แบบจำลองอนุกรมในความสัมพันธ์แบบชื่นชมเพียงข้างเดียว กรณีศึกษาของผู้มีอิทธิพลต่อการออกกำลังกายในรูปแบบฟิตเนส
Serial Mediation Model of Parasocial Relationship: Case Study of Fitness Influencers

ดนยวรรณ จันโทกุล[1,] วรพจน์ ศิริชาลีชัย[2, *] และ มาริสา จันทมาศ[3]

Donyawan Chantokul, Worapoj Sirichareechai, and Marissa Chantamas

Abstract

Fitness personalities have moved online becoming fitness influencers on social media platforms. This study aims to investigate 1) the direct effects of parasocial relationships on purchase intention based on fitness influencers recommendations on their channels. 2) to examine the indirect effects of parasocial relationships on purchase intention following the fitness influencers recommendations on their channels mediated by self-presentation, self-brand loyalty, and brand trust in serial mediation. The study drew 353 respondents from followers and viewers of fitness influencers via YouTube channels. Analysis used serial mediation model.

The research results show that 1) there is no direct positive and significant relationship between parasocial relationship and purchase intention fitness influencers recommendations. 2) There is an indirect and significant relationship between parasocial relationship and purchase intention based on fitness influencers recommendations on their channels via self-presentation and connection to the brand through serial mediation analysis. 3) There is an indirect and significant relationship between parasocial relationship and purchase intention based on fitness influencers recommendations on their channels via self-presentation, brand connection and brand trust through serial mediation analysis.

Research findings reveal that self-presentation and brand trust play an important role in the relationship between parasocial relationships in the online domain. Finally, this research as theoretical and managerial applications for online fitness influencers through design and improvement of content to match followers' interests and influence consumers' decision making about products and increase platform efficiency. Future studies can further investigate the details of self-disclosure, including the depth, breadth, and frequency of self-disclosure.

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[1] คณะบริหารธุรกิจ และเศรษฐศาสตร์ มหาวิทยาลัยอัสสัมชัญ

Martin de Tours School of Management and Economics, Assumption University

[2] คณะบริหารธุรกิจ มหาวิทยาลัยรังสิต

Business Administration Faculty, Rangsit University

[3] คณะนิเทศศาสตร์ มหาวิทยาลัยอัสสัมชัญ

Alber Laurence School of Communication Arts, Assumption University

*Corresponding Author; E-mail Address: Worapoj.s@rsu.ac.th

บทคัดย่อ

ผู้ที่มีความรู้ทางด้านฟิตเนส ได้ผันตัวมาเป็นผู้มีอิทธิพลทางการสื่อสารบนช่องทางสื่อสังคมออนไลน์มากขึ้น งานวิจัยนี้มีวัตถุประสงค์ 1) ทดสอบอิทธิพลทางตรงของปฏิสัมพันธ์กึ่งมีส่วนร่วมต่อความตั้งใจซื้อสินค้าตามคำแนะนำของผู้มีอิทธิพลต่อการออกกำลังกายในรูปแบบฟิตเนสบนสื่อสังคมออนไลน์ 2) ทดสอบอิทธิพลทางอ้อมของปฏิสัมพันธ์กึ่งมีส่วนร่วมต่อความตั้งใจซื้อตามคำแนะนำผู้มีอิทธิพลต่อการออกกำลังกายผ่านตัวแปรคั่นกลาง การเปิดเผยตัวตน ความรู้สึก เชื่อมโยงกับแบรนด์สินค้าและความเชื่อมั่นในตราสินค้าผ่านแบบจำลองเชิงอนุกรม กลุ่มตัวอย่างในงานวิจัยนี้เป็น ผู้ที่ติดตามและรับชมรายการ การออกกำลังกายในรูปแบบฟิตเนส ผ่านช่องทางยูทูบ (Youtube) ของผู้มีอิทธิพลทางสื่อสังคมออนไลน์ จำนวน 353 คน ข้อมูลจากงานวิจัยชิ้นนี้ได้ถูกนำไปวิเคราะห์ข้อมูลเชิงสถิติ ด้วยโปรแกรมทางสถิติและทำการวิเคราะห์ผ่านแบบจำลองอนุกรม

