. This contributes to this research as it proves that the relationship between fitness influencers and followers will be affected because of their similarities. The reliability will be further investigated by conducting a survey.

2.6 Theoretical Framework

The social cognitive theory, also known as Bandura's theory, was developed in 1986; where it was first started as a social learning theory in 1960 by Stanford psychologist Albert Bandura. Bandura (2001) added by saying that this theory was the most studied theory in the psychology field, in that people are influenced and react to the built social environment, and they also often engage in self-regulation and alternative learning through communication (Beauchamp et al., 2019).

In this research, the motivation retrieved from social media fitness influencers is a critical factor influencing youth fitness behaviour. The motivation variables include expectancy, a person's belief in the likelihood of a particular reinforcement occurring after a particular behavior, and reinforcement value, the degree to which an individual desires a particular outcome relative to other potential outcomes (Schunk & DiBenedetto, 2020).

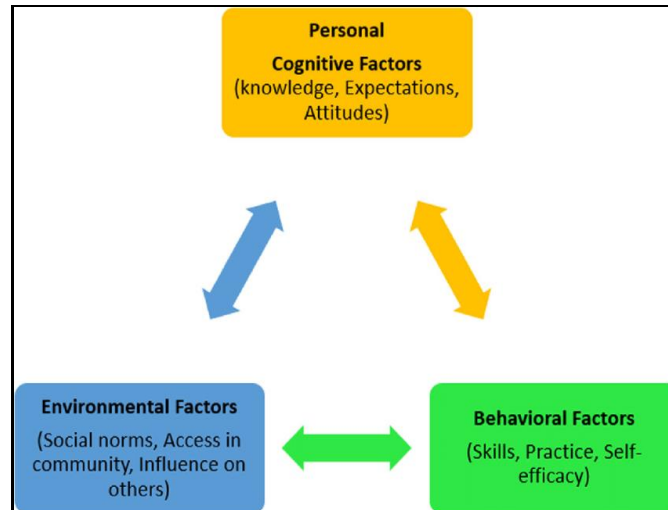


Diagram 1. *Social cognitive theory (Maalem Lahcen, 2020)*

From the perspective of observation learning, the followers will pay attention to the model's behaviour and learn it through observation. Then, the followers memorise the behavior and retain it in their memory. The follower's beliefs about the model were expected to increase their likelihood of reinforcing a specific behavior (Schunk & DiBenedetto, 2020). Lastly, the followers will imitate and be motivated, wanting to perform on the model's behavior. This theory applies to our research because social media fitness influencers influence their followers through trustworthiness, expertise, attractiveness, and behaviour (Personal Cognitive Factors). Hereafter, followers will remember, follow, and imitate the exercises based on their views and learning (Environmental factors). Suppose the social media fitness influencers perform in a favourable manner. In that case, it will boost their followers' motivation and intention to exercise, and thus a higher chance to influence their fitness behaviour (Behavior factors). Schunk and DiBenedetto (2020) also noted that the influences on people's fitness behaviour heavily depend on the positive consequences perceived by social media fitness influencers. Further, the self-efficacy beliefs of influencers help this study determine whether their beliefs about their abilities can influence their followers' fitness behaviors.

CHAPTER III

METHODOLOGY

3.0 Introduction

This chapter comprises of applied research method, research data collection, instrument, sample size, reliability and validity, and pilot test. The questionnaire was designed to understand respondents' thoughts that answered the research question.

The related research objectives are modified into a survey questionnaire, and the entire survey questionnaire consists of six sections. Firstly, an acknowledgement was asked to ensure every participant consented and agreed to participate in this research. Section 1 consists of demographic information such as age, gender, job status, and the highest educational level of respondents. Moreover, general information related to this research, like their understanding of social media fitness influencers, the kind of content watched, platforms used in watching fitness content, and people that influenced them to follow fitness influencers, was asked in section 2. Next, followed by questions related to research objectives and research questions will be asked under sections 3 to section 5 to understand the effect of trustworthiness, expertise, and attractiveness developed by social media fitness influencers towards youth fitness behavior in section 6.

3.1 Research Method

A quantitative data-collecting method is used in this study, entitled "The parasocial relationships between social media fitness influencer and youth fitness behavior in Malaysia", to gather data from the target audience. On account of literature reviews may not provide enough information on the study; therefore, further information must be acquired from participants through exploration (Ariffin et al., 2018). Quantitative research enables researchers to uncover answers to designate and significant questions by gathering, analysing,

and interpreting data for a large audience (Taherdoost, 2019). The data collected is usually numerical. It enables researchers to understand the participants' acceptance and how much the variable has affected them towards the questionnaire statement (Lim, 2021). Besides, this method works best as it investigates human phenomena and investigates unknown interpretations and meanings that are needed for further research (Ariffin et al., 2018).

Bhandari (2022) indicates that a quantitative research method is divided into different forms, such as descriptive research, used to seek an overall outline of studies variables; correlational research, which studies the connection between study variables; experimental research, where the researcher looks at whether a cause-and-effect relationship systematically found between variables. A survey can be conducted with the target audience by distributing questionnaires. McLeod (2018) explained that a questionnaire is a research instrument comprising a series of questions to assemble information from target respondents. It can be known as a form of a written interview in which the researchers may or may not meet the respondents physically.

Most of the time, quantitative research is used in various social sciences, including psychology, sociology, and physics, to reflect observations. Quantitative research involves several data collection methods, for instance, face-to-face, telephone, postal, electronic surveys and so forth. Furthermore, the electronic and postal types of the survey will be used throughout this research. A questionnaire is effective when the respondents are closed related or know the topic asked. Based on this research, the topic discussed is related to youth, generation Z (Aged between 15-24), as they are the largest group of audiences connecting with influencers (Dopson, 2022). Statistical Package for Social Sciences (SPSS), a statistical software will be used as the primary analysis software to analyse and interpret descriptive analysis, reliability and validity analysis, regression analysis and hypothesis test. It is a fully functioning spreadsheet.

3.2 Hypotheses

The hypotheses in this research needs to be tested.

The hypotheses are as follows:

Hypothesis 0: Trustworthiness/ Expertise/ Attractiveness developed by social media fitness influencers has no relationship towards youth fitness behavior.

Hypothesis 1: Trustworthiness developed by social media fitness influencers has a positive relationship towards youth fitness behavior.

Hypothesis 2: Expertise developed by social media fitness influencers has a positive relationship towards youth fitness behavior.

Hypothesis 3: Attractiveness developed by social media fitness influencers has a positive relationship towards youth fitness behavior.

3.3 Variables

Three independent variables and a dependent variable need to be clarified through this survey.

The independent variables are as follows:

1. Trustworthiness (parasocial relationship) developed by social media fitness influencers on youth.
2. Expertise (parasocial relationship) developed by social media fitness influencers on youth.
3. Attractiveness (parasocial relationship) developed by social media fitness influencers on youth.

The independent variable is as follow:

1. The effect of social media fitness influencers towards youth fitness behavior.

3.4 Sample Size

In this research, a minimum of 200 respondents are needed to participate in the survey. The excessive and ineligible respondents will be filtered out to ensure the preciseness of the survey. At the end of the survey, 202 responses were collected by the researchers.

3.5 Data Collection

The data will be collected after ethical clearance through the questionnaire. In this case, structured questionnaire strategies were used to collect data on observing the parasocial relationships developed by social media fitness influencers towards youth and what affects them to change their fitness behavior. It will take about one week to reach the target number of respondents. The data of questionnaires will all appear in a single language, English; no translation will be written in the questionnaire. It has been separated into six sections which are demographic information (Section 1); general information (Section 2); the parasocial relationships of trustworthiness, expertise, and attractiveness (Sections 3 to 5); the effect of social media fitness influencers has on youth fitness behaviour (Section 6). All the questions asked can help the researchers to clarify the research objectives of this research. Participants will remain anonymous and give informed consent to participate in the survey. They are required to be between the ages of 15 to 24, and they should answer all the questions stated.

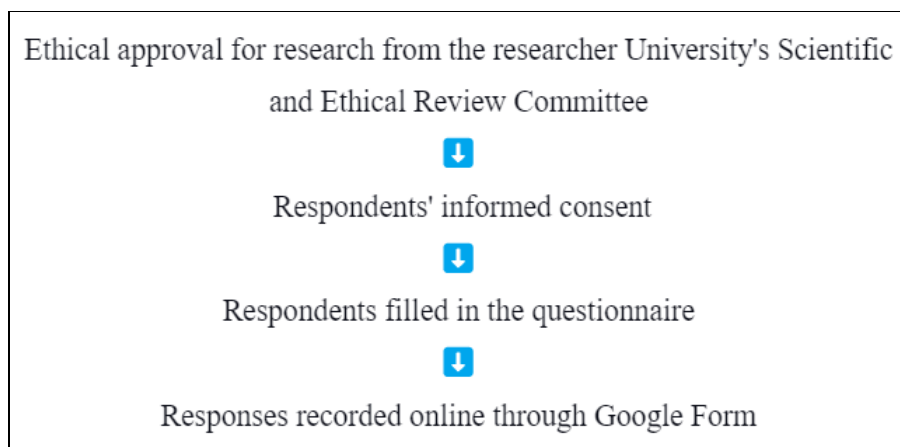


Diagram 2. *Data collection procedure*

3.6 Research Instrument- Online Survey

Online survey data collecting methods can be applied as the instrument to collect data from respondents. For this research, due to its effectiveness, Google Forms will be selected as the tool to collect respondents' evidence. The scaling method of this research will only include close-ended questions, which means that participants can only choose one or more answers given earlier in the form without typing any other answers that are not in the survey (Taherdoost, 2019). A 5-point Likert scale is mostly used in this research. The Likert scale is easy to read and answer, likely producing a higher reliable scale (Taherdoost, 2019). A 5-point Likert scale is a question that is designed from a scale of 1 to 5, from strongly disagree to strongly agree. Respondents are not allowed to describe their ideas in the statement further.

