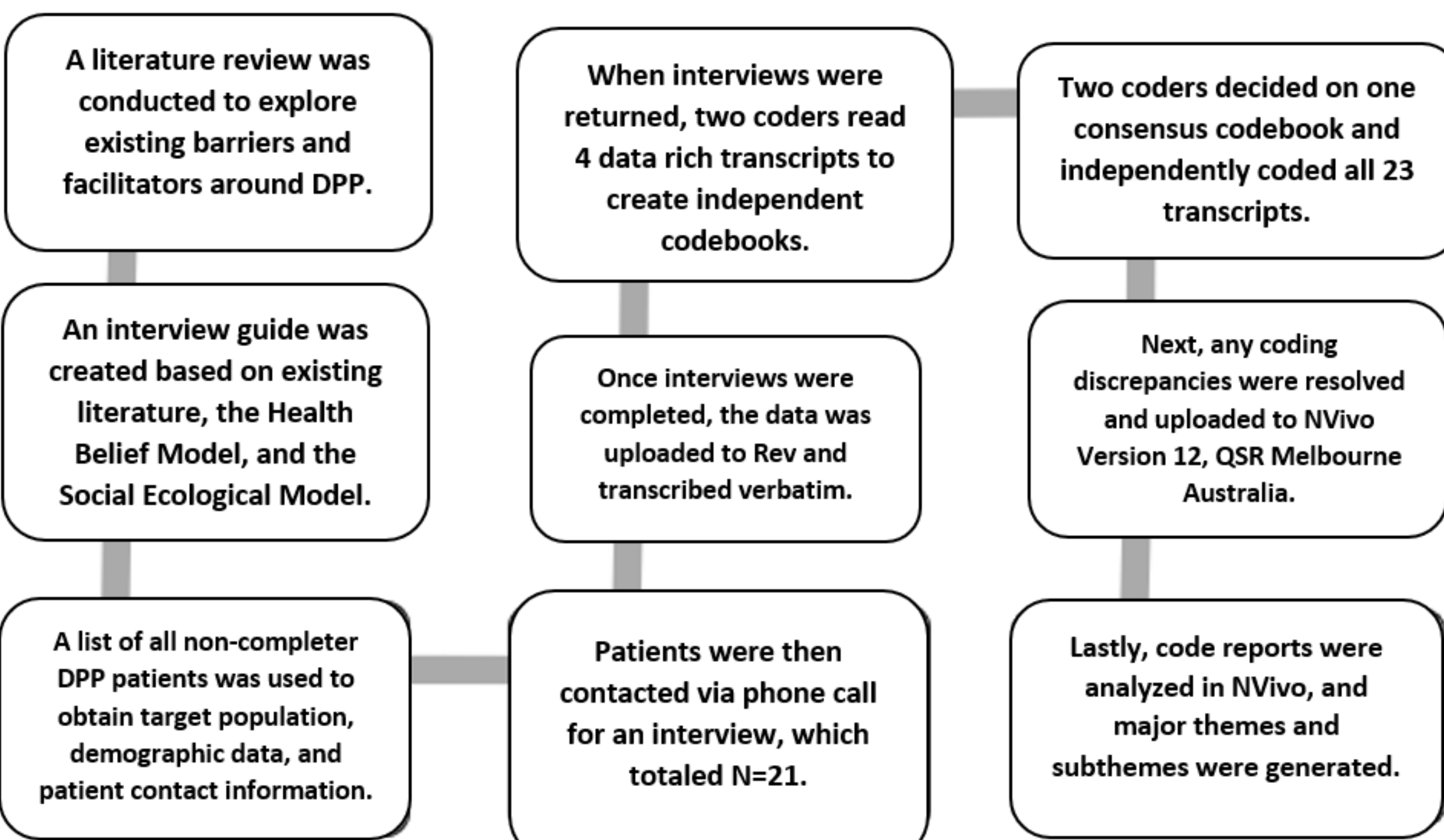


## INTRODUCTION 1

- Type 2 Diabetes affects over 35.4 million people in American each year, and 1/3 adults with prediabetes are unaware they suffer from the health condition.<sup>2</sup>
- Lifestyle changes taught in the Diabetes Prevention Program (DPP) such as increasing physical activity and maintaining a healthy weight have been proven to lower a person's risk for developing Type 2 Diabetes.<sup>3</sup>
- In a 10 year follow up study completed by the CDC, they found that compared to people who did not complete the program, those who completed the DPP in its entirety were 1/3 less likely to develop Type 2 Diabetes.<sup>3</sup>
  - However, many people who begin the 12-month DPP do not complete it in its entirety.<sup>4</sup>
  - Existing literature shows that barriers to retention include lack of connection with the lifestyle coaches, transportation, childcare and work conflicts.<sup>5</sup>
- The purpose of this project is to discover possible barriers that hinder participants from fully engaging and completing the DPP. With this knowledge we can improve future cohorts and increase participant retention.