จากผลการวิจัย พบว่า 1) ปฏิสัมพันธ์กึ่งมีส่วนร่วม ไม่มีอิทธิพลทางตรงต่อความตั้งใจซื้อ แต่ 2) มีอิทธิพลทางอ้อมต่อความตั้งใจซื้อ ผ่านการเปิดเผยตัวตน ความรู้สึกเชื่อมโยงกับแบรนด์สินค้า ผ่านแบบจำลองเชิงอนุกรม และ 3) มีอิทธิพลทางอ้อมต่อความตั้งใจซื้อตามคำแนะนำของผู้อิทธิพลต่อการออกกำลังกายในรูปแบบฟิตเนส ผ่านการเปิดเผยตัวตน ความรู้สึก เชื่อมโยงกับแบรนด์สินค้าและความเชื่อมั่นในตราสินค้า ผ่านแบบจำลองเชิงอนุกรม

คำสำคัญ: ปฏิสัมพันธ์กึ่งมีส่วนร่วม การเปิดเผยตัวตน ผู้มีอิทธิพลต่อการออกกำลังกายในรูปแบบฟิตเนส ความรู้สึกเชื่อมโยงเกี่ยวข้องกับแบรนด์สินค้า แบบจำลองอนุกรม

1. Introduction to the Study

YouTube has become an influential media around the world and Thailand is no different. It is found that the high volume of traffic on YouTube is due to the integration of content sharing on other social networks sites commonly used by the viewers. Also, it is found that most viewers prefer to watch entertainment and lifestyle content programs that are relevant to their interests and personalities. Consequently, it is found that there are significant differences resulting from the portrayal of brand characteristics with the level of parasocial relationship developed with the brand through the admiration they have for the influencers (Ferle & Edwards, 2006).

As a result, companies have favored the use of newer communication channels over traditional advertising. One of the areas that has seen significant growth is content marketing. This is because the new generation of consumers loved storytelling. As a consequence, consumers paid more attention to the stories that were relevant to their needs or wants. Thus, brands need to present themselves through stories to their target audience particularly through social media such as YouTube. According to Statista 2023 about 80.94% of Thai millennials and younger consumers prefer to buy products recommended by YouTube creators or celebrities. This is because YouTube creators and celebrities have a strong connection with their audiences. They have become a source of information on products/services, which eventually led to purchases (Halwani, 2019). Therefore, many brands started to use this channel to demonstrate the use of products through presentations as part of the programming (Hackley and Hackley, 2019).

Like in many countries, people in Thailand have started to adopt a more active and healthier lifestyle. There is a promotion for people to go out and exercise or join with recreational fitness rather than just doing their work. This has led to a significant growth in related businesses such as clothes, smartwatches, and other accessories. Thus, these consumers would like to turn to the experts in taking care of their health including those in the field of athletics. According to Mandala one of most interesting trends of 2023 was the growth of engagement and following of fitness influencers. This is because some of people do not feel confident to exercise in public. Thus, they prefer to subscribe and follow fitness influencers for their routine exercise needs creating the trend known as "Fit from Home".

At the same time athletes and fitness gurus have turned to social media as the platform to promote their own brand as well as sponsor brands (Doyle, Su, & Kunkel, 2022). Like celebrities' consumers/audiences have information about them from the media coverage. However, to understand how to manage the personal brands of these athletes, Walsh and Williams (2017) explained that it is important to understand the reaction of consumers and how they build the relationships beyond the area of their athletic performance. As mentioned by Sokolova and Perez (2021) it is important to understand how these fitness influencers influence attitudes and intentions through their content.

Fitness influencers are defined as influencers, who feature their bodies, show their exercise routine, share tips, propose mentoring coaching, and products with the goal to influence behavior of their audience regarding health and body care (Durau, Diehl, & Terlutter, 2022; Sokolova and Perez, 2021). Fitness influencers, who are successful in influencing behavior, should be trustworthy, have expertise, and attractive (Durau, Diehl, & Terlutter, 2022). Thus, this study would like to examine the antecedents of these perceptions towards fitness influencers.

Parasocial relationship has been used to describe the relationship between consumers and celebrities. It is described as the intimate relationship formed by fans or followers with their favorite celebrities. Initially, this concept is based on the psychology perspective to help marketers understand the use of brand endorsers to communicate with their target audiences. This particular relationship will occur when individuals often view media persona and develop a sense of belonging with the perception of their self-disclosure and friendship with the celebrity (Horton & Wohl, 1956; Masur, 2018). This theory has been used by Sokolova and Perez (2021) in their study examining the relationship between fitness influencers and their audience.

