



Article

The Protocol and Feasibility Results of a Preliminary Instagram-Based Physical Activity Promotion Study

Zakkoyya H. Lewis * and Shalis Danayan

Department of Kinesiology and Health Promotion, College of Science, California State Polytechnic University Pomona, 3801 West Temple Ave., Pomona, CA 91768, USA; sdanayan@cpp.edu

* Correspondence: zakkoyyal@cpp.edu

Abstract: Background: Social media-based interventions are commonly used mode of delivery for physical activity promotion interventions. Instagram is an understudied social media platform and our purpose was to describe a detailed study protocol and report the feasibility of an Instagram-based physical activity promotion intervention. Method: Participants ($n = 45$) were recruited and randomized to follow one of three Instagram accounts for 3 months. The groups included a control, a popular fitness account, and two intervention groups. Participants were asked to complete weekly surveys for four weeks, at a 2-month follow up, and at a 3-month follow up. Participants were incentivized by being entered into a drawing for a free wearable activity monitor. Results: The intervention rate was 40% while the retention rate after four weeks was 33.3% and 22.2% after three months. Participants in the intervention groups reported higher education from the study account, enjoyment, and satisfaction. Conclusion: Although the study was well-received, more research is needed to determine how to increase retention within an Instagram-based intervention. Researchers should consider methods for participant identification, variations of interactive content, and extending the intervention period when designing their own study.



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Keywords: social media; physical activity; influencer; trust

1. Introduction

Physical inactivity is a global public health crisis [1]. Researchers have enlisted several different modes to deliver physical activity promotion interventions to the community including school-based interventions, wearable activity monitors, telephone-assisted interventions, Internet-delivered interventions, computer-tailored print interventions, and mobile phone programs [1]. Providing education and motivation, regardless of the mode, is a central component of all physical activity promotion interventions delivered to the community. The aforementioned strategies have shown positive effects on physical activity [1] however Internet-based interventions may offer the most potential. In particular, the use of social media on the Internet has great potential for widespread physical activity promotion due to its large audience, high user engagement and retention, and active engagement from the user [2].

Using social media can produce moderate improvements in physical activity but this is still an under-studied area [3]. Facebook, one of the most popular social media platforms, has been utilized by researchers to deliver interventions with moderate success [4]. However, a study of leading social media platforms showed that Instagram, Facebook's sister platform, elicits the most user engagement [5]. Like other social media platforms, Instagram allows users to post pictures, videos, link content with #hashtags, and share content [6]. Its functionality and potential for increased user engagement make it a promising platform for physical activity promotion. However, there are several unknowns before Instagram can be readily used for population-level interventions. Research is needed to determine how to optimize content for delivery on Instagram [6] and how to get users to

interact with intervention content on the platform [7]. The current study aimed to fill the current literature gaps. Our purpose was to describe a detailed study protocol and report the feasibility of an Instagram-based physical activity promotion intervention.

2. Methods

2.1. Formative Research

This study was designed with the input from a convenient sample of stakeholders. Current social media users were recruited to gauge their current use of social media and their preferences in a social media-based intervention. Eight adults took part in focus groups in Fall 2020. At the time of the focus group, stakeholders were social media users but did not use social media as their primary source of physical activity education. However, they expressed interest in educational content that was evidence-based and readily available through different platforms. Stakeholders also expressed a desire for personalized feedback and individual interactions. They were attracted to social media for the potential of support and community with others with similar interest. When asked which platform they preferred, stakeholders said Instagram, YouTube, and Facebook for their ability to share instructional videos. When asked who they would want to communicate with, stakeholders preferred health professionals that could provide individualized advice and feedback. Stakeholders were also willing to communicate with their peers whether that be persons that they know or strangers with shared interests.

Stakeholder feedback that was most informative to the design of the current study was how they would like information to be presented on social media. Stakeholders recommended that posting once a day was enough to keep them engaged in an intervention. Regarding the content, they wanted video and live interactions to demonstrate exercises and answer questions. They also wanted access to data and evidence through infographics. Stakeholders expressed wanting content shared as saved stories in addition to regular posts. Their suggestion was to save posts into stories that can be categorized into topics. They also recommended that postings should follow a schedule where certain topics will be shared on the same day each week. This would allow the potential participants to have a schedule for the intervention. As one stakeholder said “*Yeah, I also like the one a day and I also, it’s easy for me to follow if like Mondays motivational, and then Wednesdays a story and then Friday’s always the exercise for me to practice over the weekend* (Female).” Lastly, stakeholders wanted to view success stories from other participants and wanted to receive recognition through a post.

