

Assessment of Pharmacist-Led Education for Diabetes Self-Management in Americans with Low Socioeconomic Status

Ashley Wensing, PharmD Candidate, Molly Smith, PharmD Candidate, Andrea Wooley, PharmD, BCACP, and Chris Lynch, PharmD

SOUTHERN ILLINOIS UNIVERSITY EDWARDSVILLE SCHOOL OF PHARMACY

BACKGROUND

Diabetes and the complications of diabetes disproportionately affect patients of low socioeconomic status. ^{1,2} Diabetes self-management education programs, or DSME programs, are one way to help patients gain the knowledge they need to help control their diabetes and reduce their risk for complications.³

OBJECTIVE

The purpose of this study is to obtain feedback on videos created for a pharmacist led DSME-*like* program that will be used to educate people with diabetes that are of low socioeconomic status.

METHODS

STUDY DESIGN

A focus group was conducted to evaluate and critique clips from three videos that featured pharmacists educating on different topics of diabetes. Participants also completed a brief demographics survey as well as a survey on the videos at the conclusion of the focus group.

STUDY SAMPLE

Participants were adults 18 years and older that were diagnosed with either diabetes or prediabetes and were either on Medicaid or did not have health insurance.

FOCUS GROUP PROCEDURE

One focus group consisting of five participants was conducted. A faculty moderator led the focus group, and two student investigators took notes. Participants chose a pseudonym to use during the focus group discussion to help retain anonymity. They watched a ten-to-fifteen-minute clip of the video and then discussed it with the moderator before moving on to the next video.

VIDEO CONTENT OVERVIEW:

The first video included an explanation of the types of diabetes, risk factors, signs and symptoms, and pathophysiology. The second video provided information on the medications used to treat diabetes, including the mechanism of action, side effects, and how to take it. The third video included how to read an OTC label and information about how being sick can affect blood glucose.

DATA COLLECTION

The original methods included using Zoom to record the audio for the focus group to then later transcribe. The student investigators were to take notes to supplement this recording. However, the recording failed, and the data collection was done by combining the student investigators' notes and discussing them with the moderator to ensure completeness.

DATA ANALYSIS

Data analysis was completed by the two student investigators and consisted of sorting their notes into meaningful categories.

RESULTS

VIDEO ACCESS

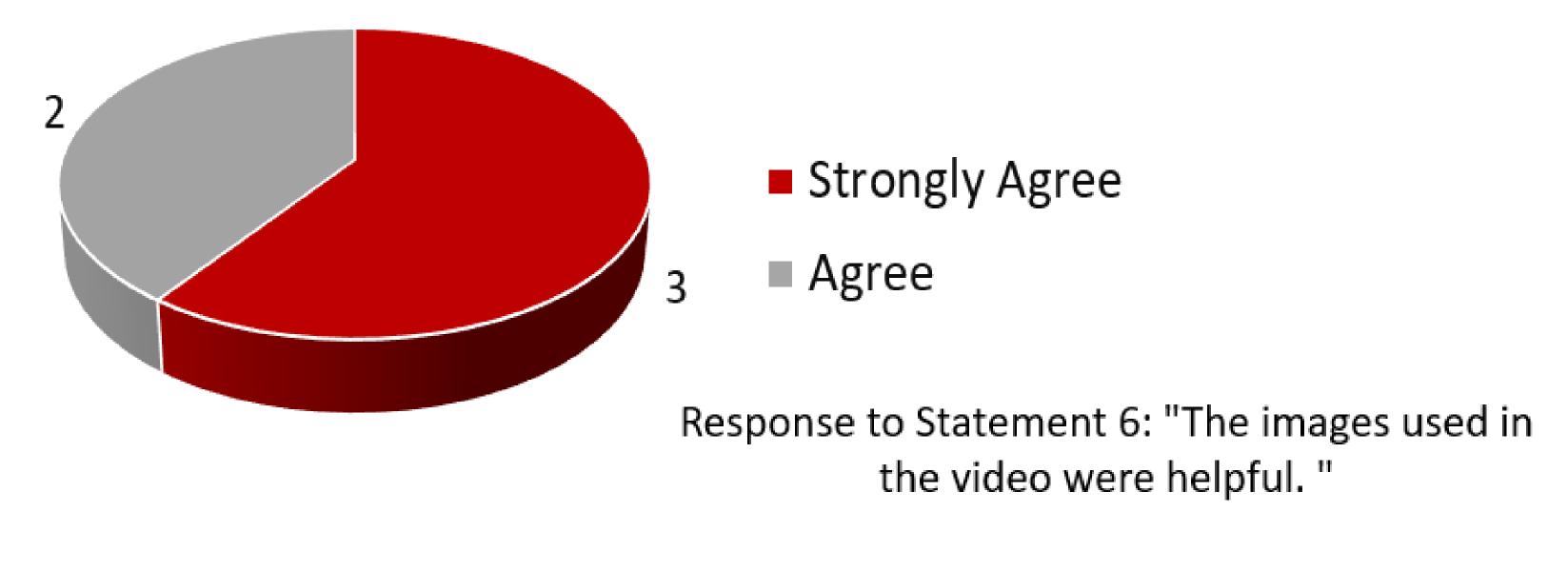
When asked about internet access, all participants stated that they had at least one way to access the internet; however, one did not have an e-mail and therefore felt they would have trouble accessing the videos. Some felt having an additional resource to utilize while watching the videos, such as a PowerPoint handout, would be beneficial because they may be using a small screen such as their phone to watch the videos.