At the present, the methodology of revealing a person's picture or information on the social media is considered the most common and practical way for anyone to create his or her self-disclosure with their followers (Masur,2018). Thus, self-disclosure is likely to be inserted in all social media types. Many companies and brand regularly endorsed powerful influencers and aspirational groups with the hopes that individuals tend to emulate their behaviors in accordance with those influencers (Chung & Cho, 2017). They can therefore, reveal more honest emotional expressions to get in touch with their fans (Chung & Cho, 2017). Self-disclosure is basically found in most consumer psychology research studies and it is grounded in understanding the communication process whereby a person exposes his or her personal information to others. Thus, it is not very surprising that advertisers and researchers give more credit to this concept as it is one of the communication techniques to gain trust and can create positive attitude toward brand endorsers of the company. Thus, self - disclosure is the way to enhance relationships at the intimate level (Kwanng, Choi, & Lee, 2014). Consumers will feel more connected with the celebrities or brand influencers when presented in a more natural and common association like lifestyle content on social media.

Brand attachment or self-brand connection refers to "the extent to which individuals have integrated brands into their self-concept" (Escalas & Bettman, 2003). Previous research has shown that attachment to one's brand can lead to many positive marketing outcomes (Panigyrakis et al., 2019; Liu et al., 2021; DelVecchio et al., 2023). Similarly, DelVecchio et al. (2023) claimed that in the intense competition of many brands in the market, the brand that embraces and implements the concept of own-brand loyalty receives many benefits from consumers along their customer journey, such as consideration, purchase intentions and a

higher purchase rate. The development of the concept of self-brand connection is at the heart of brand literature, with a brand acting as a mechanism that motivates the consumer and the company in a constant customer–brand bond (Fourier, 1998). However, in the last decade there have been numerous studies that have looked at the role of self-branding in marketing. However, the impact of self-branding on digital marketing has not yet been sufficiently researched (Demirel, 2021; Michel et al., 2022; DelVecchio et al., 2023). These studies are still very limited and restricted to qualitative research and focus on consumers who only identify with the symbolic meanings and personalities of the brand (Kunkel et al., 2019; Liu et al., 2021). In addition, the integration of another concept into the complex relationship between the effects of self-branding and marketing outcomes in digital marketing in the form of quantitative research is lacking to keep track and provide guidance to marketers and researchers (Panigyrakis et al., 2019).

Brand trust is considered as one aspect of brand association that is necessary to bring the successful brand to be accepted by digital consumers in the market these days. For some reasons, the terms brand trust and brand credibility can be overlapped using and discussing in several research studies (Chaudhuri & Holbrook,2001; Ha, 2004). Basically, when referring to the consumer brand trust, it is in regarding to the perception of honesty, trustworthiness, reliability and expressing goodwill of the brand (Ganesan, 1994). In other word, the brand trust can imply the meaning of the credibility used in communication channels through the reference groups whom customers can refer to increase the credibility of the brands (Wu & Wang, 2011; Spry et al., 2011). Brand trust has been found to have the ability to reduce uncertainty risk (Delgado-Ballester, 2004) in previous literatures and has an ability to raise more confidence to consumers in their purchase intention and their loyalty to specific brands (Ha, 2004). The positive effects of brand trust have been found in communication perspective and lately through the social media channels from influencers or celebrities' page (Ha, 2004; Lau & Lee, 1999) In this case, the earned media using influencers deliver the message is entitled with a higher level of trust and credibility in consumers' perceptions (Brown, Broderick, & Lee, 2007, Johnson, 2004; Palmer & Koenig-Lewis, 2009; Wu, 2017).

The contribution of this study is the development of an integrated parasocial relationship model for fitness influencers on social media such as YouTube, which incorporates constructs such as self-disclosure, self-brand connection, and brand trust that impact purchase intention. In order to develop this model, the sequential mediation model would be used based on the recommendation of Ibrahim, Aljarah, and Sawaftah (2021). In addition, this study examines fitness influencers in the context of brand, which is different from previous studies concentrating on exercise behavior (Durau, Diehl, & Terlutter, 2022; Sokolova and Perez, 2021). Based on this integrated parasocial relationship model, the managerial contribution is the development for the guideline for the procedure in selecting and managing fitness influencers to increase purchase intention.

2. Research Question

      1. How is parasocial relationship with online fitness influencers that leads to purchase intention formed through self-disclosure, self-brand connection, and brand trust?