Considering the feedback we received from stakeholders, we designed the Physical Activity and Social media Support (PASS) study.

2.2. Protocol

The PASS study was approved by the Institutional Review Board (IRB-21-8) and registered on clinicaltrials.gov (NCT04744077). This report follows the CONSORT guidelines [8]. The PASS study took place from January-June 2021 and all study activities were completed virtually.

The PASS study was a 3-arm randomized intervention through Instagram with participants randomized to one of three Instagram accounts (control, student, and scientist). Potential participants were recruited on a rolling basis from February-March 2021 through social media ad postings and through various University listservs. An example of the social media ad is presented in Figure 1. Eligibility criteria included 18 years and older, below the recommended 150 min of moderate-to-vigorous exercise per week [1] and have an active Instagram account. Participants were excluded if physical activity was inadvisable based on the Physical Activity Readiness Questionnaire Plus [9,10].

Join our study!

Are you not physically active?
Are you interested in exercise content on Instagram?
You may be eligible for our study

What is it?

- Researchers are interested in what people think about exercise-content on Instagram
- All you have to do is follow and answer surveys
- You COULD win a new Fitbit

Interested?

Complete our enrollment survey to learn more and get started.

<https://tinyurl.com/PASSrecruit>

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SPACE IS LIMITED. SIGN UP NOW!

Figure 1. Paid social media ads.

Through the recruitment material, potential participants were instructed to complete an online survey to determine eligibility (Supplementary Materials, Table S1: PASS Participant Survey Questions). Eligible participants were instructed to complete the study questionnaire and submit their contact information so they can be given the Instagram account to follow for the study. Once participants were deemed eligible and completed the enrollment survey, they were randomized to their study group. Randomization relied on an enrollment sequence created by an online random number generator [11,12]. Each number in the randomized sequence represented one of the three study groups. Numbers were generated in blocks of six. Participants were enrolled sequentially based on when they completed the enrollment survey.

The study Instagram accounts posted educational and informative content on a daily basis for 13 weeks. Participants were encouraged to interact with the posts and with their fellow participants. Participants were instructed to complete a questionnaire every week for 4 weeks and complete follow-up questionnaires at 2 and 3 months. As an incentive to complete the study surveys, participants were entered into a raffle where 30% of participants received a free wearable activity monitor, valued at \$150. Participant names were entered into the raffle for each completed survey.

2.3. Intervention

Participants were randomly enrolled into the control group or one of two intervention groups (student or scientist).

Participants randomized to the control group were asked to follow a public account. This account was chosen because they have a strong following (over 600,000 followers) and it is a public account that anyone can follow. The content shared on this page is motivational and community driven. There is a focus of healthy living with an emphasis on exercise. Additionally, there are no paid sponsorships or radical exercise advice, which is common on other influencer pages. The co-authors determined that this page accurately represents the good quality exercise-related content that is readily available on Instagram. The research team did not have control over the content of this account, but the account holder was notified about the study.

Participants enrolled to either intervention arm (student or scientist) received the identical content. The difference between the two arms was who was represented as the account holder. The “student” arm was managed by a Kinesiology student and health care worker (SD). SD did not disclose this information but presented herself as a general college student. By withholding her area of study and career aspirations, we hoped to obtain unbiased feedback on what participants think about the content being presented. The

“scientist” arm was managed by a Kinesiology professor and certified exercise physiologist (ZHL). ZHL did disclose this information on the account. This group was considered the “gold standard” because it provided evidence-based content delivered by an exercise scientist. Both intervention accounts were professional Instagram account which mirror the structure of the control group and allowed for the co-author to view engagement insights provided by Instagram. This also meant that the accounts were public to all Instagram users. The co-authors regularly managed their friend list to ensure that only known accounts were viewing the content.

