

Appendix 1: Research Instruments

Qualitative Interview Guide #1: The following questions will be asked at the beginning of the study period among all study participants

Opening questions of baseline feelings about self-monitoring. Adverse event frequency.

1. Can you explain to me in your own words what causes diabetes?
2. How long have you had diabetes (Which year were you diagnosed with diabetes)?
3. Can you describe what a typical day living with diabetes is like for you? Can you walk me through how you managed your diabetes yesterday? Was yesterday a typical day?
4. What proportion of your time goes to monitoring your blood glucose or managing your diabetes?
5. How do you feel about the amount of time you manage your diabetes?
6. Could you please describe your experience interacting with friends and family about managing your diabetes? Please tell me about the last time you discussed your diabetes with your family.
7. In general, how do you feel about your current control of your diabetes?

For the following questions (8-13), the interviewer should probe for general knowledge of the symptoms of high and low blood sugars, as well as any information regarding the frequency and strategies employed in managing these symptoms.

8. What are the symptoms of a high blood glucose level?
9. How often do you feel the symptoms of a high blood glucose? (e.g. thirst, frequent urination, dry mouth, blurry vision, upset stomach, vomiting, exhaustion)
10. When you feel a high blood glucose how do you get back into a healthy range?
11. What are the symptoms of a low blood glucose level?
12. How often do you feel the symptoms of a low blood glucose? (e.g. dizziness, disorientation, hunger, inability to speak or think clearly, cold sweats, fainting)
13. When you feel a low blood glucose how do you get back into a healthy range?

Self-Care Experience

14. Could you please describe your daily routine/activities/lifestyle? (*probe for information on diet and eating, work, exercise*)
15. How often do you check your blood sugar level? When do you check your blood sugar level throughout the day? Do you monitor your own blood sugar level or did you need help from a family member or other care giver? Who is this caregiver for you? (*probe for same person, or different? How big is their support network*)
16. How often and when do you inject insulin? Do you inject your own insulin or do you need from a family member or other care giver? Who is this caregiver for you? (*probe for same person, or different? How big is their support network*)

Health Care Experience

17. Could you please describe your experience interacting with providers about your diabetes? Tell me about your last visit. *(ie were you trained in any new skills? How long did you have to wait? Did the health care provider adjust your management in any new ways? Do you feel that your provider took your concerns into account?)*
18. How often do you see a health care provider to talk about your diabetes? *(this can include a community health worker, or a clinician at a community event or a consultation at a health facility)*
19. How does your health care provider use the logbook during consultation? Did using the logbook influence the treatment pattern you received from the health care provider?
20. How long are your visits with your care provider generally?
21. Have you ever been admitted to the hospital due to a diabetes related illnesses? What were you admitted for? Please can you discuss your experience? How long were you in hospital?

Closing

22. Is there anything else you would like to add/ask in regard to managing your diabetes?

Qualitative Interview Guide #1: The following questions will be asked at the beginning of the study period among all study participants

Opening questions of baseline feelings about self-monitoring. Adverse event frequency.

23. Can you explain to me in your own words what causes diabetes?
Ndimmene mumadziwira, mndifotokozere kuti chimayambitsa matenda a shuga ndi chiyani?
24. How long have you had diabetes (Which year were you diagnosed with diabetes)?
Mwakhala mukudwala shuga kwa nthawi yayitali bwanji (ndi chaka chiti chimene anakupezani ndi matenda a shuga?
25. Can you describe what a typical day living with diabetes is like for you? Can you walk me through how you managed your diabetes yesterday? Was yesterday a typical day?
Ndifotokozereni mmene mumakhalila ndi matenda a shuga tsiku ndi tsiku?
Mundifotokozere momveka bwino mmene munakwanitsira kusamalilira shuga yanu dzulo? Dzulo linali munga mmene mumakhalira masiku onse?
26. What proportion of your time goes to monitoring your blood glucose or managing your diabetes?
Ndi nthawi yambiri bwanji yomwe mumatenga kuziyeza mulingo wa shuga mmagazi anu kapena kusamalira shuga yanu?