3. Research Objectives:

      1. To examine the impact of parasocial relationships on purchase intention.

      2. To examine the impact of parasocial relationships on purchase intention mediated by self-disclosure, self-brand connection and brand trust in serial mediation.

4. Literature Review

      Parasocial relationship or parasocial interaction (PSI) refers to the relationship between two parties, where one has significant information about the other while the other has very limited information of the first party (Horton & Wohl, 1956). This is the relationship common among celebrities and their followers, which applies to athletes and their fans as well. Dibble, Hartmann, and Rosaen (2016) explained that Parasocial relationship has been interpreted in slightly differently by various researchers. For the purposes of this study, the interpretation of Rubin et al. (1985) was used. Parasocial relationship is defined as the interpersonal involvement of the media user with what is consumed including seeking guidance from a media persona, seeing media personalities as friends, imagining being part of a favorite program's social world, and desiring to meet the media performers.

      To explain self-brand connectedness with media personalities the Social Identity Theory (SIT) proposed by Tajfel (1978) was used. SIT explains that an individual's self-concept is derived from their knowledge of membership in a social group including the value and emotional significance of belonging. In essence the Social Identity Theory is based on the personal and social identities of a person (Tajfel et al., 1979). In effect personal identity is described as the characteristics based on how one views oneself including factors such as unique talents, interests, and self-perception (Bartel, 2001). Social identity is described as the perception of belonging to a group resulting in identification with the group (Bhattacharya, Rao, & Glynn, 1995). Of interest in this research is the concept of how the individual is linked to others through social identity (Ashforth & Mael, 1989). Thus, the meaning of self is derived from the comparison with others and resulting relational perception. Hence, the self-concept is borne from the evaluations of others such as celebrities including online fitness influencers.

5. Hypotheses Development

      Many studies have researched the linkage between the parasocial relationship in many aspects, especially with celebrities and famous brand endorsers (Zhang & Huang, 2020; Ferle & Edwards 2006; Gerhalds, 2017: Kishiya, 2018). Social media is suitable for promoting and initiating the parasocial relationship between consumers and celebrities/ fitness

personalities, who endorse brands. The messages on social media could be viewed repeatedly featuring celebrities/fitness personalities. It could be accessed at any time as a means to connect with celebrities (Kim et al., 2015; Zhang & Huang, 2020). Parasocial relationship occurs between the followers and celebrity in SNS. Previous research has found that the parasocial relationship positively predicts consumers' purchase intensions (Lou & Kim, 2019; Taher et al., 2022; Purnamaningsih & Rizkalla, 2020). In addition, influencers play a role in connecting the brand or bringing attention about the brand to the audience (Russell & Stern, 2006; Kim, Ko & Kim 2015; Gerhalds, 2017).

H1: Parasocial Relationship (PSR) has a direct impact on Purchase Intension (PI)
The development of a relationship with the presenter or brand is found to be impacted by self-brand connection and brand trust (Power, Whelan, & Davies, 2006; Zhang et al., 2020). Self-brand connections is defined as the way customers connect their own self-concept with the personality of the presenter or brands (Escalas & Bettman, 2003). Other research explain that customers build their self-identity connected to the brand as an expression of their own personality (Escalas, 2004; Zhang & Huang, 2020). Self-brand connection leads to the intention to purchase products (Hollebeek et al., 2014). Another important construct is brand trust, which influences purchase (Aker, 1999). In addition, The credibility used in communication channels through the reference groups may also play an essential role in developing brand trust between consumers and brands (Wu & Wang, 2011; Spry et al. 2011). Once customers see a fit or connectedness with the online fitness brand influencer, they tend to have a higher level of brand trust, which leads to purchase intention.

H2: Parasocial Relationship (PSR) and Purchase Intension (PI) are mediated by both Self-brand Connection (SBC) and brand trust in serial mediation for online fitness influencers.

When customers have a common ground with online fitness influencers, they tend to collect more information, to learn more information, and to participate in all activities organized (Franzak et al., 2014). Previous examination of interaction Youtube celebrities or influencers reveal that the higher level of parasocial relationship between results from more credible and trust, which is the result of self-disclosure (Tolbert & Drogos, 2019). Self-disclosure as explained by Masur (2018) is the revelation of a person's picture or other information to convey a sense of honesty. Thus, self-disclosure is a means to create a connection at a deeper level. Previous studies have also found that brand trust could be enhanced through social media influencer communications (Ha, 2004; Lau & Lee, 1999).