The intervention arms delivered 13-weeks worth of content which would ensure that all participants observed regular posts for at least 4 weeks. The content schedule and weekly topics are outlined in Table 1. Example of a week’s worth of intervention content is available in Figure 2. All of the content delivered was evidence-based and referenced from reputable organizations and agencies such as the American College of Sports Medicine, American Heart Association, Center for Disease Control, and World Health Organization. The source references were not available on Instagram. A secondary aim of the study was to determine whether participants had confidence in the information presented on Instagram. For this reason, references were not available for the participants. Before posting the video on Friday, the co-authors met to discuss which questions they will answer and co-wrote responses, so the information was the same between the two intervention arms.

Table 1. Schedule of Intervention Content.

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday/Sunday
Daily content schedule	Exercise infographic: Provide physical activity related data	Exercise tip and/or instructional video: Provide education on the principles of exercise science and/or provide an instructional video on how to perform an exercise	Motivation: Provide a motivation statement or education on exercise motivation	Ask the admin a question: Through the stories feature, participants submitted an exercise-related question to the admin	FAQ answers: The admin uploaded a video answering questions they received the previous day	Weekend warriors: Through the story feature participants were encouraged to share their weekend exercise plans
Weekly topic	Week 1: Physical activity and health Week 2: Physical activity guidelines Week 3: Aerobic exercise Week 4: Walking Week 5: Strength training Week 6: Recovery Week 7: Exercise Week 8: Overload Week 9: Specificity Week 10: Progression Week 11: Adaption Week 12: Reversibility Week 13: Individual differences					

2.4. Study Measures

All study data was collected through online surveys (Qualtrics XM, Qualtrics, Drive Provo, UT, USA). Demographic information and baseline measures were collected in the enrollment survey. This included age, gender, race, residence, length of time using Instagram and self-reported physical activity (measured by the International Physical Activity Questionnaire (IPAQ) short form [13]). The primary purpose of this study was to determine the feasibility of implementing a randomized physical activity promotion intervention through Instagram. Secondary aims were to determine whether participants

had confidence in the information presented through the study Instagram account and to examine physical activity changes over the course of the intervention. To assess the study aims, data was collected from participants weekly for four weeks, 2-month follow-up, and 3-month follow up. Data included participant's perceptions of the intervention, acceptability of the intervention, self-reported physical activity [7], and level of interaction with the intervention accounts. Participant data was identified using their Instagram account name, but no other identifiable information was collected in the follow-up survey. A copy of the enrollment survey and follow-up survey is available in Additional file 1: Study survey.