Decision-makers and researchers frequently use the online survey data-collecting method as it is quick and efficient. Data can be collected, analysed and compiled within a short time frame even though it requires a large sample size and from various geographical points (Williams, 2021). Participants can feel more comfortable when answering questions as no researcher presence is around. Besides, it is cost-efficient, especially for low-budget researchers (Dowthwaite et al., 2021). The researchers can place them on a website, email or send them through messaging instead of travelling around to distribute the questionnaires. The other advantage of using quantitative research is that the findings can be generalised. It provides an overview of information rather than specific target groups. Gaille (2019) said that the results emerging through quantitative research could be extended beyond participant groups to the overall demographics this research focuses on, and fewer errors will appear. However, it also has its downside, where the respondent may lie while answering.

3.7 Questionnaire Design

This questionnaire was designed based on various research studies and researchers. Question 11 questions respondents on who makes you start following fitness influencers was modified from Durau et al. (2022) study of “Motivate me to exercise with you: The effects of social media fitness influencers on users’ intentions to engage in physical activity and the role of user gender.” (Refer to appendix A, section 2) Same as question 11, question 12, 13 (Refer to appendix A, section 3), 18 to 20 (Refer to appendix A, section 4), and 26 to 28 (Refer to appendix A, section 6) was modified from the same research.

Furthermore, question 14 to 16 (Refer to appendix A, section 3, and 21 to 23 (Refer to appendix A, section 4, 5) were modified from Lim (2021) study on “The Influence of Ethnicity on Social Media Influencer towards Customer Purchase Intention”. It is to understand the parasocial relationships between social media fitness influencers and Malaysian youth.

Additionally, question 17 (Refer to appendix A, section 4), 25 (Refer to appendix A, section 5), and 29 to 31 (Refer to appendix A, section 6) was modified from Sokolova and Perez (2021) study on “You follow fitness influencers on YouTube. But do you actually exercise? How parasocial relationships, and watching fitness influencers, relate to intentions to exercise.” Lastly, one question which is question 24 (Refer to appendix A, section 5) was modified from Roy and Mehendale (2021) study on “Effectiveness of Healthcare and Fitness Influencers during COVID Times” to further investigate whether the similarity found between respondents and the influencer will attract respondents’ attention to them.

3.8 Data Analysis Method

The data collected and generated will be analysed via descriptive analysis. Kaur et al. (2018) stated that descriptive analysis was used to summarize data to characterise the relationship between populations. Also, it is the analysis designed for quantitative research

that allows information to have a statistical measurement in numerical form (Kaur et al., 2018). In this study, descriptive analysis is applied to explain and illustrate data obtained to build a better understanding of data in the form of tables and figures.

3.9 Reliability and Validity

Reliability and validity are essential for evaluating any proper research measurement tool (Mohajan, 2017). Kamper (2019) commented that research must have sufficient reliability and validity to fit the goal. Reliability signifies that a measurement will always get the same result even though it has been tested several times, which means a measurement with zero error. Then, validity is about the preciseness of a measure; it is determined by appropriately interpreted data from measuring instruments as a result of analysis (Surucu & Maslakci, 2020). Quintão et al. (2020) indicate that both reliability and validity help clarify that the research findings are credible, transferable and dependable. Although reliability and validity are closely related, they point to different measurement equipment features. A measuring tool can be accurate without being valid, yet it is also likely to be accurate if it is valid (Surucu & Maslakci, 2020). Reliability cannot be tested alone as it may not accurately reflect the expected behaviour. Thus, the reliability and validity of measuring instruments researchers intend to use must be tested.

According to Mohajan (2017), ensuring the reliability and validity of the study helps to guarantee the quality and integrity of the findings. The questionnaire for this research is accurate as it has been obtained from previous research. Cronbach's alpha will assess the reliability of the research questionnaire items. Consistency of a 5-point Likert scale from 1-Strongly disagree, 2-Disagree, 3-Somewhat agree, 4-Agree, to 5-Strongly agree, and several options such as multiple choice in the questionnaire should be checked. An alpha reading of ≥ 0.6 is reliably acceptable for Social Sciences (Hajjar, 2018; Raharjanti et al., 2022). Furthermore, the researcher will make use of Fornell-Larcker Criterion to analyze the validity

of research questionnaire items. AVE square root should be greater than other latent variables to ensure its validity in this study.

3.10 Pilot Test

A pilot test will be carried out before the questionnaire is officially sent to respondents for data collection. 10% (n=20) of the total respondents will be invited to participate in the online survey pilot test. A pilot test is essential to maximize the quality of insight that researcher obtains. With former input from the target audience, researchers will be able to know their thoughts on the topic precisely (Cleave, 2021). Hence, with the pilot test result on hand, a researcher can amend and improve the questionnaire.

The pilot test was taken from 8th February to 10th February 2023. After doing the pilot test for the survey questionnaire, the researchers noted that some questions needed to be revised in order to improve sentence fluency. The question that needs and has been amended is shown in the table below:

Table 1

Pilot test

No.	Section	Question	Before pilot test	After pilot test
1.	3	8	Did you watch any fitness content (live, video, post etc.) performed by influencers before?	Have you watched any fitness content (live, video, post, etc.) performed by influencers?
2.	6	25	The more frequently an influencer posts online will	The more frequent influencer posts online will attract you to

			attract you to pay more attention to them.	pay more attention to them.
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CHAPTER IV
RESEARCH FINDINGS

4.0 Introduction

This chapter emphasizes the result of the survey questionnaire and the demonstration of data analysis. The results from the questionnaire were collected from 202 respondents through Google Forms and analyzed using Statistical Package for Social Sciences (SPSS). Multiple analysis, such as descriptive analysis, reliability and validity analysis, Pearson correlation coefficient analysis, regression analysis and hypothesis, was tested in this chapter. All results were generated in the form of tables and figures.

4.1 Descriptive Statistics

4.1.1 Demographic information of respondents

Table 2

Demographic profile of respondents

Category	Item	Frequency	Percentage (%)
Age	• 15	3	1.5
	• 16	3	1.5
	• 17	7	3.5
	• 18	7	3.5
	• 19	9	4.5
	• 20	13	6.4
	• 21	32	15.8
	• 22	71	35.1

	<ul style="list-style-type: none"> • 23 • 24 	24	11.9
		33	16.3
Gender	<ul style="list-style-type: none"> • Female • Male 	145	71.8
		57	28.2
Job Status	<ul style="list-style-type: none"> • Student • Employed • Unemployed 	158	78.2
		38	18.8
		6	3.0
Highest Education Level	<ul style="list-style-type: none"> • PT3 • SPM • STPM • Foundation/ A-level • Undergraduate • Post-graduate 	8	4
		18	8.9
		3	1.5
		31	15.3
		129	63.9
		13	6.4

Based on the summary of Table 2, the target audience for this study is youth between the ages of 15 to 24. The largest group of respondents is from the age of 22 (n=71, 35.1%). Next, it is followed by respondents at the age of 24 (n=33, 16.3%); the smallest respondents' group are from the ages of 15 and 16, both carrying the same value (n=3, 1.5%).

In this research, there are 202 respondents grouped by gender. 71.8% of female (n=145) respondents participated in this survey, while the remaining 28.8% were male (n=57). Hence, this shows that the distribution of gender has not been equally distributed as there are more female respondents than males.

Next, among all job statuses, students contributed most in this survey (n=158, 78.2%), secondly followed by those participants who are employed (n=38, 18.8%). Only 6 out of 202 respondents are unemployed (n=6, 3.0%).

There are 129 respondents under undergraduate education level (63.9%), the second largest group of respondents own at least a foundation or A-level education (n=31, 15.3%), while only 1.5% (n=3) of respondents own qualifications of education of STPM.

4.1.2 General information.

Table 3

General information

General Information	Item	Frequency	Percentage (%)
Do you recognize any of the social media fitness influencers?	• YES	160	79.2
	• NO	42	20.8
Do you follow any of the social media fitness influencers?	• YES	132	65.3
	• NO	70	34.7
Have you watched any fitness content (live, video, post, etc.) performed by influencers?	• YES	175	86.6
	• NO	27	13.4
What kind of physical			

<p>exercise(s) content do you usually watch?</p>	<ul style="list-style-type: none"> • Aerobic • Zumba • Yoga • Gym • Cardio workout • Tabata • Other <ul style="list-style-type: none"> ○ Skipping rope ○ Dance workout ○ Dance ○ Resistance training ○ Calisthenics ○ Absolute not 	<p>64 47 73 92 89 58 1 1 1 1 1 1</p>	<p>31.7 23.3 36.1 45.5 44.1 28.7 0.5 0.5 0.5 0.5 0.5 0.5</p>
<p>Which platform(s) do you use in watching fitness content?</p>	<ul style="list-style-type: none"> • Facebook • Instagram • YouTube • Douyin • TikTok • Twitter • Weibo • RED • Bilibili • Other 	<p>63 104 157 70 31 3 5 54 17 1</p>	<p>31.2 51.5 77.7 34.7 15.3 1.5 2.5 26.7 8.4 0.5</p>

	○ Xiao Hong Shu		
Who make(s) you start following fitness influencers?	<ul style="list-style-type: none"> • Family • Friends • Role Models • None 	<p>26</p> <p>86</p> <p>78</p> <p>47</p>	<p>12.9</p> <p>42.6</p> <p>38.6</p> <p>23.3</p>

Table 3 summarizes that the majority of respondents recognize any of the social media fitness influencers. 79.2% (n=160) of respondents responded that they know, and 20.8% (n=42) responded that they did not know any social media fitness influencers. 65.3% (n=132) of respondents from both genders said they follow social media fitness influencers. In contrast, a minority do not follow any social media fitness influencers (n=70, 34.7%). This shows that most of the youth are aware of the existence of social media fitness influencers. Moreover, 175 (86.6%) of the respondents indicated that they have watched fitness content performed by influencers before, while the remaining respondents did not do so (n=, 13.4%).