H3: Parasocial Relationship (PSR) and Purchase Intension (PI) are serially mediated by Self-disclosure (SDC), Self-brand Connection (SBC) and brand trust in serial mediation for online fitness influencers.

Figure 1: Conceptual Framework
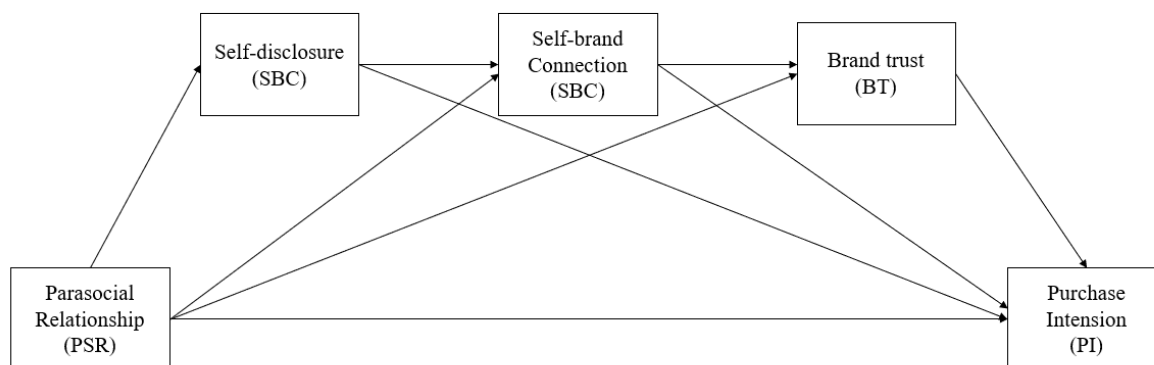
6. Research Methodology

In previous research studies of parasocial relationships, most used quantitative design by using the survey method for their studies (Carr & Hayes, 2014; Chung & Cho, 2017; Kishiya, 2018; Evans et al., 2017). The researchers chose to use PROCESS Macro to analyze serial multiple mediation. This approach enables the examination of both the direct and indirect effects of X on Y by simulating a process in which X affects M1, which in turn causes M2, and eventually leads to Y. The PROCESS Macro Model 6 was based on Hayes (2013), which establishes this logical causal chain with two and three mediators respectively. This model accounts for the indirect effect of each mediator while accounting for the other variables. The indirect effects of the independent variables on the dependent variable were estimated using bias-corrected bootstrap point estimates along with standard errors at the 95 percent confidence interval. In addition, the Preacher and Hayes macros provide regression coefficients for the exact causal steps of the indirect effects. For this study, the procedure was used to calculate the direct effect (c') of the independent variable (X) (parasocial interaction) on the dependent variable (Y) (purchase intention), as well as the indirect effect of individual variables. Serial mediation has also been used by other researchers to study the effect of brand trust and purchase intention (Cheng et al., 2019; Ling, Zheng, & Cho, 2023).

6.1 Sampling Methodology

The sampling methodology used in this study is the purposive sampling, which fits the required criteria (Etikan et al., 2016). The study requires knowledge regarding the online fitness influencer thus the respondents are those YouTube viewers and the fans or followers of fitness influencers on YouTube, who have experience watching the Youtube channel of choice in the past three months for three episodes. Hair et al. (2009) suggested that the number of samples should be at least five times the number of total variables used in the research analysis. In order to make it more acceptable and reliable results, the preferable size should be in the ratio of 10:1 (Kline, 2011; Kline, 2016). Thus, there are 22 measurement items in this study thus the sample size would be at least 220 in order to achieve 95% confidence.

6.2 Data Collection

The researchers utilized online survey by posting the survey link in the YouTube channel of the fitness influencers, who had excess of 1 million followers listed in Thailand superstar.com website. This is because the respondents have to be viewers of the fitness content of the influencers, who have watched the program in the past three months for at least three episodes. The results yielded 353 usable questionnaires, which is more than the recommended sample size of 220 based on Hair et al. (2009) rule of thumb.

6.3 Measurement Items

In this study, the online survey was divided into three parts excluding the screening section. The screening questions were used to ask to evaluate the qualified respondents. The screening questions were asked to check the frequency of watching the program selected by the followers or fans of the celebrities. The first part of the questionnaire is the respondents' demographic background, which consists of age, gender, income, educational level, and marital status. The second section is about the general information regarding social media behavior. The third section asks about the opinions towards the parasocial relationships with YouTube fitness influencers.