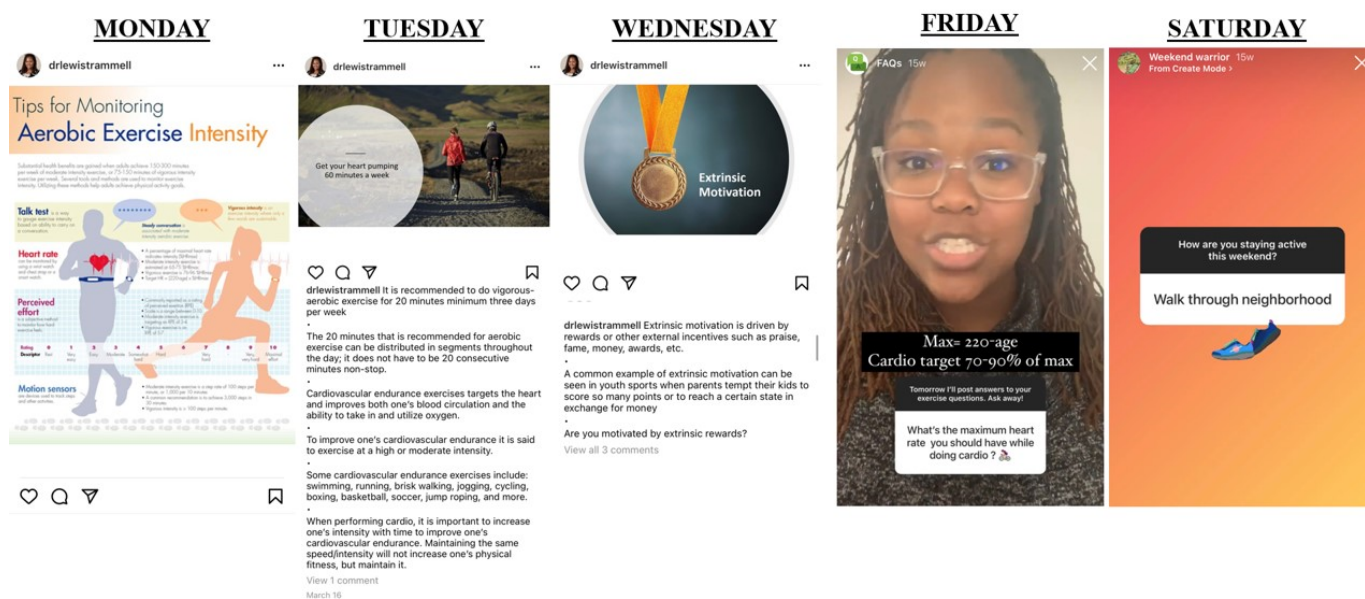


Figure 2. Sample of a Week of Intervention Content.

2.5. Statistical Analyses

The Statistical Package for the Social Sciences (SPSS, version 26, IBM, Chicago, IL, USA) and NVivo 12 Plus (QSR International, Melbourne, Australia) were used to perform the quantitative and qualitative analyses, respectively. The α -level was set at 0.05. Descriptive statistics were calculated by means and frequencies. Comparisons between groups were analyzed by a One-way ANOVA and Kruskal–Wallis tests depending on whether the study variable was continuous or categorical, respectfully. Outcomes were assessed using the intent-to-treat principle carrying the last measurements forward. Short answer survey responses were analyzed using the NVivo auto-code feature and themes were confirmed by the investigators [14].

3. Results

3.1. Reach

Participant recruitment took place from February–March 2021. During the recruitment period, two ad campaigns were launched through Instagram. The first campaign used the platform's algorithm to target all adults in the United States with a total budget of \$20 while the second campaign was used to target adults in the United States interested in fitness with a total budget of \$20. The first campaign reached 3334 users and yielded 19 likes, 26 shared, and 6 saves to the user's collection. The second campaign reached 1721 users and yielded 8 likes, 9 shares, and 9 saves to the user's collection. The first campaign resulted in 82 visits to the enrollment website while the second campaign resulted in 61 visits. We were not able to collect data on outreach efforts through University channels.

The recruitment rate (40%) is displayed in Figure 3. A total of 112 individuals started the enrollment survey. Sixty-seven individuals were excluded and the remaining 45 were

randomized to one of the three study arms. Attrition based on the completion of the study surveys after 4 weeks was 66.7% and 77.8% after 3 months. Only 57.8% of participants were retained after two weeks. Given the nature of the study, participants may have continued to follow their randomized study Instagram account but did not complete the study surveys. Participants that discontinued submitting study surveys were statistically different in race/ethnicity compared to participants that completed the four-week study survey ($p = 0.02$).