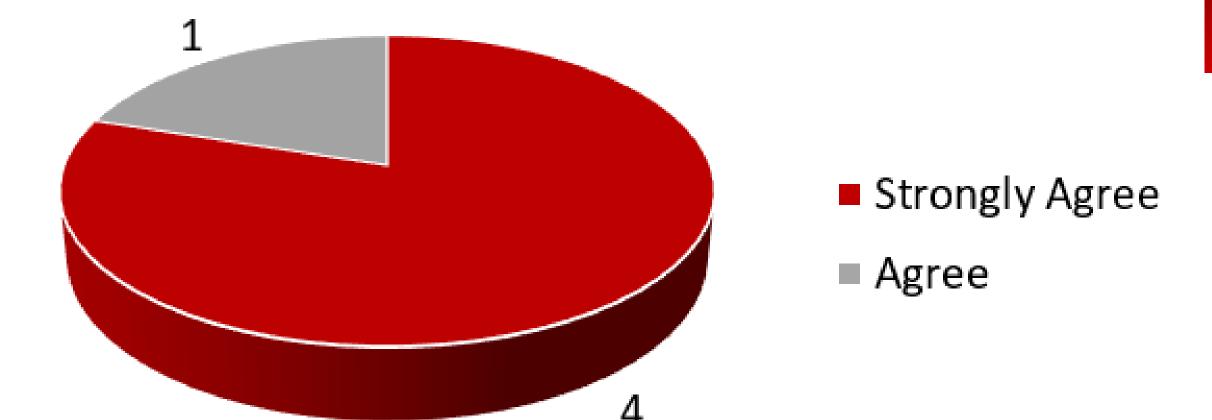
UTILIZATION

All participants felt they would utilize the videos if they were given access to them, and they also stated that they learned a lot during the videos.

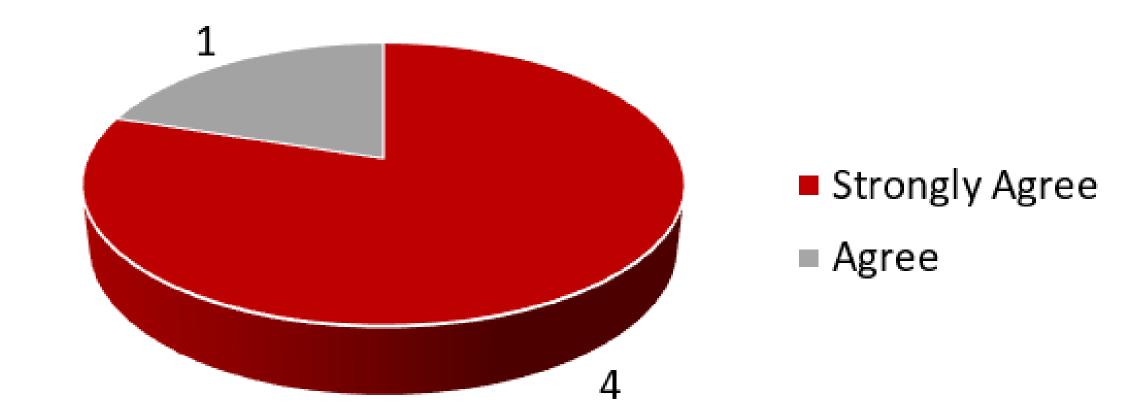
Video #	Participant Feedback:
	 "I like the differentiation between A1c levels and blood glucose, which is a random snapshot." However, some participants felt that the terms "disease states," "homeostasis," and "insulin resistance" were not very patient-friendly.
2	 "If there was a way to only watch a video portion for the medications that the patient was currently taking [instead of all medication options], that would be better." Another suggestion was to explain why certain lab values need to be checked for certain medications.
3	 Every participant expressed that they could not see the specific OTC labeling sections that the pharmacist was discussing. "It would be nice if the pharmacist gave us a prompt that asked us to grab an OTC medication from home and follow along while she explained the labeling."

Response to Statement 4: "I understood the information in the video easily."





Response to Statement 7: "The information I learned from this video will help me have better control of my diabetes."



DISCUSSION

<u>VIDEO #1</u> Due to feedback regarding patient-friendly terminology, it is recommended to change "disease states" to "other health conditions," change "homeostasis" to "the body's state of a healthy balance," and change "insulin resistance" to "the body not responding to insulin."

<u>VIDEO #2</u> It is recommended that a slide is added to the beginning of the video that lists the times at which each medication is discussed so that patients may skip to the medications they are currently taking, but still have access to the full video for future use.

<u>VIDEO #3</u> It is recommended that the slides be reformatted to provide easier viewing on smaller screens. It is also recommended that a pause is added to allow patients to grab an OTC at home and follow along.

LIMITATIONS

The original inclusion criteria of the study required that participants be Black Americans. However, this was not enforced, and ethnicity data was not collected. This created some confusion during the focus group and may have impacted the feedback received. In addition, the intended method for data collection was to use two digital software recorders to audio record the focus group. One recorder failed due to human error, and the other failed due to technical difficulties. Therefore, the notes are less complete than a transcribed recording would have been.

CONCLUSION

Overall, the focus group was beneficial. It provided valuable insight regarding how these videos will be perceived and utilized by patients. Regardless if the current video content is changed, feedback from our focus group overall indicated that the videos in this DSME-*like* program were a useful and accessible tool for patients with diabetes in the low socioeconomic population.

REFERENCES

- (1) Everson SA, et al. Epidemiologic evidence for the relation between socioeconomic status and depression, obesity, and diabetes. J Psychosom Res. 2002. doi:10.1016(2) Tatulashvili S, et al. Socioeconomic inequalities and type 2 diabetes complications: A
- systematic review. Diabetes Metab. 2020. doi:10.1016
- (3) Background, terminology and benefits. Centers for Disease Control and Prevention. https://www.cdc.gov/diabetes/dsmes-toolkit/background/index.html. Published August 10, 2021. Accessed February 2, 2022.