According to Haladyna (1999), face validity can help to evaluate the appearance of the questionnaire in terms of the readability, readability, consistency of style and formatting, and the clarity of the language used. Thus, to ensure face validity the back-translation was conducted (Malhotra, 2010; Churchill & Iacobucci, 2010). Three researchers and one marketing academic were asked to evaluate the questionnaire to reduce errors in the wording (Churchill & Iacobucci, 2010, Diem, 2015). The measurement items were scored using item-objective congruence (IOC) on a scale of -1 to +1. Items with a value less than 0.5 were improved while those items with a value greater than or equal to 0.5 were retained.

The seven-point Likert scale for an online distribution panel was recommended by Finstad (2010). Therefore, the multi-items were measured using a seven-point Likert scale (1= strongly disagree, 2= strongly disagree, 3= strongly disagree, 4= neither agree nor disagree, 5= somewhat agree, 6= agree, 7= strongly agree). The summary of the selection of the items are presented in Table 1. In addition, validity and reliability were examined using factor loading, Composite Reliability (CR), and Average Variance Extracted (AVE).

Table 1 Operationalization of Variables in the Study

Constructs	Conceptual Definitions	Operational Definitions	Adapted from
Parasocial Relationship	Intimate relationships as an essential of face-to-face relationship among people, especially for reference or aspirational group. It is known as a one-sided relationship, where the celebrities or media characters do not notice the existence of audiences.	The relationships consumers have groomed with the celebrities that encourage them to keep following and watching their activities and lifestyles on their social media channels.	Chung & Cho, 2017
Self-disclosure	The level of privacy is fundamental that a person form with his/her self-conscious behaviors, positing the intention to act a goal-directed behavior.	The degree to which celebrities exposes their privacy in term of their personal life and identity to viewers.	Masur, 2018
Self-brand Connection	Consumers perceive the brand closely when they notice that the brand is linked to themselves in some ways, especially for the linkage between a brand and their identities.	Consumers feel more connected with the fitness influencer (brand) as they are closed to their identities.	Harrigan et al., 2018
Brand Trust	The willingness of consumers to rely on the ability of the brand to perform its stated function.	Consumers trust the mentioned fitness influencers (brand) as being reliable in several aspects.	Chaudhuri and Holbrook, 2001; Brudvig, 2015
Purchase Intention	Intention to buy a product or service in the future as a result of cognitive reasoning and learning behavior.	Intention to buy product presented by online fitness influencers.	Rodgers (2003)

Table 2 Respondents' Profile

Demographic data	Frequency	Percentage
Gender		
Male	113	32.0
Female	240	68.0
Total	353	100.0
Age		
26-30 years old	93	26.3
31-35 years old	83	23.5
36-40 years old	104	29.5
41-45 years old	73	20.7
Total	353	100.0
Occupation		
Students	8	2.3
Private employees	219	62.0
Government employee	37	10.5
Business owner	75	21.2
Freelance	5	1.4
Housekeeper	9	2.5
Total	353	100.0

Income		
Less than 15,000 Baht	15	4.2
15,001-25,000 Baht	39	11.0
25,001-35,000 Baht	67	19.0
35,001-45,000 Baht	68	19.3
45,001-55,000 Baht	43	12.2
More than 55,001 Baht	121	34.3
Total	353	100.0
Education		
High school diploma	8	2.3
Secondary school	6	1.7
Vocational Certificate	10	2.8
Bachelor Degree	181	51.3
Master Degree or Higher	148	41.9
Total	353	100.0
Status		
Single	212	60.1
Married	132	37.4
Divorced	9	2.5
Total	353	100.0

Data was collected primarily from the YouTube channel of online fitness influencers, who create clips for fitness training. Respondents range in age from 26 – 45 years and most are women. This is based on previous studies that the respondents must be familiar with the content watching it for at least 5 minutes (Lin et al., 2009; Gerhalds, 2018). A majority of them are private company employees with primarily a bachelor's degree.