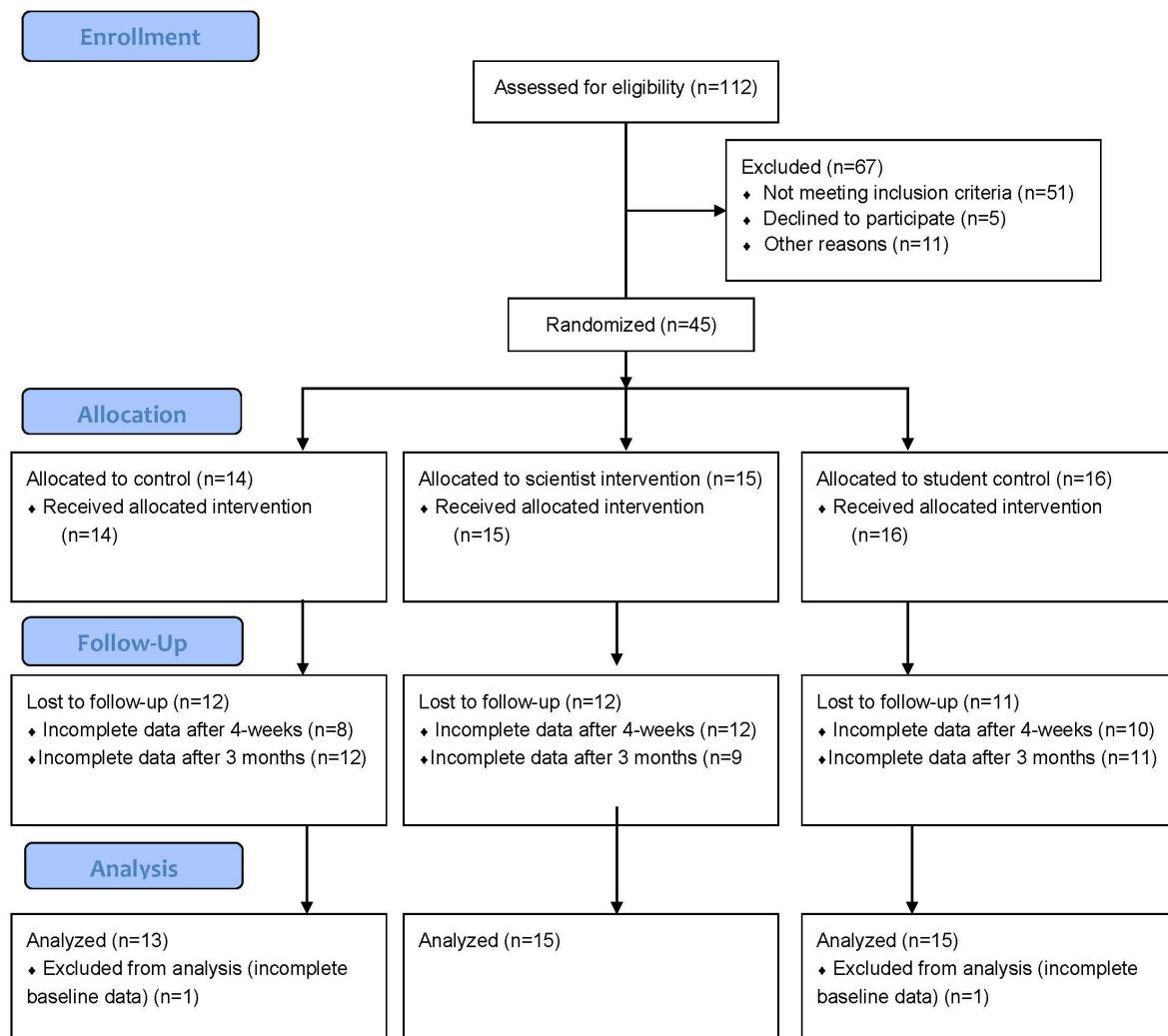


Figure 3. CONSORT flow diagram.

Participants were not statistically different by study group. Overall, participants were largely young adults, white females. Most participants resided within the United States outside of California. These states included Arizona, Colorado, Georgia, Illinois, Maryland, Missouri, New Jersey, New York, Ohio, Oregon, Pennsylvania, Rhode Island, Texas, and Utah. Nearly all participants received at least some college education and were regular Instagram users. Most participants were categorized as high physical activity based on the IPAQ. Participants were excluded for being active based on a single-item questions that asked the individual to report how many minutes of planned exercise they complete each week (see Additional File 1: Study Survey). The IPAQ categorizes individuals as high, moderate, or low activity based on the number of days they report taking part in vigorous or moderate activities [13]. A complete summary of participant characteristics is displayed in Table 2.

Table 2. Participant characteristics.