Additionally, the respondents are allowed to choose one or multiple answers to the question on “What kind of physical exercise(s) content do you usually watch?” Based on the illustration of Table 3, the most watched content belongs to the Gym, containing 45.5%, which means that 92 respondents selected this option. Next, the cardio workout was the second most frequently watched physical exercise content and thirdly followed by yoga, carrying 44.1% (n=89) and 36.1% (n=73), respectively. According to Lemonlight (2022), yoga videos were familiar before 2020 since people started to search for at-home workouts. It has even become more popular as expected, an increase of more than 165% from 2019 to

2020 due to the outbreak of the Covid-19 pandemic, where everyone is restricted to have outdoor activities; meanwhile, it helps the audience to adjust their physical and emotional needs (Lemonlight, 2022). Other than that, skipping rope, resistance training, calisthenics tied for the fewest, with only one person selecting each option. Based on the survey result, the writing of the “dance workout” option was the same as “dance”, in which two respondents had selected that option. Lastly, a respondent mentioned that he or she is not watching any physical exercise content.

Nevertheless, the most used platform for watching fitness content belongs to YouTube, as there were 157 out of 202 respondents, with 77.7% having chosen this option. 79% of YouTube sports viewers agreed that they could find sports and fitness content on YouTube that they cannot get from other platforms (“YouTube Sports Content Statistics,” 2016). The second most popular platform is Instagram, 51.5% (n=104) and thirdly followed by Facebook, having 63 respondents choosing this option. Only three respondents said that they watch fitness content through Twitter. This is because Twitter was mostly used for business promotion and sharing of breaking news. Bradshaw (2020) found that Twitter is not user-friendly for posting fitness content as it was only limited to 4 images or videos with a maximum of 140 seconds and 280 characters in a post.

Most of the respondents were influenced by their friends when following fitness influencers. The percentage of “friends” making them follow fitness influencers was 42.6%, which is equivalent to 86 respondents. However, only 12.9% (n=26) of respondents said that they were affected by their family.

4.1.3 Data coding.

Table 4

Code of measurement

Item	Values
Likert scale	1 - Strongly disagree 2 - Disagree 3 - Somehow agree 4 - Agree 5 - Strongly agree

Likert scale was used in questions related to research objectives 1 and 2 (Question 12 to question 31) to understand respondents' opinion through selecting different values in a particular question.

4.1.4 Means and standard deviation of independent and dependent variables.

Table 5

Mean and standard deviation of the parasocial relationships developed by social media fitness influencers on youth (n=202)

Question (Q)	Items Variable	Mean	Standard Deviation
Section 3: Trustworthiness			
Q12	Influencers' credibility will affect the persuasiveness of fitness information.	2.98	.712
Q13	Influencers' sincerity will affect the persuasiveness of fitness information.	3.00	.726
Q14	Influencers' honesty will affect the persuasiveness of fitness information.	4.14	.743
Q15	Messages delivered by influencers will affect the persuasiveness of fitness information.	4.06	.773
Q16	The number of followers owned by influencers will affect the persuasiveness of fitness information.	3.63	.975
Section 4: Expertise			
Q17	Influencers' knowledge will build your trust towards them.	4.09	.770
Q18	Influencers' skills will build your trust towards them.	3.22	.728

Q19	Influencers' experience will build your trust towards them.	4.10	.860
Q20	Influencers' qualifications will build your trust towards them.	3.11	.797
Q21	Influencers' familiarity will build your trust towards them.	3.87	.918
Section 5: Attractiveness			
Q22	The facial appearance of an influencer will attract you to pay more attention to them.	3.54	1.013
Q23	The bodily appearance of an influencer will attract you to pay more attention to them.	3.04	.816
Q24	The similarity found between you and the influencer will attract your attention to them.	3.84	.992
Q25	The more frequent influencer posts online will attract you to pay more attention to them.	3.69	.906

As refer to Table 5, in which the variable discussing the parasocial relationship of trustworthiness, Q14 has the highest mean ($\bar{x}=4.14$), and Q12 has the lowest mean ($\bar{x}=2.98$). Furthermore, Q16 has the highest standard deviation ($\sigma=0.975$), while Q12 has the lowest standard variation ($\sigma=0.712$).

Next, based on the illustration under Section 4, the parasocial relationship of expertise, Q19 owns the highest mean ($\bar{x}=4.10$), followed by Q17 ($\bar{x}=4.09$), and lastly, Q20 has the

lowest mean ($\bar{x}=3.11$). Moreover, Q21 has the highest standard deviation of ($\sigma=0.918$), and Q18 has the lowest value of standard deviation, which is ($\sigma=0.728$).

Additionally, Section 5 shows the questions related to parasocial relationship of attractiveness. Q24 has the highest mean ($\bar{x}=3.84$), while Q23 has the lowest mean ($\bar{x}=3.04$) and lowest standard deviation ($\sigma=0.816$). Meanwhile, the highest standard deviation in Section 5 is Q22 ($\sigma=1.013$), and secondly, followed by Q24 ($\sigma=0.992$).

Table 6

Mean and standard deviation of the effect of social media fitness influencers on youth fitness behavior (n=202)

Question (Q)	Items Variable	Mean	Standard Deviation
Section 6			
Q26	It will motivate my future fitness behavior.	2.91	.685
Q27	It allows me to have a greater intention of exercising.	3.89	.780
Q28	It will elicit my positive effects on intentions to follow the influencers' advice.	2.91	.737
Q29	It will help sustain my exercise behavior.	2.82	.799
Q30	It will provide the social support needed to continue exercising.	3.92	.809

Q31	It will motivate me to have a greater willingness to adopt healthier lifestyles.	3.04	.768
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Based on Table 6, the mean and standard deviation of the effect of social media fitness influencers and youth fitness behavior, Q30 has the highest means and standard deviation ($\bar{x}=3.92$, $\sigma=0.809$). Then, Q27 has the second highest mean ($\bar{x}=3.89$), and Q29 carries the lowest mean ($\bar{x}=2.82$). Q26 and Q28 share the same mean ($\bar{x}=2.91$). Q26 has the lowest standard deviation ($\sigma=0.685$).

4.2 Reliability Analysis

4.2.1 Cronbach's alpha.

Table 7

Reliability statistics tested with Cronbach's Alpha

Variables	Cronbach's Alpha	N of Items
Trustworthiness	.788	5
Expertise	.786	5
Attractiveness	.690	4
Effect	.870	6

The reliability of the research questionnaire items was assessed by Cronbach's α . It is a statistic cited by researchers to indicate the constructed tests and scales for research aligned with the objectives (Taber, 2018). The questionnaire consists of a total of 30 items. Among all questions, 20 are with a 5-point Likert scale: 1 - Strongly Disagree to 5 - Strongly Agree. Table 7 shows the result of the presented analysis. The reliability analysis results show that the alpha value for trustworthiness, expertise, attractiveness, and effect is 0.788, 0.786, 0.69, and 0.87 respectively. Cronbach's alpha values between 0.6 and 0.8 are acceptable internal consistency and are reliable for social science (Hajjar, 2018; Raharjanti et al., 2022). Hence, it also proves that the items adopted in the survey questionnaire were reliable and consistent.

4.3 Discriminant Validity Analysis

4.3.1 Fornell-Larcker Criterion

Table 8

Fornell-Larcker Criterion

	Trustworthiness	Expertise	Attractiveness	Effect
Trustworthiness	0.846	.606**	.436**	.455**
Expertise	.606**	0.837	.455**	.484**
Attractiveness	.436**	.455**	0.837	.483**
Effect	.455**	.484**	.483**	0.797

In addition, the validity of the research questionnaire items was assessed by Fornell-Larcker Criterion. It was applied to examine the square root of each construct's AVE degree. As a result, the AVE square root is superior than other latent variables. Fornell and Larcker (1981) said that AVE and the square root of AVE of each latent variable (LV) should be greater than other LV in the test. Hence, the discriminant validity is valid in this scenario.

4.4 Pearson Correlation Coefficient Analysis

Pearson's correlation coefficient was used to analyze linear relationship between the variables in this study. The feasible value of the correlation coefficient is between -1 to +1. -1 indicates a perfectly linear negative correlation; 0 indicates no linear relationship between two variables; +1 indicates a perfect linear positive correlation (LaMorte, 2021). The effect size was interpreted by Cohen's (1988) conventions. Further, the .10 correlation coefficient means a weak and small association; the correlation coefficient of .30 means a moderate

correlation; while the correlation coefficient of .50 and above means a strong or large correlation (Cohen, 2013).