## METHODS 1



- This project was deemed as a quality improvement by the UMCIRB and did not need further IRB approval.
- Participants for the project were identified from an existing list of all DPP patients at ECU Family Medicine. This list was further narrowed by excluding deceased patients and patients with 100% noted attendance.
- Interview guide consisted of questions related to barriers and facilitators of participant attendance, adherence, and overall experience.
- On average each interview lasted approximately 12 minutes. The shortest interview was 56 seconds, and the longest interview was 36 minutes and 9 seconds.
- Based on interview guide questions and any data there were newly emergent from transcripts, a consensus codebook was created.
- Coders independently coded 21 transcripts.
- Code reports and frequency tables were used to determine major themes and subthemes.

## PARTICIPANT DEMOGRAPHICS

- Participant demographics are in Table 1 below.
- A majority of participants in the project identified as Non-Hispanic Black, were 60-79 years of age, and female.
- Major themes, subthemes, and corresponding quotes appear in Table 2. Themes and subthemes revolved around the larger concepts of enrollment, motivation to join, positive experiences, and barriers to attendance.

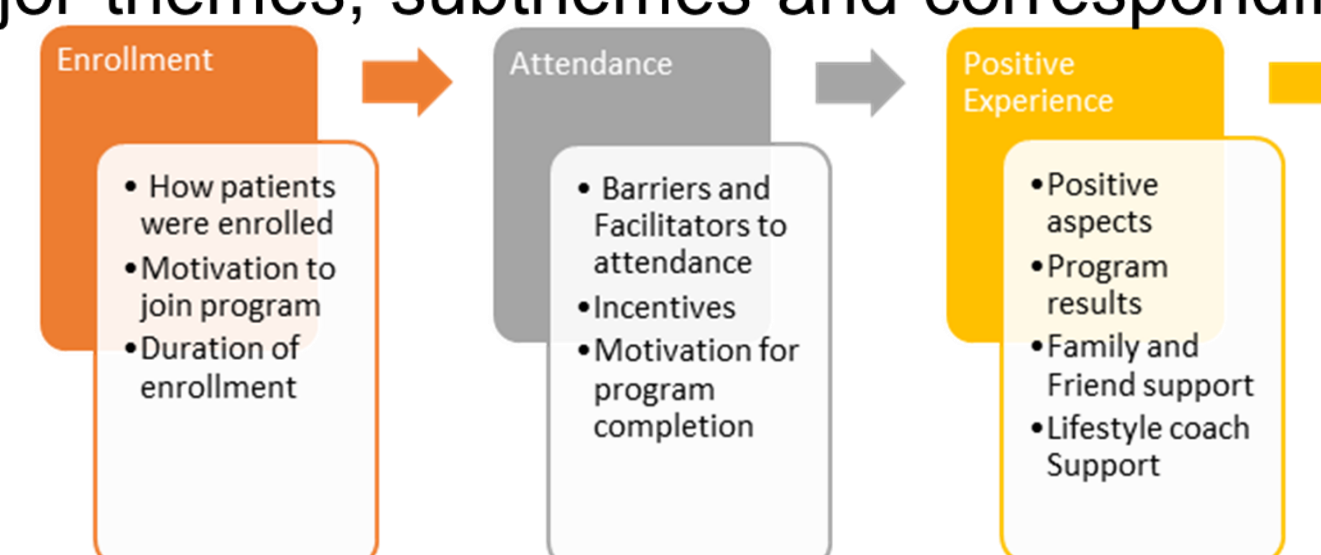
Characteristic	Total DPP Patient Population (n = 133)		Project Sample Population (n = 21)	
	Number	Percentage	Number	Percentage
<b>Age groups</b>				
18-39 years	24	18.05%	4	19.04%
40-59 years	54	40.60%	8	38.10%
60-79 years	53	39.85%	8	38.10%
80+ years	2	1.50%	1	4.76%
<b>Biological Sex</b>				
Male	16	12.03%	3	14.29%
Female	117	87.97%	18	85.71%
<b>Race/ethnicity groups</b>				
American Indian or Alaska Native	1	0.75%	0	0%
Non-Hispanic Black	93	69.92%	12	57.14%
Non-Hispanic White	35	26.33%	9	42.86%
Hispanic	2	1.50%	0	0%
Other	2	1.50%	0	0%

Table 1. Participant characteristics for total DPP patient population versus project sample population.