27. How do you feel about the amount of time you manage your diabetes?
Mumamva bwanji pa kuchuluka kwa nthawi yomwe mumatenga kusamalira matenda anu a shuga?
28. Could you please describe your experience interacting with friends and family about managing your diabetes? Please tell me about the last time you discussed your diabetes with your family.
Ndifotokozereni kuti mumamva bwanji kukambirana ndi achibale komanso anzanu za mmene mumasamalira shuga yanu? Chonde ndifotokozereni za tsiku lomaliza lomwe munakambirana ndi achibale za shuga yanu?
29. In general, how do you feel about your current control of your diabetes?
Kodi mumamva bwanji zammene mumakwanitsira kusamalira shuga yanu?
For the following questions (8-13), the interviewer should probe for general knowledge of the symptoms of high and low blood sugars, as well as any information regarding the frequency and strategies employed in managing these symptoms.
30. What are the symptoms of a high blood glucose level?
Kodi zizindikiro za shuga yokwera ndi chani?
31. How often do you feel the symptoms of a high blood glucose? (e.g. thirst, frequent urination, dry mouth, blurry vision, upset stomach, vomiting, exhaustion)
Ndikwambiri bwanji pamene mumamva zizindikiro za shuga yokwera? (mwachitsanzo: ludzu, kukodza pafupi-pafupi, kuuma mkamwa, maso kusaona bwino, kutsegula mmimba, kusanza, kutopa)
32. When you feel a high blood glucose how do you get back into a healthy range?
Mukakhala kuti mwanva zizindikiro za shuga yokwera, mumapanga chani kuti mukhaleso bwinobwino?
33. What are the symptoms of a low blood glucose level?
Kodi zizindikiro za shuga yotsika ndi chani?
34. How often do you feel the symptoms of a low blood glucose? (e.g. dizziness, disorientation, hunger, inability to speak or think clearly, cold sweats, fainting)
Ndikwambiri bwanji pamene mumanva zizindikiro za shuga yotsika? (mwachitsanzo: chizungulire, njala, kuvutika kuyankhula kapena kuganiza bwinobwino, kusokonekera, kumva kuzizira ndikumatuluka thukuta, kukomoka)
35. When you feel a low blood glucose how do you get back into a healthy range? *Mukanva zizindikiro za shuga yotsika mthupi, mumachita chani kuti mukhaleso bwinobwino?*

Self-Care Experience

Zochitika mukamazisamalira

36. Could you please describe your daily routine/activities/lifestyle? (*probe for information on diet and eating, work, exercise*)
Tafotokozani zomwe mumachita tsiku ndi tsiku/zichito/ndi mmene mumakhalira p moyo wanu? (funsitsitsani za zakudya zopatsa thanzi ndi zakumwa, ntchito, masewero olimbitsa thupi)
37. How often do you check your blood sugar level? When do you check your blood sugar level throughout the day? Do you monitor your own blood sugar level or did you need help from a family member or other care giver? Who is this caregiver for you? (*probe for same person, or different? How big is their support network*)
Ndikwambiri bwanji pamene mumaziyeza mulingo wa shuga mthupi mwanu? Ndi nthawi zANJI zimene mumaziyeza shuga pa tsiku? Kodi mumaziyeza nokha mulingo wa shuga mthupi mwanu kapena munafuna chithandizo kwa wachibale kapena kwa wokusamalani wina aliyense? (funsitsitsani ngati ali munthu mmodzi yemweyo kapena anthu wosiyana? Anthu owasamalira/owathandizira ndi ambiri bwanji?)
38. How often and when do you inject insulin? Do you inject your own insulin or do you need from a family member or other care giver? Who is this caregiver for you? (*probe for same person, or different? How big is their support network*)
Ndi kwambiri bwanji ndipo ndiliti pamene mumazibaya jakiseni wa shuga/inshulini? Mumabaya nokha jakiseni kapena mumafuna akuthandizeni wa chibale kapena wokusamalani wina aliyense? Wopereka chisamliro chimenechi ndi ndani? (funsitsitsani ngati ali munthu yemweyo kapena wosiyana? Anthu owasamalira/owathandizira ndi ambiri bwanji?)