		Correlations			
		Trustworthiness	Expertise	Attractiveness	Effect
Trustworthiness	Pearson Correlation	1	.606**	.436**	.455**
	Sig. (2-tailed)		<.001	<.001	<.001
	N	202	202	202	202
Expertise	Pearson Correlation	.606**	1	.455**	.484**
	Sig. (2-tailed)	<.001		<.001	<.001
	N	202	202	202	202
Attractiveness	Pearson Correlation	.436**	.455**	1	.483**
	Sig. (2-tailed)	<.001	<.001		<.001
	N	202	202	202	202
Effect	Pearson Correlation	.455**	.484**	.483**	1
	Sig. (2-tailed)	<.001	<.001	<.001	
	N	202	202	202	202

** . Correlation is significant at the 0.01 level (2-tailed).

Figure 2. Pearson correlation for the effect of parasocial relationship developed by social media fitness influencers towards youth fitness behavior

Figure 2 tested the relationship between trustworthiness developed by social media fitness influencers and its effect towards youth fitness behaviour. It shows that two variables are significantly correlated ($r=.455$, $n=202$, $p<.001$). Cohen (2013) mentioned that it was moderate and positively correlated with each other. Based on the R-value, the strength of the relationship coming with a high level of trustworthiness will lead to a moderate effect towards youth fitness behavior.

Nevertheless, the relationship between expertise developed by social media fitness influencers and the effect of social media fitness influencers towards youth fitness behavior shows a moderate and positive correlation ($r=.484$, $n=202$, $p<.001$) between the two variables. By examining the R-value, the strength of the relationship coming with a high level of expertise will lead to a moderate effect towards youth fitness behavior.

Furthermore, the relationship between trustworthiness developed by social media fitness influencers and the effect of social media fitness influencers towards youth fitness behavior was also tested using Pearson's correlation coefficient. Cohen (2013) mentioned a moderate and positive correlation was shown between the two variables ($r=.483$, $n=202$, $p<.001$). By examining the r -value, the strength of the relationship brought by a high attractiveness will lead to a moderate effect towards youth fitness behavior.

As a result, based on Pearson's correlation coefficient, the parasocial relationships (trustworthiness, expertise, attractiveness) has been tested together with the effect of social media fitness influencers towards youth fitness behavior. All significant values (p -value) shown in Figure 2 are statistically significant ($<.001$) and the result shows that there was a moderate and positive correlation between each independent and dependent variable. Also, expertise of social media fitness influencers owns the strongest relationship with the effect on youth fitness behavior. On the other hand, trustworthiness has the weakest relationship with the effect on youth fitness behavior as compared to attractiveness and expertise.

4.5 Regression Analysis

Regression analysis is a statistical instrument that was used to investigate the relationship between two variables. Sykes (1993) mentioned that it enables the researchers to define the cause and effect of one and another variable, which are the independent and dependent variables. The hypothesis which is trustworthiness, expertise, and attractiveness developed by social media fitness influencers, has been tested using regression tests to understand whether they have an effect on youth fitness behavior. Also, three independent variables and a dependent variable have been applied to the regression test to investigate the relationship between each variable.

4.5.1 Data screening.

	Valid		Cases Missing		Total	
	N	Percent	N	Percent	N	Percent
	Trustworthiness	202	100.0%	0	0.0%	202
Expertise	202	100.0%	0	0.0%	202	100.0%
Attractiveness	202	100.0%	0	0.0%	202	100.0%
Effect	202	100.0%	0	0.0%	202	100.0%

Figure 3. Case processing summary

Based on the Figure 3, it shows between 202 number of responses, 100% of data is valid.

4.5.2 Date screening for outliers.

Outliers means observations that are unusually far from other values in the dataset. SPSS assume that an outlier figure with no circle or asterisk outside the box plot means that no outlier was presented. On the other side, data is considered as an outlier when it lies outside the range of 3rd quartile + 1.5*interquartile range, and the 1st quartile – 1.5*interquartile range (Zach, 2020).

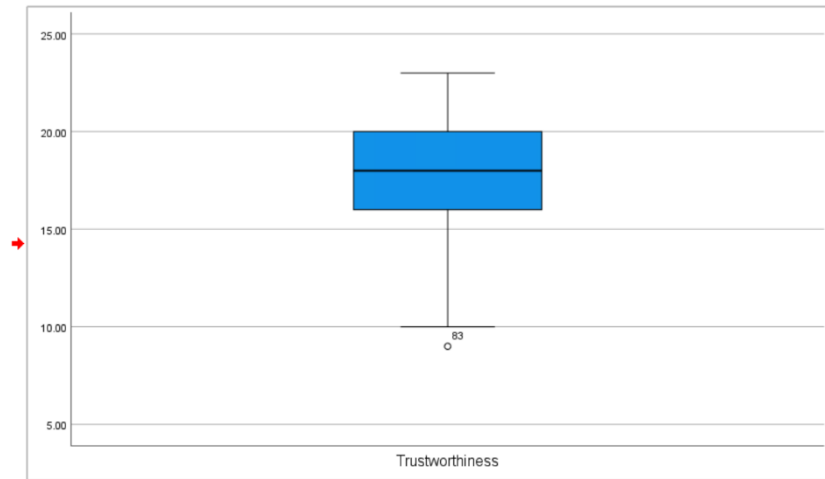


Figure 4. *Outlier of the parasocial relationship (Trustworthiness) developed by social media fitness influencers on youth (n=202)*

Based on Figure 4, Case number 83 is presented outside the boxplots.

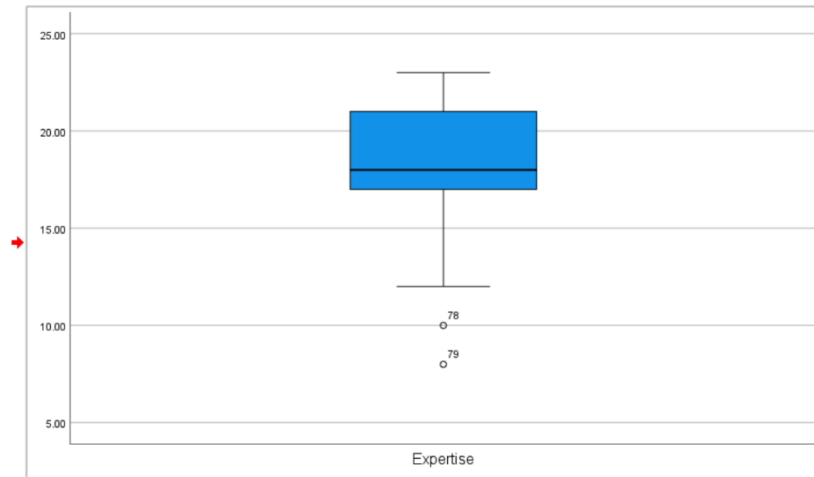


Figure 5. *Outlier of the parasocial relationship (Expertise) developed by social media fitness influencers on youth (n=202)*

Based on Figure 5, case number 78 and 79 are presented outside the boxplots.

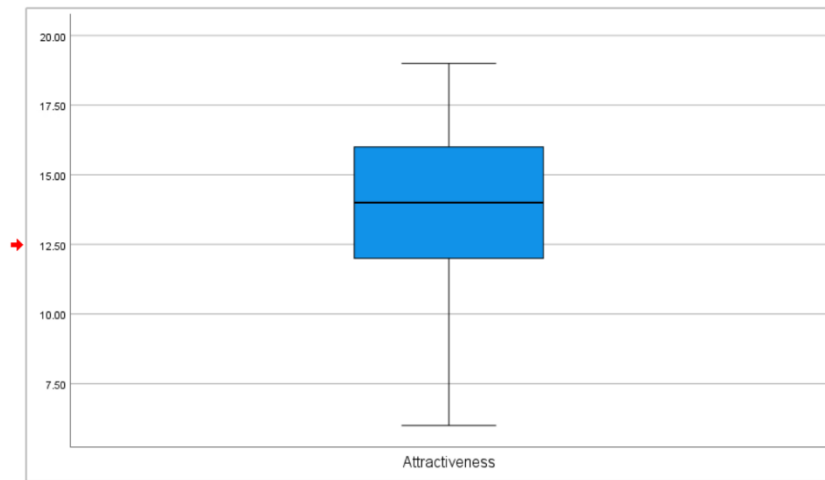


Figure 6. *Outlier of the parasocial relationship (Attractiveness) developed by social media fitness influencers on youth (n=202)*

Based on Figure 6, there is no outlier presented.

4.5.3 Mahalanobis distance.

Mahalanobis distance has been tested in SPSS to understand the distance between the two points in multivariate space. It has been applied to look for outliers in statistical analyses involving multiple variables (Zach, 2020). Based on the data shown in SPSS, one out of 202 is an outlier due to it having a p-value of less than 0.001.