## RESULTS

Major themes, sub themes and salient quotes		
Major Themes	Subthemes	Salient Quotes
Enrollment	1. How enrolled	1. Speaker 1: Pt. 53 Question number one. How were you enrolled in the program? Speaker 2: I believe my physician enrolled me in it. Speaker 1: Had you heard about it before the referral? Speaker 2: Yes, I saw a couple of flyers pertaining to the program, and I did inquire with my physician about it.
	2. Motivation to join Program	1. Speaker 1: Pt. 69 Very nice. Very nice. What motivated you to complete the entire program? Speaker 2: I did not want to become and do not want to become a diabetic. It was basically self-motivation.  2. Interviewer: Pt. 78 What motivated you personally to complete the entire program? Interviewee: I was pre diabetic, and so I didn't want to get to the point where I needed to take medicine.
Attendance	1. Barriers to attendance	1. Speaker 1: Pt. 62 Do you recall how long you were enrolled in the program and how many sessions you attended? Speaker 2: I enrolled but I think I only did one or two sessions due to my work. 2. Speaker 1: Pt. 65 And did you have any barriers that kept you from attending a session? Speaker 2: Yes, my kid was sick. 3. Speaker 1: Pt. 93 Did you have any barriers that kept you from attending any sessions? And if so, how could we have overcome this barrier and help you attend sessions? Speaker 2: Work. I have a very busy job and the classes were on Fridays maybe in the afternoons, which was a good day, but I think if they had been held on a Saturday, or maybe Friday around lunch period. 4. Speaker 1: Pt. 55 And so, you stated that you didn't start the program. Can you answer some questions of why that might have been? What were some of the challenges that led you to that? Speaker 2: Because I got sick. I found out that I had cancer. 5. Speaker 1: Pt. 77 Did you have any barriers that kept you from attending these sessions? Speaker 2: I changed because it was a long ride.
		Positive Experience

Table 2. Major themes, subthemes and corresponding quotes



## DISCUSSION

- Participant demographic information demonstrates that 98.5% of the population are 18-79 years of age, which means many participants are still in the workforce. Weekly, hour-long classes in the middle of the workday, for a year, are not feasible commitments for everyone who does not have accommodating work environments.
- Some participants noted having personal health issues that hindered their attendance. It is important to still promote the option of online learning for attendance, check in on participants to see if positive health status has returned to continue to matriculate through DPP, and allow participants with serious health hindering diseases to withdraw and be able to rejoin another cohort.
- Some participants stated that the one-year commitment is needed for program success, but still is not an achievable commitment for them due to personal commitment issues.
- Some participants with young children stated that being unable to get a babysitter, having a sick child at home for the day, and school pick-up up times hindered them from full program completion.
- Limitations of this analysis include limited participant recall of experience as program enrollment dates up to 5 years ago, and 48% of non-completers completed an interview.

## CONCLUSION

- Notable barriers to DPP attendance include:
  - Time of Day
  - Work Conflicts
  - Person Health Problems/Caregiving for Family Members
- Suggestions for future cohorts:
  - Ask previous participants to come back and give Success Stories
  - Offer ECUP RDNs, LDNs, CDCES, MDs, and Endocrinologists as Guest Speakers
  - Provide Grocery Giveaways to jumpstart a participant's ability to make the changes
  - Offer DPP to Residential Communities
  - Provide Exercise Classes for physical activity discussions
  - Match program participants with one another from Day 1 to increase Accountability
- These suggested modifications will be reviewed and implemented into future DPP cohorts if feasible. ECUP may not be able to successfully meet CDC mandates for the DPP program and may need to explore other Health Service Organization (HSO) programming initiatives for pre-diabetes and other chronic disease prevention.

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