Health Care Experience

39. Could you please describe your experience interacting with providers about your diabetes? Tell me about your last visit. (*i.e were you trained in any new skills? How long did you have to wait? Did the health care provider adjust your management in any new ways? Do you feel that your provider took your concerns into account?*)
Fotokozani za mmene mumamvera mukamakambirana ndi anthu a chipatala za shuga yanu?
Ndifotokozereni za tsiku lomaliza lomwe munapita ku chipatala. (mwachitsanzo: munaphunzitsidwa upangili wina uliwonse wa chilendo? Munadikira kwa nthawi yayitali bwanji? Kodi wogwira ntchito ku chipatala anakuthandizilani kusintha chisamliro cha shuga yanu mu njira zachilendo zina zilizonse? Mukumva kuti wogwira ntchito ku chipatala anakuthandizani pa madandaulo omwe munali nawo?
40. How often do you see a health care provider to talk about your diabetes? (*this can include a community health worker, or a clinician at a community event or a consultation at a health facility*)

Ndikochuluka bwanji pamene mumakumana ndi wachipatala ndi kukambirana za shuga yanu? (akhoza kukhala wogwira ntchito za umoyo mmamidzi, kapena adokotala ku misonkhano ya mmudzi, kapena ku chipatala)

41. How does your health care provider use the logbook during consultation? Did using the logbook influence the treatment pattern you received from the health care provider?

Mukabwera kuchipatala kudzaonana ndi adokotala, amagwiritsa ntchito bwanji logbook? Kugwiritsa ntchito logbook kunapangitsa kusintha chithandizo chimene munalandira kuchokera kwa adokotala?

42. How long are your visits with your care provider generally?

Mwachidule, mumatenga nthawi yayitali bwanji ndi adokotala mukabwera kuchipatala?

43. Have you ever been admitted to the hospital due to a diabetes related illnesses? What were you admitted for? Please can you discuss your experience? How long were you in hospital?

Munayamba mwagonekedwapo mu chipatala chifukwa cha matenda okhudzana ndi shuga?

Anakugonekani chifukwa cha matenda anji? Mungandifotozere zomwe munakumana nazo? Munakhala nthawi yayitali bwanji mu chipatala?

Closing

44. Is there anything else you would like to add/ask in regard to managing your diabetes?

Pali china chilichonse chomwe mukufuna kuonjezera kapena kufunsa zokhudzana ndi chisamaliro cha dhuga yanu?

Qualitative Guide #2: The following questions will be asked at the end of the study period among participants who implemented SMBG

Opening questions of baseline feelings about self-monitoring. Adverse event frequency.

45. Can you explain to me in your own words what causes diabetes?
46. Can you describe what a typical day living with diabetes is like for you? Can you walk me through how you managed your diabetes yesterday? Was yesterday a typical day?
47. What proportion of your time goes to monitoring your blood glucose or managing your diabetes?
48. How do you feel about the amount of time you manage your diabetes?
49. Could you please describe your experience interacting with friends and family about managing your diabetes? Please tell me about the last time you discussed your diabetes with your family.
50. In general, how do you feel about your current control of your diabetes?

For the following questions (6-11), the interviewer should probe for general knowledge of the symptoms of high and low blood sugars, as well as any information regarding the frequency and strategies employed in managing these symptoms.

51. What are the symptoms of a high blood glucose level?
52. How often do you feel the symptoms of a high blood glucose? (e.g. thirst, frequent urination, dry mouth, blurry vision, upset stomach, vomiting, exhaustion)
53. When you feel a high blood glucose how do you get back into a healthy range?
54. What are the symptoms of a low blood glucose level?
55. How often do you feel the symptoms of a low blood glucose? (e.g. dizziness, disorientation, hunger, inability to speak or think clearly, cold sweats, fainting)
56. When you feel a low blood glucose how do you get back into a healthy range?