Table 3 Descriptive Data

Study Variables	Mean	SD	Cronbach Alpha	CR	AVE
PSR	5.04	1.05	0.82	0.76	0.7
SD	5	1.01	0.77	0.75	0.7
SBC	4.23	1.34	0.96	0.93	0.86
BT	4.62	1.16	0.95	0.91	0.82
PI	4.59	1.3	0.91	0.79	0.56

As shown in Table 3, the results illustrated the descriptive data (means and standard error) of five main construct; parasocial relationship (PSR), self-disclosure (SD), self-brand connection (SBC), brand trust (BT) and purchase intention (PI). Moreover, the results of Cronbach alpha indicated that all construct ranged from 0.77 to 0.95 which meet the over standard threshold ranged between 0.70 and 0.87 and indicated generally satisfactory (Taber, 2017). Moreover, to assess convergent validity, three conditions have been met in recent research. First, a CR value of more than 0.8. Second, an average extracted variance (AVE) of more than 0.5, And finally, AVE is less than CR. Table 2 shows that for almost all items studied, the values for CR are greater than 0.8, for AVE greater than 0.5, and for AVE smaller than the corresponding values for CR suggesting convergent validity. The

Exploratory Factor Analysis was conducted. It was found that the factors loaded on the constructs, the data yielded a Kaiser-Meyer-Olkin score of 0.95, which is above the benchmark of 0.9 and indicates exceptional performance (Kaiser, 1974). For the Confirmatory Factor Analysis, the recommended values for the various fit indicators as reported by Hu and Bentler (1999), Kline (2015), Hair, Black, Babin, Anderson, and Tatham (2010), and Hair et al. (2015) were used. For instance, the minimum discrepancy per degree of freedom (CMIN/DF, < 3.00) proposed by Hu and Bentler (1999) and the comparative fit index (CFI, > 0.90), goodness-of-fit statistic (GFI, > 0.80) and the adjusted goodness-of-fit statistic (AGFI≥ 0.80) as suggested by Hair et al. (2015), and the root mean square error of approximation (RMSEA, < 0.10) as suggested by Hair (1998).

Table 4 Fit Index Results

Measurement	Threshold	Resulted
Chi-square/df (CMIN/DF)	< 3	2.74
Comparative fit index (CFI)	>0.90	0.96
Goodness-of-Fit Statistic (GFI)	>0.90	0.89
Adjusted Goodness-of-Fit Statistic (AGFI)	>0.80	0.86
standardized root means square residual (SRMR)	<0.08	0.04
Root Mean Square Error of Approximation (RMSEA)	<0.08	0.07

The square root of the AVE of each construct was greater than the correlations between constructs. This finding indicates that compared with other constructs, each construct shared more variance with its measurement items and that discriminant validity was good. According to Higgins and Huff (1999), when each construct had more variance with its measurement items, it indicated that the result of discriminant validity test was valid. It is found that all constructs passed the criteria. In addition, the HTMT method was used to further confirm the discriminant validity. The criterion is that the HTMT ratio should be less than 1 (Henseler, Ringle, & Sarstedt, 2014). The results confirm discriminant validity. This is consistent with the results of the EFA.

Table 5: Results of Hypotheses Testing

Hypothesis	Relationship	Beta (β)	SE	Bootstrapping 95% BCa Confidence Interval		Results
				Lower	Upper	
H1:	parasocial relationship → purchase intention	0.10	0.06	-0.01	0.21	Rejected
H2:	parasocial relationship → self-brand connection → brand trust → purchase intention	0.12	0.02	0.08	0.17	Accepted
H3:	parasocial relationship → self-disclosure → self-brand connection → brand trust → purchase intention	0.06	0.02	0.03	0.10	Accepted

The conclusion and results of the hypotheses testing can be seen in Table 5, which demonstrates the direct and indirect impact of the parasocial relationship on purchase intention driven by self-disclosure, self-brand connection, and brand trust in the setting of fitness influencers on YouTube channels or online fitness influencers.

The results showed that there was no exclusive positive significant relationship between parasocial relationship and purchase intention surrounding online fitness influencers (β = 0.10, SE = 0.06; 95 percent CI 5 (-0.01, 0.21)). Consequently, H1 was not supported. The results show that there is a mediation effect of self-brand connection (β = -0.12, SE = 0.03; 95 percent CI 5 0.06, 0.18) and brand trust between the parasocial relationship and purchase intention (β = -0.10, SE = 0.03; 95% CI 5 (0.05, 0.18)) of online fitness influencers on YouTube channels. Thus, the results suggest that there is a partial mediation effect of self-brand connection and brand trust in this model. Next, sequential serial mediation was used to investigate the mediation effect of self-disclosure, self-brand connection, and brand trust in the context of online fitness influencers. The results showed the sequential serial mediation effect of self-brand connection and brand trust of parasocial relationship on purchase intention in the context of online fitness influencers (β = 0.06, SE = 0.02; 95% CI 5 (0.03, 0.10)). Consequently, H3a was accepted. In addition, the present results illustrated the sequential serial mediation effect of three mediators composed of self-disclosure, self-brand connection, and brand trust, which significantly serially mediated the relationship between parasocial relationship and purchase intention in the environment of online fitness influencers.