4.5.4 Normal P-P plot standardized residual.

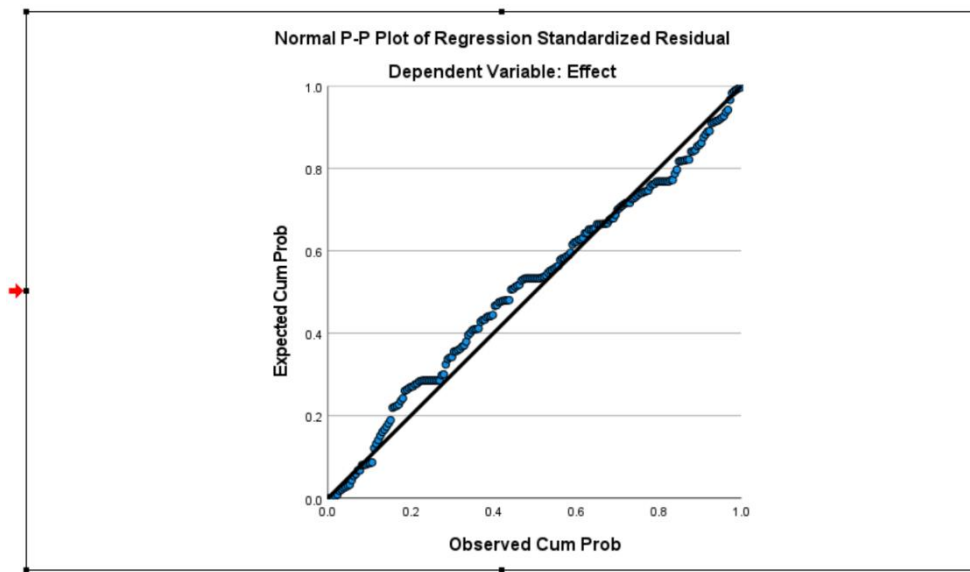
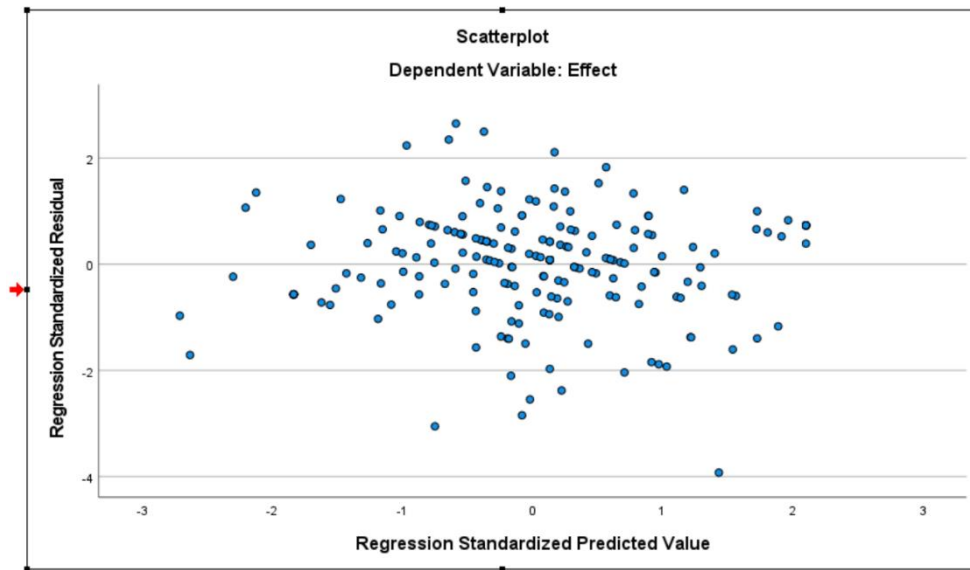


Figure 7. Normal P-P plot standardized residual

Based on Figure 7, the bunches of points are approximately fitted to the diagonal line. Hence, this can conclude that the data is approximately being distributed normally. Besides, a positive and strong relationship was displayed between variables of parasocial relationships developed by social media fitness influencers towards youth fitness behavior.

4.5.5 Scatterplot.

Figure 8. *Scatterplot*

Based on the Scatterplot figure of the residuals shown above, it seems that the data is homoscedastic as the points are evenly distributed at the top and bottom of X axis, and left and right of Y axis (“Testing Assumptions of Linear Regression in SPSS,” n.d.).

4.5.6 Model summary.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.584 ^a	.341	.331	2.92058

a. Predictors: (Constant), Attractiveness, Trustworthiness, Expertise
b. Dependent Variable: Effect

Figure 9. Model summary

Figure 9 shows the correlation between three independent variables and a dependent variable of this research. The r-value signifies 0.584, which shows that there is a moderate level of correlation since the value of r is greater than 0.5 ($0.5 < r < 0.7$). Apart from this, r-square was analyzed to indicate the variance percentage of the dependent variable that is jointly explained by the independent variables (Frost, n.d.). The r square value from the model summary is 0.341, which means that three independent variables will have a 34.1% influence on the dependent variable. Hence, we could conclude that independent variables in this study have a significant effect on influencing youth fitness behavior.

4.5.7 ANOVA.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	873.528	3	291.176	34.136	<.001 ^b
	Residual	1688.893	198	8.530		
	Total	2562.421	201			

a. Dependent Variable: Effect
b. Predictors: (Constant), Attractiveness, Trustworthiness, Expertise

Figure 10. ANOVA

An ANOVA test was conducted to weight the importance of interactions between variables; analyze and variance (Tamplin, 2023). They figure if the research results are significant which either deny the null hypothesis (H0) or accept the alternate hypothesis (H1). By referring to the results displayed in ANOVA, the linear regression model of this study is statistically significant as the result of the p-value is <.001, which is lesser than 0.05. This shows that there is a significant relationship on the parasocial relationships and the effect towards youth fitness behavior. Plus, it also means that there is at least one of the independent variables that has effects on youth fitness behavior.

4.5.8 Coefficients.

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	4.751	1.489		3.191	.002		
	Trustworthiness	.223	.091	.181	2.437	.016	.600	1.666
	Expertise	.285	.090	.240	3.189	.002	.588	1.701
	Attractiveness	.391	.088	.295	4.427	<.001	.752	1.329

a. Dependent Variable: Effect

Figure 11. *Coefficients*

A multiple regression analysis was conducted to understand whether trustworthiness, expertise, and attractiveness were significant predictors toward the effect of youth fitness behavior. The variance inflation factor (VIF) was used to discover multicollinearity and correlation strength for correlations between predictor variables in regressions (Zach, 2020). The values are 1.666, 1.701, and 1.329, which all of them are between 1 and 5. Hence, this shows moderate correlation between a given and other predictor variables in the model (Zach, 2020). Moreover, it indicates that all the assumptions are applicable.

Based on Figure 11, the coefficients between independent and dependent variables are statistically significant. The data have reached the criteria of running multiple regression as the p-value of all variables were lesser than 0.05. The lowest p-value shown among all variables is attractiveness, which is <.001. This represents that attractiveness of social media fitness influencers has the greatest statistically significant among other values towards the effect on youth fitness behavior. Next, the significant value of expertise is 0.002, which means that it is one of the significant predictors in affecting youth fitness behavior. And lastly, trustworthiness is also shown as statistically significant as its value is 0.016, which is lesser than 0.05.

Additionally, trustworthiness and expertise have standardized coefficient values (β -value) of 0.181 and 0.240 which means that both of the variables has significantly predicted the effect towards youth fitness behavior. Attractiveness has the highest standardized coefficient value (β -value) of 0.295. This signifies that attractiveness is the most important variable in affecting youth fitness behavior among all independent variables.

4.6 Hypothesis Testing

H0: Trustworthiness developed by social media fitness influencers has no relationship towards youth fitness behavior.

H1: Trustworthiness developed by social media fitness influencers has a positive relationship towards youth fitness behavior.

If $p < 0.05$, reject H0. Based on Figure 2, the r-value that trustworthiness developed by social media fitness influencers towards youth fitness behavior is shown as 0.455. It indicates that there is a moderate and positive correlation between each other. Thus, H1 is accepted, but H0 is rejected.

H0: Expertise developed by social media fitness influencers has no relationship towards youth fitness behavior.

H2: Expertise developed by social media fitness influencers has a positive relationship towards youth fitness behavior.

If $p < 0.05$, reject H0. Based on Figure 2, the r-value that expertise developed by social media fitness influencers towards youth fitness behavior is displayed as 0.484. This represents a moderate and positive correlation between the two variables. Hence, H2 is accepted, but H0 is rejected.

H0: Attractiveness developed by social media fitness influencers has no relationship towards youth fitness behavior.

H3: Attractiveness developed by social media fitness influencers has a positive relationship towards youth fitness behavior.

If $p < 0.05$, reject H0. Based on Figure 2, the r-value that attractiveness developed by social media fitness influencers towards youth fitness behavior is demonstrated as 0.483. A moderate and positive correlation was shown between the attractiveness developed by social media fitness influencers and the effect towards youth fitness behavior. Therefore, H3 is accepted, but H0 is rejected.

CHAPTER V

DISCUSSION AND CONCLUSION

5.0 Introduction

Chapter 5 was the last chapter of this study. It reviews the discussion and conclusion according to the analysis done in Chapter 4. It includes descriptive and inferential analysis presented through tables and figures. Furthermore, the researchers' goal is to ensure a strong relationship between written research objectives, which are to understand the parasocial relationships developed by social media fitness influencers towards Malaysian youth fitness behaviour. This chapter also wants to prove that applied theory can assist researchers in relating to its study. Nevertheless, the limitations of this study will be discussed along with providing recommendations, and lastly, the conclusion of the entire study will be discussed.