Use of glucometer

57. Describe your experience in using the glucometer.
 - a. What challenges did you have in reading or understanding the results?
 - b. How did the results influence your self-management?
 - c. What did you like best about using the glucometer? What did you like least?
58. Please can you give me an example of a time you had a challenge/problem with the glucometer?
 - a. How did you address the challenges?
 - b. What about the glucose meter makes it easy to use?
59. What would make using a glucose meter easier for you?
60. After performing SMBG how did you dispose of the lancets and swabs you used?

Impact on Self-Care

61. Did you change your care at all since starting this research program? How so? (*probe for changes in diet and eating, work, exercise*)
62. How often do you monitor your blood glucose levels? Is it the same time every day? Do you monitor your own blood glucose or do you need help from a family member or other care giver? Who is this caregiver for you? (*probe for same person, or different? How big is the support network*)
63. How often and when do you inject insulin? Do you inject your own insulin or do you need help from a family member or other caregiver? Who is this caregiver for you? (*probe for same person, or different? How big is their support network*)

Impact on health care experience

64. Could you please describe your experience interacting with providers about managing your diabetes? Tell me about your last visit. (*ie were you trained in any new skills? How long did you have to wait? Did the clinician adjust your management in any new ways?*)
65. How does your health care provider use the logbook/glucometer readings during consultation? In your opinion, did using the logbook/glucometer readings influence the treatment pattern you received from the health care provider?
66. Was there any change in the amount of time the care provider spent with you?
67. Were you admitted to the hospital due to diabetes related illnesses since you started this research program? What were you admitted for? Please can you discuss your experience? How long were you in hospital?

Impact of health education

68. What are the key lessons your learned during the health education sessions regarding your diabetes management? *Please include whether you made these decisions independently, or if these decisions were prescribed by your care provider.*
 - a. Any changes to your diabetes management after the health education session?
 - b. Any changes in your diet/eating behavior after the health education session?
 - c. Any change to your work schedule after the health education session?
 - d. Any change to your exercise routine after the health education session?
 - e. Any other changes to your daily routine after the health education session?
 - f. Anything else that should be included in future education sessions?
69. How did you apply the lessons to your personal management of your diabetes?
70. Is there anything else you would have liked to have learned at these education sessions?

Closing

71. Is there anything else you would like to add/ask in regard to SMBG?

Thank you so much for taking your time to talk with me today.

Qualitative Guide #2: The following questions will be asked at the end of the study period among participants who implemented SMBG

Opening questions of baseline feelings about self-monitoring. Adverse event frequency.

72. Can you explain to me in your own words what causes diabetes?

Ndifotokozereni ndimmene mumadziwira inuyo kuti chimayambitsa matenda a shuga ndi chani?

73. Can you describe what a typical day living with diabetes is like for you? Can you walk me through how you managed your diabetes yesterday? Was yesterday a typical day?

Ndifotokozereni mmene mumakhalila ndi matenda a shuga tsiku ndi tsiku?

Mungandifotokozere mwandondomeko mmene munakwanitsira kusamalilira shuga yanu dzulo? Dzulo linali monga mmene mumakhalira masiku onse?

74. What proportion of your time goes to monitoring your blood glucose or managing your diabetes?

Ndi nthawi yochuluka bwanji imene mumaika kuyang'anira mulingo wa shuga mmagazi anu kapena kusamalira shuga yanu?

75. How do you feel about the amount of time you manage your diabetes?

Mumamva bwanji pa kuchuluka kwa nthawi yomwe mumatenga kusamalira shuga yanu?

76. Could you please describe your experience interacting with friends and family about managing your diabetes? Please tell me about the last time you discussed your diabetes with your family.