	Scientist Group (n = 15)	Student Group (n = 16)	Control Group (n = 14)	Total (n = 45)
	%			
Age				
18–25 years	33.3	44.4	53.8	46.5
26–39 years	40.0	33.3	38.5	39.5
40–59 years	26.7	5.6	7.7	14.0
Gender				
Male	46.7	14.3	7.7	23.8
Female	46.7	86.7	9.3	73.8
Non-binary	6.7	-	-	2.4
Race				
White	46.7	64.3	30.8	47.6
African American/Black	16.6	14.3	23.1	16.7
Asian	20.0	14.3	23.1	23.8
Other	6.7	7.1	23.1	11.9
Where do you reside?				
CA	40.0	35.7	61.5	45.2
Other	60.0	64.3	38.5	54.8
Level of education				
High school graduate	-	20.0	-	7.0
Some college	20.0	40.0	53.8	37.2
2-year degree	13.3	6.7	7.7	9.3
4-year degree	40.0	6.7	23.1	23.3
Professional degree	26.7	26.7	15.4	23.3
Time using Instagram				
6–12 months	6.7	-	-	2.3
1–2 years	-	-	7.7	2.3
>2 years	93.3	100.0	92.3	95.3
Frequency using Instagram				
1–3 times per month	6.7	-	7.7	4.7
1–6 times per week	6.7	6.7	7.7	7.0
1–2 times per day	6.7	13.3	15.4	11.6
3–6 times per day	20.0	40.0	38.5	32.6
7+ times per day	60.0	40.0	30.8	44.2
Physical activity category				
High	53.3	60.0	57.1	56.8
Moderate	26.7	6.7	35.7	22.7
Low	20.0	33.3	7.1	20.5

3.2. Feasibility

Over the course of the intervention there were no reported adverse events. The observed retention, measured by the rate of completed study surveys, was very low. At the study's primary completion data at four-weeks only 33.3% of participants completed the study survey. This fell to 22.2% after the final follow-up at 3 months. Participants that completed the survey at least once reported interacting with their assigned Instagram account less than 5 times per day; there was no difference in the interaction frequency between study groups.

There was modest interaction from intervention participants with the accounts. In the scientist group there were 69 likes, 58 comments, and one direct message from eight (53.3%) study participants over 13-weeks. In the student group there was 49 likes, 0 comments, and one direct message from five study participants (31.3%) over 13-weeks. Interaction information was not available from the control group.

3.3. Acceptability

Acceptability results from the study survey are displayed in Table 3. The interventions groups were more acceptable compared to the control group based on learning new information and account satisfaction. The student intervention group was significantly more enjoyable than the control group. The groups did not differ based on physical activity category after four weeks.

Table 3. Acceptability after 4-weeks (using Intent-to-Treat Principle).

	Scientist Group (n = 15)	Student Group (n = 15)	Control Group (n = 13)
Did you learn something new about physical activity from the Instagram account? (%)			
Strongly disagree	6.7	-	30.7
Somewhat disagree	20.0	6.7	23.1
Neither agree nor disagree	20.0	33.3	23.1
Somewhat agree	26.7	40.0	23.1
Strongly agree	26.7 *	20.0 *	-
On a scale of 1–10, how much do you enjoy the Instagram account? (mean, SD)	5.9 (3.2)	6.8 (2.6) *	2.9 (2.6)
Overall, how satisfied are you with the account? (%)			
Extremely dissatisfied	-	-	30.0
Somewhat dissatisfied	11.1	9.1	30.0
Neither satisfied nor dissatisfied	33.3	18.2	20.0
Somewhat satisfied	44.4	54.5	20.0
Extremely satisfied	11.1 *	18.2 *	-
Physical activity category (%)			
High	66.7	73.3	42.9
Moderate	6.6	6.7	35.7
Low	26.7	20.0	21.4

* significantly different from control group ($p < 0.05$).

When asked about what participants liked best about the Instagram account, themes varied based on study group. Food was the only theme identified in the control group. Participants commented on the meal plans and nutrition plans shared on this account. The comments were equally positive and negative. Story postings was the primary theme identified in the student group. As one participant commented “I like it when the person answers questions about exercise on her stories! I can’t seem to find her posts on my feed since she’s drowned out by other accounts that I follow.” Participants expressed appreciation that the content was shared through stories and that there was interaction with followers through the Frequently Asked Questions Fridays. Story postings was also an identified theme in the scientist group, as well as advice and workout tips. However, the most prevalent theme was information. The participants in this groups expressed that the information presented was helpful, credible, and valuable. One participant simply put that the account provided “Good advice & trustworthy information.” All of the sentiments from the two intervention groups were positive. A theme that was present in all study groups was the account format. Participants liked the concise information and images/graphics.