*5.1 Summary**5.1.1 Summary of descriptive analysis.*

Among 202 youth respondents, there are primarily from the age of 22 (35.1%). Most of the respondents are female (71.8%). Then, most of them are still students (78.2%) owning undergraduate education levels (63.9%). 160 of the respondents said that they recognised social media fitness influencers, and 132 of them do follow social media fitness influencers. Besides, 175 respondents have watched fitness content such as live and videos performed by influencers. The top-picked physical exercise content belongs to the gym (45.5%), followed by cardio workout (44.1%), and only one of them has not watched physical exercise content before. Most respondents, containing 157 of them, said they watch fitness videos through YouTube. Friends (42.6%) were the top choices regarding the individual affecting respondents to start following fitness influencers. The highest means and standard deviation

of Section 3 to Section 6 are Q14 and Q16 ($\bar{x}=4.14$, $\sigma=0.975$); Q19 and Q21 ($\bar{x}=4.10$, $\sigma=0.918$); Q24 and Q22 ($\bar{x}=3.84$, $\sigma=1.013$); and Q30 ($\bar{x}=3.92$, $\sigma=0.809$) respectively.

5.1.2 Summary of inferential analysis.

The reliability analysis tested by Cronbach's α for the 4 variables is between 0.6 to 0.8, which indicates acceptable internal consistency and reliability for social science. Fornell-Larcker Criterion assessed the validity analysis. All AVE square root is more significant than other latent variables, which represents the discriminant validity is valid in this scenario. Pearson correlation coefficient analysis was tested to understand the linear relationship between variables (Taber, 2018). Based on Figure 2, the r-value of variables is around 0.4. All significant values (p-value) shown are statistically significant ($<.001$), and the result shows that there was a moderate and positive correlation between each independent (trustworthiness, expertise, and attractiveness) and dependent variable (the effect of social media fitness influencers towards youth fitness behavior). The expertise of social media fitness influencers owns the strongest relationship with the effect on youth fitness behavior among all variables, with the r-value of 0.484 and in contrast, trustworthiness has the weakest relationship with the effect on youth fitness behavior among all variables with the r-value of 0.455. Furthermore, all variables are significantly correlated with one and another as the p-value are all shown as less than $<.001$.

Three independent variables and a dependent variable were inserted into the regression test to explore the relationship between each variable. Case 83 (Figure 4), Case 78, and Case 79 (Figure 5) are presented outside the boxplots, where the first case was under trustworthiness and the remaining two are under expertise. No outlier was presented under attractiveness. Mahalanobis distance has also been tested and one out of 202 is an outlier as it has a p-value of less than 0.001. The P-Plot of the regression standardised residual test shows

that data is more or less being distributed normally (Figure 7) and it is homoscedastic as the points are evenly distributed (Figure 8). Nevertheless, the model summary (Figure 9) shows an r-value signifies 0.584, which shows that there is a moderate level of correlation ($0.5 < r < 0.7$). An ANOVA test was carried out to understand if the research results are significant and either deny the null hypothesis (H0) or accept the alternate hypothesis (H1). As a result, the linear regression model of this study was statistically significant as the result of p-value is $< .001$, which is lesser than 0.05. Also, a multiple regression analysis was conducted to discover multicollinearity and correlation strength for correlations between predictor variables. A moderate correlation ($1 > VIF < 5$) was displayed between a given and other predictor variables in the model. Trustworthiness, expertise and attractiveness have standardized coefficient values (β -value) of 0.181, 0.240 and 0.295, respectively. Last but not least, hypothesis testing was conducted and all hypotheses have been accepted.

5.3 Discussion of Findings

5.3.1 Trustworthiness.

H1: Trustworthiness developed by social media fitness influencers has a positive relationship towards youth fitness behavior.

Based on Figure 2, the trustworthiness developed by social media fitness influencers was significantly correlated with the effect of social media fitness influencers on youth fitness behaviour. The results show an r-value of 0.455 with a p-value of lesser than .001, which is lower than 0.05. This means a moderate and positive relationship exists between the two variables; hence, H1 is accepted.

According to Durau et al. (2022), trustworthiness has the most impact on respondents' fitness behaviour compared to expertise and attractiveness. Their male respondents show trustworthiness as having the highest impact on fitness motivation power. They also added that trustworthiness developed by influencers appears to be necessary for forming respondents' fitness behavior; meanwhile, it is known as the central influencer characteristic (Durau et al., 2022). Yet, trustworthiness had the weakest correlation value in this study. This means that the social media fitness influencers' trustworthiness has a lesser effect towards youth fitness behaviour than their expertise and attractiveness, which contrasts with the result of Durau's study.

On the other hand, this study's finding aligned with Sokolova and Perez (2021), which indicates that parasocial relationships have a moderate effect on motivation for fitness. In this study, all independent variables were statistically significant ($<.001$) and had a moderate and positive correlation with dependent variables. To sum up, research question 1 has been answered where trustworthiness developed by social media fitness influencers able to motivate youth and allows them to have greater intention on exercise, a change was made in fitness behavior.

5.3.2 Expertise.

H2: Expertise developed by social media fitness influencers has a positive relationship towards youth fitness behavior

Given Figure 2, the expertise developed by social media fitness influencers was significantly correlated with the effect of social media fitness influencers on youth fitness behaviour. The results show an r-value of 0.484 with a p-value of lesser than .001, which is lower than 0.05. This represents a moderate and positive relationship between the two variables. Thereby, H2 is accepted.

From the findings of Durau et al. (2022), the expertise of social media fitness influencers had the most substantial effect on motivating females in fitness. Also, the result of this study shares the same findings where expertise has the most decisive statistical influence on youth fitness behavior, in terms of motivating future fitness behavior, the intention of exercise, eliciting positive effects on intentions to follow the influencers' advice, sustaining exercise behavior, providing social supporting needed to continue exercising, to greater willingness in adopting healthier lifestyles retrieved from the survey questionnaire. Consequently, both results were aligned and supported with one another. In a nutshell, research question 2 has been answered as expertise developed by social media fitness influencers able to affect youth fitness behavior. Expertise was known as the main reason affecting youth fitness behavior.

5.3.3 Attractiveness.

H3: Attractiveness developed by social media fitness influencers has a positive relationship towards youth fitness behavior

According to Figure 2, the attractiveness developed by social media fitness influencers was significantly correlated with the effect of social media fitness influencers on youth fitness behavior. The results show an r-value of 0.483 with a p-value of lesser than .001, which is lower than 0.05. This indicates a moderate and positive relationship between the two variables. Therefore, H3 is accepted.

The previous study's finding shows that the attractiveness of fitness influencers positively and significantly promoted the parasocial relationships between social media fitness influencers and audiences (Li et al., 2023). In addition, they also found that when audiences perceive positive attributes in influencers, such as bodily and facial appearance, it affects them to interact with each other more and deeper trust will be developed (Li et al.,

2023). The appearance was said as the most crucial factor to be considered when forming a parasocial relationship. Research question 3 has been answered as the attractiveness of fitness influencers will allow them to form a parasocial relationship with audiences and there is a change in youth fitness behavior. In this study, attractiveness has a moderate effect on youth fitness behavior; thus, extra efforts should be made to become more significant in motivating youth fitness behavior.

5.3.4 Summarize discussion of findings.

Based on the research findings, we can conclude that trustworthiness, expertise and attractiveness were all significantly correlated with their effect towards youth fitness behavior. It has a moderate and perfect linear positive correlation (+1) towards youth fitness behavior. This is because each variable carries a p-value of less than 0.05 and an r-value between .30 and .50.

Moreover, a study shares the same result where the parasocial relationships might have a moderate direct effect on health awareness, which is a predictor for fitness (Sokolova & Perez, 2021). Sokolova and Perez (2021) proved that trustworthiness, expertise and attractiveness can build virtual proximity between influencers and youth in both genders. Plus, the previous finding explains that trustworthiness, expertise and attractiveness allow researchers to figure out how social media fitness influencers are dedicated to motivating users' fitness behavior. It shows a high correlation between social media fitness influencers affecting respondents' engagement in exercise (Durau et al., 2022).

5.4 Theoretical Implication

This study has successfully identified the parasocial relationships between social media fitness influencers and youth fitness behavior in Malaysia from the theoretical

framework through the implementation of the Social Cognitive Theory. Researchers hope the discovered results and findings can develop a new theoretical outlook for scholars in their future studies. Three of the independent variables, including trustworthiness, expertise, and attractiveness, developed by social media fitness influencers to youth, show a positive and significant effect towards youth fitness behavior.

When credibility, sincerity, honesty, the persuasiveness of messages, and the number of followers of social media fitness influencers cause youth to build trust towards them, they will begin to imitate the influencer, and fitness behavior might be affected. Next, the study result shows that the influencers' knowledge, skill, experience, qualification, and familiarity will build trust towards youth, possibly increasing the likelihood of motivating them to change fitness behavior. Besides that, the influencers' facial and bodily appearance and the frequency of posting online will cause youth to pay more attention towards them, meanwhile motivating them to imitate and vary in fitness behavior. The similarity between influencers and youth will also affect youth fitness behavior. The study found that independent and dependent variables were significantly correlated.

To sum up, following social cognitive theory, when influencers' behavior has influence and is recognised by followers, it may let followers remember, begin to follow and imitate their behavior. This may heighten followers' motivation for fitness and thus change in their fitness behavior. As a result, the proposed theory applied to the previous study. It can also be viewed as a reference assisting other researchers in understanding the trustworthiness (RO1), expertise (RO2), and attractiveness (RO3) developed by social media fitness influencers towards youth fitness behavior.

5.5 Limitations and Recommendations

Limitations refer to weaknesses of the study, and recommendations are significant to improve the limits of a future study.