Mungandifotokozere za zimene mwakumana nazo mukamakambirana ndi achibale komanso anzanu za chisamaliro cha shuga yanu? Chonde ndifotokozereni tsiku lomaliza lomwe munakambirana za shuga yanu ndi achibale.

77. In general, how do you feel about your current control of your diabetes?

Mwachidule, mukumva bwanji zammene mukukwanitsira kusamalira shuga yanu panopa?

For the following questions (6-11), the interviewer should probe for general knowledge of the symptoms of high and low blood sugars, as well as any information regarding the frequency and strategies employed in managing these symptoms.

78. What are the symptoms of a high blood glucose level?

Kodi zizindikiro za shuga yokwera ndi chani?

79. How often do you feel the symptoms of a high blood glucose? (e.g. thirst, frequent urination, dry mouth, blurry vision, upset stomach, vomiting, exhaustion)
Ndikwambiri bwanji pomwe mumamva zizindikiro za shuga yokwera? (mwachitsanzo: ludzu, kukodza pafupi-pafupi, mkamwa mouma, maso kupanga zilekwa, vuto la mmimba, kusanza, kutopa)
80. When you feel a high blood glucose how do you get back into a healthy range?
Mukakhala kuti mwanva zizindikiro za shuga yokwera, mumapanga chani kuti mukhaleso bwinobwino?
81. What are the symptoms of a low blood glucose level?
Kodi zizindikiro za shuga yotsika ndi chani?
82. How often do you feel the symptoms of a low blood glucose? (e.g. dizziness, disorientation, hunger, inability to speak or think clearly, cold sweats, fainting)
Ndikwambiri bwanji pomwe mumamva zizindikiro za shuga yotsika? (mwachitsanzo: chizungulire, kusokonezeka, njala, kuvutika kuyankhula kapena kuganiza, kutuluka thukuta chifukwa cha mantha, kukomoka)
83. When you feel a low blood glucose how do you get back into a healthy range?
Mukakhala kuti mwanva zizindikiro za shuga yotsika, mumapanga chani kuti mukhalenso bwinobwino?

Use of glucometer

84. Describe your experience in using the glucometer.
Fotokozani mmene mumanvera kugwiritasa ntchito koyezera shuga.
- What challenges did you have in reading or understanding the results?
Munali ndi mavuto anji powerenga kapena kumvetsetsa zotsatira?
 - How did the results influence your self-management?
Zotsatira zinasintha bwanji mmene mumazisamalira pa nokha?
 - What did you like best about using the glucometer? What did you like least?
Ndi chani chomwe chinakusangalatsani kwambiri kugwiritsa ntchito koyezera shuga? Ndi chani chomwe sichinakusangalatseni kweni kweni?
85. Please can you give me an example of a time you had a challenge/problem with the glucometer?
Chonde mungandipatse chitsanzo cha nthawi imene munali ndi vuto ndi koyezera shuga?
- How did you address the challenges?
munatani kuti muthetse mavutowa?
 - What about the glucose meter makes it easy to use?
Nanga koyezera shuga kanali kosavuta kugwiritsa ntchito?