4. Discussion

The primary objective of this study was to determine the feasibility of an Instagram-based physical activity promotion intervention. It has been hypothesized that the use of social media has considerable potential for physical activity health communication and would increase physical activity levels. Previous studies have suggested that the use of social media influenced increasing physical activity levels by acting “as a motivational modality [that] could be effective to reinforce adherence” [15]. These include extrinsic motivational factors such as positive health and flexibility of at home exercise. Use of these motivating factors through social media platforms resulted in 30% improvement in motivation and 25% increased effectiveness through previous studies [15]. When comparing to the present study, participants indicated approval of the informational content provided, but did not indicate level of motivation.

4.1. Study Findings

In the present study, the feasibility of a social media based physical activity intervention cannot be confirmed due to very low survey retention. Measured by the rate of completed study surveys, the observed retention was only 33.3% at four-weeks and dropped to 22.2% after the final 3-month follow-up. The expected percentage of data availability of 95% was not met, indicating that the study should be repeated to confirm the feasibility of this type of physical activity intervention [16].

Moreover, investigating participant perceptions of the designed social media intervention was an objective of this study. In the scientist group, 26.7% of participants reported strongly agreeing that they had learned something new, while in the student group, 20.0% of participants reported strongly agreeing that they had learned something new. This is statistically significant when compared to the control as no participants indicated that they strongly feel that they have learned something new about physical activity. This may indicate that the program was effective in an educational manner but may have lacked in activity adherence. These results are comparable with the previous study who found that a social media-based program was effective to encourage participation in physical activity but adherence to the intervention was insufficient [7].

Participants were also asked to rate their enjoyment of the account, providing insight into the impact of the account holder, and posting frequency impact on program engagement and perceptions. Participants in the control group rated the account a 2.9 on a 10-point scale, the scientist group rated the account a 5.9, and the student group rated the account a 6.8. These results reflect low enjoyment in the control group with modest enjoyment in the scientist and student groups. We identified three major variations between the control and the intervention groups that conceivably impacted the level of enjoyment from the participants. Firstly, posting frequency varied. The two experimental pages posted daily in a consistent manner, while the control pages posted more sporadically. This considerably decreases the amount of content that the control group was exposed to which may decrease enjoyment. Secondly, the control group lacked an interactive element during the study period that is often present in many physical activity programs. Both the scientist and student-led groups answered participant questions through the Instagram story question and answer feature. This element brought a sense of interaction between the account holders and participants which was lacking in the control group. Both the frequencies of postings and the interactive elements of the intervention groups offered increased interaction opportunities for participants which may play a significant role in overall motivation and sustained behavior change [2]. Finally, the account holder may have an impact on participant satisfaction. Despite stating no qualifications, the student group had the highest approval rating. This could be a result of relatability as the student account was run by a young adult, white female, similar to the majority of the participant demographic. More research is needed to determine whether these factors play a meaningful role in participant enjoyment.

4.2. Social Media Feasibility

Due to the growing influence of social media on physical activity and motivation, the feasibility of social media as a means of physical activity program delivery should be further studied and considered. Other social media-based studies have taken various platforms into consideration for relaying educational physical activity content. A previous study on the usage of Instagram determined that Instagram was an effective motivational modality from at home exercise program in improving physical activity adherence [15]. Additionally, the results amongst various platforms are relatively similar. For example, some studies indicate that platforms such as Facebook have initial effectiveness at improving health behaviors and outcomes in college students [17]. As well as possible improvement of health outcomes, the use of digital platforms to host such programs are inexpensive and may provide a cost-effective method of health intervention [18]. Thus, it can be seen that the use of social media-based interventions and programming for physical activity have potential. However, the fidelity of implementing such interventions is still low [2] and few authors report on the feasibility aspects of the study. More studies should be carried out to determine the exact feasibility in such studies.

4.3. Lessons Learned and Future Directions

Upon completion of this study, certain factors should be taken into consideration.

Another method of participant identification should be used. In the present study, participants were identified through the use of their Instagram usernames. This was problematic due to the ability for participants to change their Instagram handles at any time, causing difficulty in data collection. A method should be used that does not include confidential information and will remain the same, such as numbering.