Beyond the significant contribution of this study, some parts could be improved. Firstly, the age range of participants is limited. This research is only analyzing participants between the age of 15 to 24. Future research can consider extending the age range to young adults (Aged 18 to 39) instead of only youth (Aged 15 to 24). Further, it can even conduct future research on people in late-stage adulthood, adolescence, etc. This is because people in different age ranges may have different perceptions of fitness. Therefore, having participants from different ages allows researchers to have a greater understanding of how great the effects of influencers are towards the public's fitness behavior.

Additionally, there needs to be more male respondents, as most are female. The result shows a significant difference between gender, as 71.8% of females and only 28.2% is male respondents. Initially, the questionnaire was distributed to both female and male target audiences, however at the end, it turns out to have the most female responses. Hence, future research can consider getting a more even number of male and female participants to understand them better, as they might have different fitness behavior. Phung and Qin (2018) indicate that females and males have different decision-making perceptions. They even have different motivations for doing fitness (Sokolova & Perez, 2021). Besides, due to the limited time in completing the fundamental research, the sample size is insufficient to understand youth fitness behavior in Malaysia. Hereby, the sample size can be increased to a larger scale.

Next, the third limitation is the use of survey methods, referring to quantitative research. Although close-ended questionnaires in quantitative research can save much time for respondents and researchers, and lesser errors such as typos will appear in the results, it

has restricted participants from going in depth with their answers (Kuhn, 2020). They do not have the opportunity to elaborate further on their thoughts and opinions on the question asked. Since the answer has been set by researchers earlier, the respondents can only choose from answers provided such as 'Yes' or 'No' or 5-point Likert scale options ranging from 'Strongly Disagree' to 'Strongly agree'. Kuhn (2020) stated that if the answers provided are vague or mystifying, respondents are not able to get clarification and share their inner feelings. Therefore, qualitative research is recommended so that the researchers can include more valuable and helpful information in their findings. Otherwise, it enables researchers to understand respondents' thoughts and behavior about the survey subject (Cleave, 2017).

Other recommendations were suggested to understand the parasocial relationships between social media fitness influencers and youth fitness behavior in Malaysia. Beyond the three-source credibility, including trustworthiness, expertise and attractiveness, there could be other source variables affecting youth fitness behavior (Durau et al., 2022). For instance, motivating power, influencers' attitudes, task attractiveness, and content quality. It can be explored further to gain a greater understanding of this topic.

5.6 Conclusion

In conclusion, this study is being carried out to understand the parasocial relationships between social media fitness influencers and youth fitness behavior in Malaysia. The findings of the whole study have been discussed comprehensively, and the results of all independent variables, including trustworthiness, expertise, and attractiveness, developed by social media fitness influencers on youth have a positive and significant relationship towards youth fitness behavior. This study has been thoroughly analysed through a quantitative research approach, while SPSS software was used to analyse acquired data.

All items adopted in the survey questionnaire were shown as reliable and valid. Moreover, all the linear relationships between variables were tested through Pearson correlation coefficient analysis. The result indicates that all value is statistically significant (<0.01), moderate ($.30 > r < .50$) and perfect linear positive correlation ($+1$) between each independent and dependent variable. A past study shares the same result where the parasocial relationships might have a moderate direct effect on health consciousness, which is a predictor for fitness (Sokolova & Perez, 2021). Hence, there is a strong relationship between the independent and dependent variables. Among three independent variables, social media fitness influencers' expertise has the strongest effect on youth fitness behavior.

As referring to the multiple regression results, trustworthiness, expertise, and attractiveness were significant predictors toward the effect of youth fitness behavior as the VIF value was displayed between 1 and 5. The data achieved the criteria of running multiple regression as the p-value of all variables was lesser than 0.05. Without a doubt, attractiveness carries the highest standardized coefficient value (β -value), signifying that it is the most crucial variable affecting youth fitness behavior among all independent variables. This means that an influencers' facial and bodily appearance is crucial in attracting followers to pay more attention to them. Meanwhile, the more frequently shared posts online and the more remarkable the similarity found between followers and the influencer also affect followers to concentrate more on them.

On the other hand, all hypotheses of this study have been accepted. Social cognitive theory has been applied to define the study's research objective and research questions. The limitation of the study has been determined, and a few recommendations have been proposed as references for further study improvement. Lastly, all research objectives have been achieved while the research question has been answered.

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[%20if%20any%2C%20correlation.](https://sphweb.bumc.bu.edu/otlt/MPH-Modules/PH717-QuantCore/PH717-Module9-Correlation-Regression/PH717-Module9-Correlation-Regression4.html#:~:text=Possible%20values%20of%20the%20correlation,little%2C%20if%20any%2C%20correlation.)

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APPENDIX A: QUESTIONNAIRE

**The Parasocial Relationships Between Social Media Fitness Influencers and Youth
Fitness Behavior in Malaysia**

Survey Questionnaire

1. Acknowledgement (Multiple choice)
 - I hereby consent and agree to participate in this research.

Section 1

Demographic Information

2. Age
 - 15
 - 16
 - 17
 - 18
 - 19
 - 20
 - 21
 - 22
 - 23
 - 24
3. Gender
 - Female
 - Male
4. Job Status
 - Student
 - Employed
 - Unemployed
5. Highest Educational Level
 - PT3
 - SPM
 - STPM
 - Foundation/ A-level
 - Undergraduate
 - Post-graduate

Section 2**General Information**

6. Do you recognize any of the social media fitness influencers?
 - Yes
 - No
7. Do you follow any of the social media fitness influencers?
 - Yes
 - No
8. Have you watched any fitness content (live, video, post, etc.) performed by influencers?
 - Yes
 - No
9. What kind of physical exercise(s) content do you usually watch?
 - Aerobic
 - Zumba
 - Yoga
 - Gym
 - Cardio workout
 - Tabata
 - Others
10. Which platform(s) do you use in watching fitness content?
 - Facebook
 - Instagram
 - YouTube
 - Douyin
 - TikTok
 - Twitter
 - Weibo
 - RED
 - Bilibili
 - Other

(Durau et al., 2022)

11. Who make(s) you start following fitness influencers?
 - Family
 - Friends
 - Role models
 - None

Section 3**Parasocial Relationship-Trustworthiness**

* Likert scale: 1-Strongly disagree, 2-Disagree, 3-Somewhere agree, 4-Agree, 5-Strongly agree

(Durau et al., 2022)

12. Influencers' credibility will affect the persuasiveness of fitness information.

- Strongly disagree
- Disagree
- Somewhere agree
- Agree
- Strongly agree

(Durau et al., 2022)

13. Influencers' sincerity will affect the persuasiveness of fitness information.

- Strongly disagree
- Disagree
- Somewhere agree
- Agree
- Strongly agree

(Lim, 2021)

14. Influencers' honesty will affect the persuasiveness of fitness information.

- Strongly disagree
- Disagree
- Somewhere agree
- Agree
- Strongly agree

(Lim, 2021)

15. Messages delivered by influencers will affect the persuasiveness of fitness information.

- Strongly disagree
- Disagree
- Somewhere agree
- Agree
- Strongly agree

(Lim, 2021)

16. The number of followers owned by influencers will affect the persuasiveness of fitness information.

- Strongly disagree
- Disagree
- Somewhere agree
- Agree
- Strongly agree

Section 4**Parasocial Relationship-Expertise**

* Likert scale: 1-Strongly disagree, 2-Disagree, 3-Somewhere agree, 4-Agree, 5-Strongly agree

(Sokolova and Perez, 2021)

17. Influencers' knowledge will build your trust towards them.

- Strongly disagree
- Disagree
- Somewhere agree
- Agree
- Strongly agree

(Durau et al., 2022)

18. Influencers' skills will build your trust towards them.

- Strongly disagree
- Disagree
- Somewhere agree
- Agree
- Strongly agree

(Durau et al., 2022)

19. Influencers' experience will build your trust towards them.

- Strongly disagree
- Disagree
- Somewhere agree
- Agree
- Strongly agree

(Durau et al., 2022)

20. Influencers' qualifications will build your trust towards them.

- Strongly disagree
- Disagree
- Somewhere agree
- Agree
- Strongly agree

(Lim, 2021)

21. Influencers' familiarity will build your trust towards them.

- Strongly disagree
- Disagree
- Somewhere agree
- Agree
- Strongly agree

Section 5**Parasocial Relationship-Attractiveness**

* Likert scale: 1-Strongly disagree, 2-Disagree, 3-Somewhere agree, 4-Agree, 5-Strongly agree

(Lim, 2021)

22. The facial appearance of an influencer will attract you to pay more attention to them.

- Strongly disagree
- Disagree
- Somewhere agree
- Agree
- Strongly agree

(Lim, 2021)

23. The bodily appearance of an influencer will attract you to pay more attention to them.

- Strongly disagree
- Disagree
- Somewhere agree
- Agree
- Strongly agree

(Roy & Mehendale, 2021)

24. The similarity found between you and the influencer will attract your attention to them.

- Strongly disagree
- Disagree
- Somewhere agree
- Agree
- Strongly agree

(Sokolova and Perez, 2021)

25. The more frequent influencer posts online will attract you to pay more attention to them.

- Strongly disagree
- Disagree
- Somewhere agree
- Agree
- Strongly agree

Section 6**The Effect of Social Media Fitness Influencers towards Youth Fitness Behavior**

* Likert scale: 1-Strongly disagree, 2-Disagree, 3-Somewhere agree, 4-Agree, 5-Strongly agree