86. What would make using a glucose meter easier for you?
Ndi chani chomwe chingapangitse kuti kugwiritsa ntchito koyezera shuga kusakhale kovuta kwa inu?
87. After performing SMBG how did you dispose of the lancets and swabs you used?
Mutamaliza kupanga SMBG/kuziyeza shuga, jakison ndi thonje lomwe munagwiritsa ntchito munataya bwanji? Impact on Self-Care
88. Did you change your care at all since starting this research program? How so? (*probe for changes in diet and eating, work, exercise*)
Chilowereni kafukufukuyu, munayamba mwasintha chisamaliro/chithandzio chanu? Chifukwa chani? (funsitsitsani za kusintha kwa chakudya ndi madyedwe, ntchito, masewero olimbitsa thupi)
89. How often do you monitor your blood glucose levels? Is it the same time every day? Do you monitor your own blood glucose or do you need help from a family member or other care giver? Who is this caregiver for you? (*probe for same person, or different? How big is the support network*)
Ndikwambiri bwanji pamene mumaziyeza mulingo wa shuga mthupi mwanu? Imakhala nthawi yomweyo tsiku lilironse? Kodi mumaziyeza nokha mulingo wa shuga mthupi mwanu kapena mumafuna chithandizo kwa wachibale kapena kwa wopereka chisamaliro wina aliyense? (funsitsitsani ngati anali munthu mmodzi yemweyo kapena anthu wosiyana? Anthu owasamalira/owathandizira ndi ambiri bwanji?)
90. How often and when do you inject insulin? Do you inject your own insulin or do you need help from a family member or other caregiver? Who is this caregiver for you? (*probe for same person, or different? How big is their support network*)
Ndi kwambiri bwanji ndipo ndiliti pamene mumazibaya jakiseni wa shuga/inshulini? Mumabaya nokha jakiseni kapena mumafuna kuthandizidwa ndi wachibale kapena wopereka chisamaliro ena? Wopereka chisamaliro chimenechi ndi ndani kwa inu? (funsitsitsani ngati ali munthu yemweyo kapena wosiyana? Anthu owasamalira/owathandizira ndi ambiri bwanji?)

Impact on health care experience

91. Could you please describe your experience interacting with providers about managing your diabetes? Tell me about your last visit. (*ie were you trained in any new skills? How long did you have to wait? Did the clinician adjust your management in any new ways?*)
Fotokozani mmene mumamvera mukamakambirana ndi anthu a chipatala za shuga yanu?
Ndifotokozereni za tsiku lomaliza lomwe munapita ku chipatala. (mwachitsanzo: munaphunzitsidwa luso lina lilironse la chilendo? Munadikira kwa nthawi yayitali bwanji? Kodi wogwira ntchito ku chipatala anakuthandizilani kusintha kwa chisamaliro mwachilendo? Mukumva kuti wogwira ntchito ku chipatala anakuthandizani pa madandaulo omwe munali nawo?)

92. How does your health care provider use the logbook/glucometer readings during consultation? In your opinion, did using the logbook/glucometer readings influence the treatment pattern you received from the health care provider?

Mukabwera kudzaonana ndi adokotala, amagwiritsa ntchito bwanji logbook/ zotsatira za koyezera shuga? Mukuganiza kwanu, mukuona kuti kugwiritsa ntchito logbook/ zotsatira za koyezera shuga, kunapangitsa kuti mulandire chithandizo chosiyana ndimmene mumalandilira kuchokera kwa wogwira ntchito ku chipatala?

93. Was there any change in the amount of time the care provider spent with you? *Kodi panali kusintha pa kuchuluka kwa nthawi yomwe mumatenga mukamakumana ndi dokotala?*

94. Were you admitted to the hospital due to diabetes related illnesses since you started this research program? What were you admitted for? Please can you discuss your experience?

How long were you in hospital?

Chilowereni kafukufukuyu, munayamba mwagonekedwapo mu chipatala chifukwa cha matenda okhudzana ndi shuga? Anakugonekani chifukwa cha matenda anji?

Mungandifotozere zomwe munakumana nazo? Munakhala nthawi yayitali bwanji mu chipatala?

Impact of health education

95. What are the key lessons you learned during the health education sessions regarding your diabetes management? *Please include whether you made these decisions independently, or if these decisions were prescribed by your care provider.*

Nthawi ya maphunziro a zaumoyo, Kodi ndi maphunziro ofunikira anji amene mudaphunzira wokhudzana ndi kasamalidwe ka shuga yanu? (chonde fotokozani ngati munapanga ziganizo zimenezi panokha, kapena ngati ziganizo zimenezi anakuuzani ndi adokotala)

- g. Any changes to your diabetes management after the health education session?
Mutapanaga maphunziro a zaumoyo, panali kusintha kulikonse pa ndondomeko ya chisamaliro cha shuga yanu?
- h. Any changes in your diet/eating behavior after the health education session?
Mutapanga maphunziro a zaumoyo, panali kusintha pa chakudya/madyedwe anu?
- i. Any change to your work schedule after the health education session?
Mutapanga maphunziro a zaumoyo, panali kusintha pa nthawi ya ntchito zanu?
- j. Any change to your exercise routine after the health education session?
Mutapanga maphunziro a zaumoyo, panali kusintha mmene mumapangira masewero olimbitsa thupi?