The engagement techniques planned for Saturday and Sunday in the weekly schedule should be increased in variety and rotated through. Mostly, participants were asked their physical activity plans for the weekend. While initially effective, responses decreased as the study progressed. Toward the end of the study, account holders asked participants to rank how much they plan to exercise. For future studies, other types of interactions through the Instagram story feature should be considered for engagement.

The study duration and recruitment techniques should be increased. Due to a short study period, the maximum number of participants were not reached, and, of those who did participate, there was low survey retention. Future studies should consider an increase in recruitment efforts to ensure a greater breadth of participants and subsequent data available for analysis.

4.4. Limitations and Strengths

The present study had some limitations. The enrollment survey did not inquire about how participants inquired about the study, whether that be through clinicaltrials.gov, university listings, or social media ads. For future research, this factor should be considered in order to effectively determine the reach of a social media-based program. Additionally, the study measures relied on self-report which resulted in various limitations in data collection for several reasons. Results are subject to reporting bias as participants were answering questions regarding approval of content provided and the account holders, possibly knowing that these individuals would be the ones to review responses. Instagram handles, rather than participant names, were used as identifiers and participants were able to change their account handles which made attributing responses to a specific participant impossible at times. Many participants skipped over survey questions because the questionnaire did not require answers to all questions. This led to gaps in participant responses and interfered with continuity in the resulting data. Finally, the study took place over the course of three months. Due to limiting the study to this short period, the maximum number of participants was not reached. The goal number of participants was 60 total with 20 in each group. Only 45 individuals total participated in the study. Future studies should increase the study period so that increased sample sizes may be considered. Taking these points

into consideration, the most prevalent limitation of the present study is the low retention in survey responses. Despite prize incentive, participants did not continue to respond to subsequent surveys. As a result, data was incomplete and had to be accounted for using the intent-to-treat principle. Despite decreased survey response retention, participants may have continued to be exposed the intervention by continuing to follow the accounts on Instagram. For these reasons, the results presented from this preliminary study focus on the protocol development and implementation feasibility. Although we present participant outcome data on their perceptions of the study and physical activity, the effect on these outcomes due to the intervention alone cannot be determined. Future research should consider these factors and identify ways in which to increase assessment response rate.

The present study had some strengths that should be replicated during further research. Firstly, the educational content that was provided to participants was able to translate evidence-based information into short, interpretable, and palatable posts. In this way, content was easily understandable and shareable amongst participants and their individual spheres of influence. Additionally, as seen amongst the two experimental groups, was the ability to interact with participants and offer some degree of individualization through the question-and-answer segments each Friday. This aspect was well received in both the scientist and student-led group and should be replicated in future studies of this nature. Finally, the virtual and remote aspect of this program during the time of the COVID-19 pandemic has potential. Researchers were able to effectively interact with participants in a safe manner while maintaining individualization that is not present in many online programs. This is encouraging for replication of such studies for larger population level interventions.

5. Conclusions

Our purpose was to describe a detailed study protocol and report the feasibility of the PASS study, an Instagram-based physical activity promotion intervention. We found that the study was able to reach adults across the United States in a short recruitment period and participants were willing to interact with the study account. However, feasibility could not be confirmed due to the low retention measured through completed assessment surveys. Future studies should identify methods to increase retention and increase assessment completion within Instagram-based interventions. Our results do suggest that the PASS study is acceptable as intervention participants reported learning about physical activity, enjoyed the account, and were satisfied with the content. Future studies should consider utilizing different methods of identifying participants, varying interactive content, and extension of the study period upon replication of this study.

Supplementary Materials: The following are available online at <https://www.mdpi.com/article/10.3390/technologies9040070/s1>, File S1: PASS Participant Survey Questions, Table S1: CONSORT checklist.

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Institutional Review Board Statement: The study was conducted according to the guidelines of the Declaration of Helsinki, and approved by the Institutional Review Board of California State Polytechnic University Pomona (IRB-21-8 approved 26 January 2021).

Informed Consent Statement: Informed consent was obtained from all participants involved in the study.

Data Availability Statement: Data supporting reported results can be found on ClinicalTrials.gov at <https://clinicaltrials.gov/ct2/show/NCT04744077> (accessed on 20 September 2021).

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Conflicts of Interest: The authors declare no conflict of interest.

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