(Durau et al., 2022)

26. It will motivate my future fitness behavior.

- Strongly disagree
- Disagree
- Somewhere agree
- Agree
- Strongly agree

(Durau et al., 2022)

27. It allows me to have a greater intention of exercising.

- Strongly disagree
- Disagree
- Somewhere agree
- Agree
- Strongly agree

(Durau et al., 2022)

28. It will elicit my positive effects on intentions to follow the influencers' advice.

- Strongly disagree
- Disagree
- Somewhere agree
- Agree
- Strongly agree

(Sokolova & Perez, 2021)

29. It will help sustain my exercise behavior.

- Strongly disagree
- Disagree
- Somewhere agree
- Agree
- Strongly agree

(Sokolova & Perez, 2021)

30. It will provide the social support needed to continue exercising.

- Strongly disagree
- Disagree
- Somewhere agree
- Agree
- Strongly agree

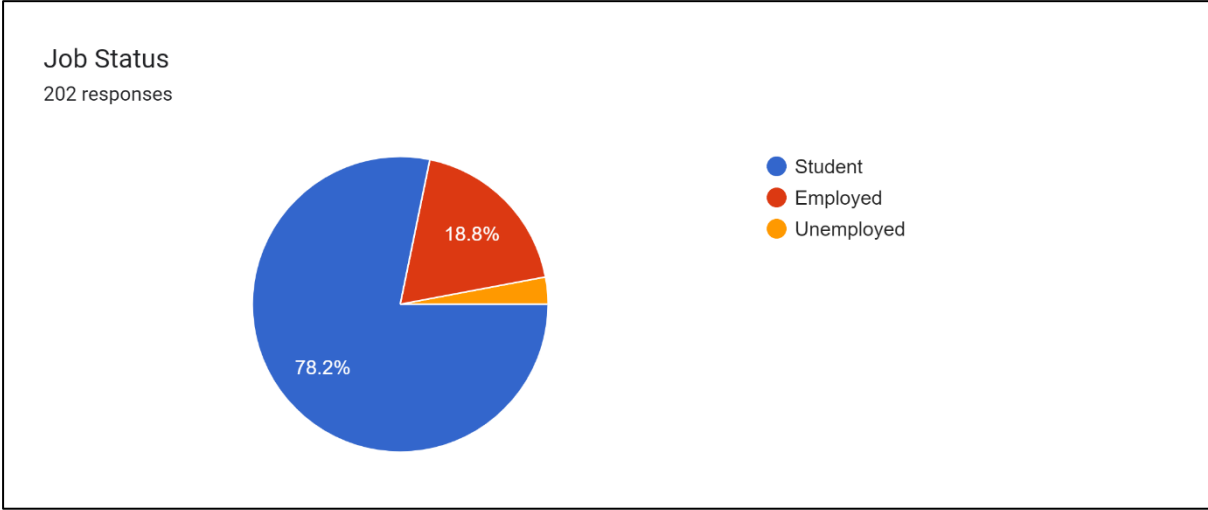
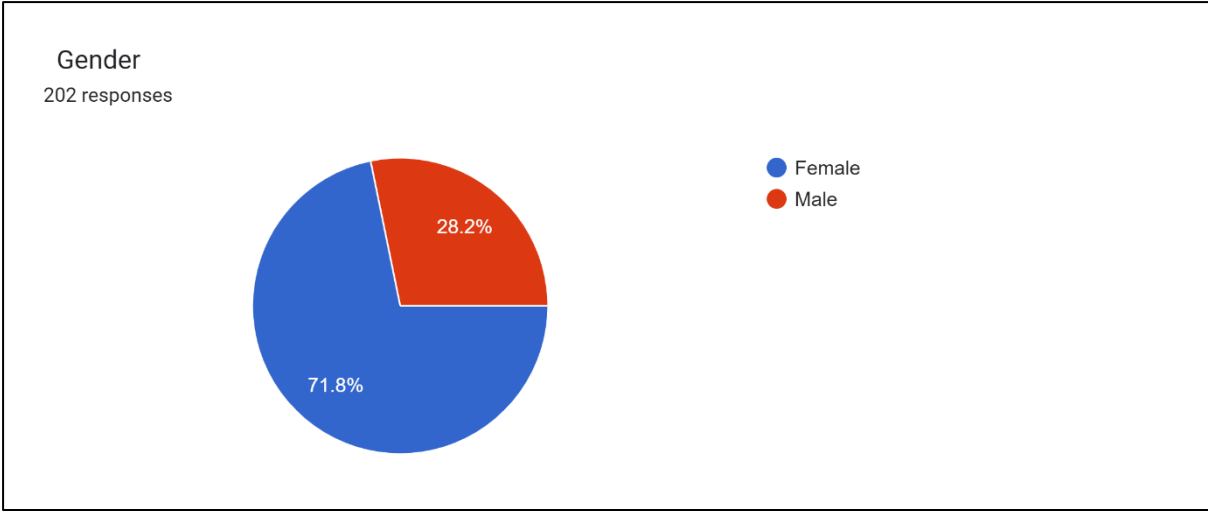
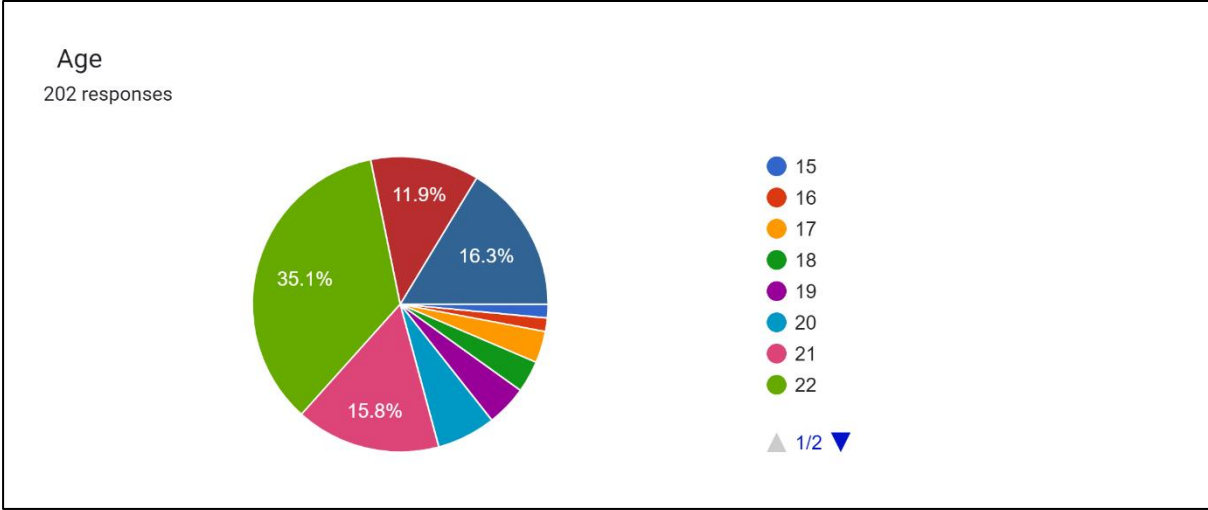
(Sokolova & Perez, 2021)

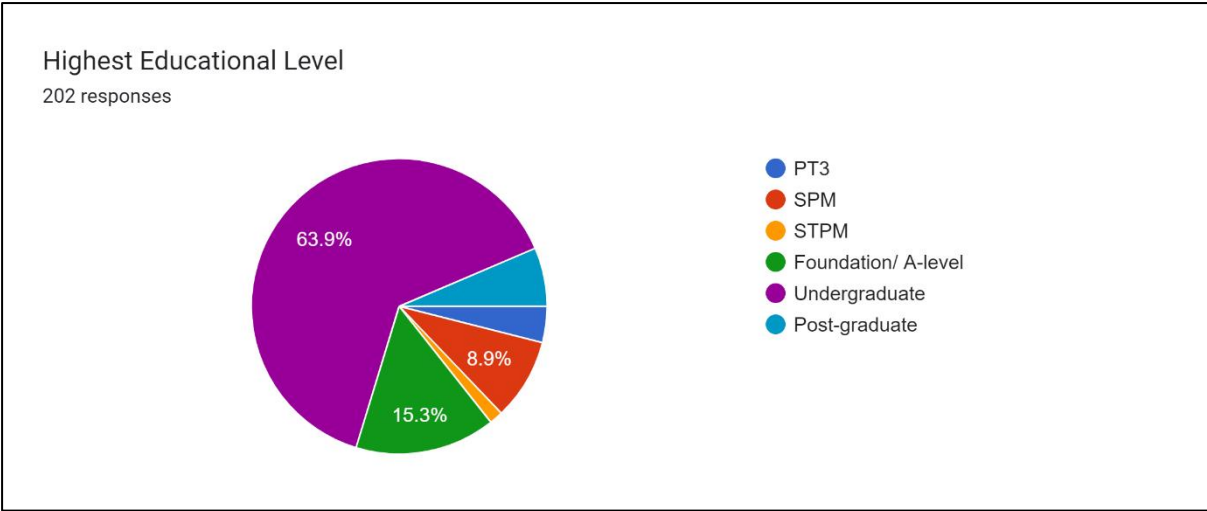
31. It will motivate me to have a greater willingness to adopt healthier lifestyles.

- Strongly disagree
- Disagree
- Somewhere agree
- Agree
- Strongly agree

APPENDIX B: ORIGINAL DATA

Section A: Demographic Information





Section B: General Information