- k. Any other changes to your daily routine after the health education session?
Mutapanga maphuziro a zaumoyo, panali kusintha kwina kulikonse pa zomwe mumachita tsiku ndi tsiku
- l. Anything else that should be included in future education sessions?
Pali china chilichonse chofunika kuonjezera tikamazapanga maphunziro amenewa mtsogolomu?
96. How did you apply the lessons to your personal management of your diabetes?
Panokha, munagwiritsa ntchito bwanji zomwe munaphunzira pa chisamaliro cha shuga yanu?
97. Is there anything else you would have liked to have learned at these education sessions?
Pali china chilichonse chimene munakakonda mutaphunzira pa nthawi ya maphunziro a za umoyo?
- Closing*
98. Is there anything else you would like to add/ask in regard to SMBG?
Pali china chilichonse chimene mungakonde kuonjezera kapena kufunsa pa nkhani ya SMBG?
- Thank you so much for taking your time to talk with me today.*
Zikomo kwambiri potenga nthawi yanu kuyankhulana nane lero.

Qualitative Interview Guide #3: The following questions will be asked at the end of the study period among participants who implemented CGM

Introductory diabetes management questions

99. Can you explain to me in your own words what causes diabetes?
100. Can you describe what a typical day living with diabetes is like for you? Can you walk me through how you managed your diabetes yesterday? Was yesterday a typical day?
101. What proportion of your time goes to monitoring your blood glucose or managing your diabetes?
102. How do you feel about the amount of time you manage your diabetes?
103. Could you please describe your experience interacting with friends and family about managing your diabetes? Please tell me about the last time you discussed your diabetes with your family.
104. In general, how do you feel about your current control of your diabetes?

For the following questions (7-12), the interviewer should probe for general knowledge of the symptoms of high and low blood sugars, as well as any information regarding the frequency and strategies employed in managing these symptoms.

105. What are the symptoms of a high blood glucose level?
106. How often do you feel the symptoms of a high blood glucose? (e.g. thirst, frequent urination, dry mouth, blurry vision, upset stomach, vomiting, exhaustion) 107.
When you feel a high blood glucose how do you get back into a healthy range?
108. What are the symptoms of a low blood glucose level?
109. How often do you feel the symptoms of a low blood glucose? (e.g. dizziness, disorientation, hunger, inability to speak or think clearly, cold sweats, fainting)
110. When you feel a low blood glucose how do you get back into a healthy range?

Use of CGM

111. Describe your experience in using the CGM.
 - a. What challenges did you have in reading or understanding the results?
 - b. How did the CGM facilitate your self-management?
 - c. What do you like best about using the CGM? What did you like least?
112. Please can you give me an example of a time you had a challenge/problem with the CGM?
 - a. How did you address the challenges?
 - b. What about the CGM makes it easy to use?
113. What would make using the CGM easier for you?
114. After changing your sensor, how did you dispose of the waste?

Impact on Self-Care

115. Has starting with the CGM changed your daily routine/activities/lifestyle? If so, how?
(probe for changes in diet and eating, work, exercise)
116. How often did you check your CGM to see your blood sugar level? When did you check your CGM throughout the day? Do you monitor your own CGM or did you need help from a family member or other care giver? Who is this caregiver for you?
(probe for same person, or different? How big is their support network)
117. How often and when do you inject insulin? Do you inject your own insulin or do you need from a family member or other care giver? Who is this caregiver for you?
(probe for same person, or different? How big is their support network)

Impact on health care experience

118. Could you please describe your experience interacting with providers about managing your diabetes since starting with the CGM? Tell me about your last visit.
(ie were you trained in any new skills? How long did you have to wait? Did the clinician adjust your management in any new ways?)
119. How does your health care provider use the logbook/CGM readings during consultation? Did using the logbook/CGM readings influence the treatment pattern you received from the health care provider?