7. Discussion of Research Findings

This study had the aim to examine the models for using parasocial relationships to create individual-level fitness brands in the form of fitness influencers in social media. Previous research in the context of traditional advertising has shown a strong support for consumers to have strong purchase intentions to buy products endorsed by celebrities with whom they have parasocial relationships (Kim, Ko, & Kim, 2015). However, Hypothesis 1 is not supported, thus the findings do not support that parasocial relationship can directly impact purchase intention in the context of online fitness influencers. This result sheds light to the process wherein fitness influencers' content leads to purchase intention. It increases understanding of the previous studies, which found that online content provides information and influences consequent action of consumers (Spangler, 2015; Gerhalds, 2017; Singh & Banerjee, 2018). Despite Hypothesis 2 being supported the beta coefficient is slightly negative (β = -0.12, SE = 0.03; 95 percent CI 5 0.06, 0.18). This supports previous studies, which found that self-brand connectedness without disclosure was negative (Chung & Cho, 2017; Tran et al., 2022). In line with this logic, adding additional constructs would improve the model. Consequently, Hypothesis 3 is supported and the beta coefficient is positive (β = 0.06, SE = 0.02; 95% CI 5 (0.03, 0.10)). The findings indicate that self-disclosure is a critical construct in line with Chung

and Cho (2017) and Nguyen, Bin, and Campbell (2012). Self-disclosure impacts self-brand connections within the context of online influencer marketing, which is in line with Leite and Baptista (2021). This is confirmed by Labrecque (2014) that openness is a key to building parasocial interactions. Furthermore, it confirms the findings of Leite and Baptista (2022), which indicate that brand trust influenced by parasocial relationship has an impact on purchase intention.

8. Conclusion, Recommendations, and Limitations to the Study

The theoretical contribution of this study is the development of the integrated parasocial relationship model. Previous researchers have studied the relationship among the variables but have not studied them together in a unified model (Lou & Kim, 2019; Taher et al., 2022; Purnamaningsih & Rizkalla, 2020; Power, Whelan, & Davies, 2006; Zhang et al., 2020; Franzak et al., 2014; Tolbert & Drogos, 2019; Masur, 2018). The study developed the model using serial mediation, which is a statistical technique that allowed the examination of the indirect effect of each mediating variables while accounting for the rest of the constructs in the model. This confirms the role of self-disclosure as the construct in the parasocial relationship model that impacts other variables in the model, which are self-brand connection and brand trust on purchase intention. Thus, the model developed in this study reveals the connection between the theories of Parasocial Relationship and Social Identity Theory.

Based on the theoretical contribution, which developed a comprehensive model to explain the role of self-disclosure in the parasocial relationship model, which includes self-brand connection and brand trust on purchase intention. Thus, the managerial contribution is based on the fact that the effectiveness of influencers in this case fitness influencers, is a process. It starts with marketers' selection of fitness influencers, who have a certain level of parasocial relationship with their audience as a starter. In the second step, marketers' need to examine the content of the fitness influencers to see whether they have self-disclosure, which enhances their connection with their audiences. This is because self-disclosure is critical to creating a sense of friendship and sincerity, which is important in leading to self-brand connection and subsequently to brand trust. At this point, marketers' can connect their brand to the fitness influencers, which would increase the purchase intention of products.

The second set of managerial recommendation is designed for the fitness influencers. For them to be successful in the eyes of marketers so that they can get more income from product endorsements, they need to enhance parasocial relationship through self-disclosure, which can be done in many ways.

The first limitation is the subject in this study is fitness influencers on YouTube, which might limit the generalizability. Thus, future studies might include comparison across different types of influencers on YouTube. The second limitation is the lack of content analysis created by the fitness influencers, which would provide more details into the self-disclosure. Future

studies could further examine the impact of the self-disclosure dimensions as suggested by Masur (2018), which include the depth, breadth, and frequency of the information provided.

Furthermore, there are possibilities in studying the moderating role of demographics variables including gender, age, employment, income level, and education as well as psychographics such as personality (Ibrahim, Aljarah, & Sawaftah, 2021). This is made possible by the new statistical techniques as explained by Hayes (2013).

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