120. Was there any change in the amount of time the care provider spent with you since starting with the CGM?
121. Were you admitted to the hospital due to diabetes related illnesses since you started with the CGM? What were you admitted for? Please can you discuss your experience? How long were you in hospital?

Impact of health education

122. What are the key lessons you learned during the health education sessions regarding your diabetes management? *Please include whether you made these decisions independently, or if these decisions were prescribed by your care provider.*
 - m. Any changes to your diabetes management after the health education session?
 - n. Any changes in your diet/eating behavior after the health education session?
 - o. Any change to your work schedule after the health education session?
 - p. Any change to your exercise routine after the health education session?
 - q. Any other changes to your daily routine after the health education session?
 - r. Anything else that should be included in future education sessions?
123. How did you apply the lessons to your personal management of your diabetes?
124. Is there anything else you would have liked to have learned at these education sessions?

Closing

125. Is there anything else you would like to add/ask in regard to using a CGM?

Thank you so much for taking your time to talk with me today.

Qualitative Interview Guide #3: The following questions will be asked at the end of the study period among participants who implemented CGM

Introductory diabetes management questions

126. Can you explain to me in your own words what causes diabetes?
Ndifotokozereni ndimmene mumadziwira inuyo kuti chimayambitsa matenda a shuga ndi chani?
127. Can you describe what a typical day living with diabetes is like for you? Can you walk me through how you managed your diabetes yesterday? Was yesterday a typical day?
Ndifotokozereni mmene mumakhalila ndi matenda a shuga tsiku ndi tsiku?
Mungandifotokozere mwandondomeko mmene munakwanitsira kusamalilira shuga yanu dzulo? Dzulo linali monga mmene mumakhalira masiku onse?
128. What proportion of your time goes to monitoring your blood glucose or managing your diabetes?
Ndi nthawi yochuluka bwanji imene mumaika kuyang'anira mulingo wa shuga mmagazi anu kapena kusamalira shuga yanu?
129. How do you feel about the amount of time you manage your diabetes?
Mumamva bwanji pa kuchuluka kwa nthawi yomwe mumatenga kusamalira shuga yanu?
130. Could you please describe your experience interacting with friends and family about managing your diabetes? Please tell me about the last time you discussed your diabetes with your family.
Mungandifotokozere za zimene mwakumana nazo mukamakambirana ndi achibale komanso anzanu za chisamaliro cha shuga yanu? Chonde ndifotokozereni tsiku lomaliza lomwe munakambirana za shuga yanu ndi achibale.
131. In general, how do you feel about your current control of your diabetes?
Mwachidule, mukumva bwanji zammene mukukwanitsira kusamalira shuga yanu panopa?

For the following questions (7-12), the interviewer should probe for general knowledge of the symptoms of high and low blood sugars, as well as any information regarding the frequency and strategies employed in managing these symptoms.

132. What are the symptoms of a high blood glucose level? *Kodi zizindikiro za shuga yokwera ndi chani?*

133. How often do you feel the symptoms of a high blood glucose? (e.g. thirst, frequent urination, dry mouth, blurry vision, upset stomach, vomiting, exhaustion)
Ndikwambiri bwanji pomwe mumamva zizndikiro za shuga yokwera? (mwachitsanzo: ludzu, kukodza pafupi-pafupi, mkamwa mouma, maso kupanga zilekwa, vuto la mmimba, kusanza, kutopa)
134. When you feel a high blood glucose how do you get back into a healthy range?
Mukakhala kuti mwanva zizindikiro za shuga yokwera, mumapanga chani kuti mukhaleso bwinobwino?
135. What are the symptoms of a low blood glucose level? *Kodi zizndikiro za shuga yotsika ndi chani?*
136. How often do you feel the symptoms of a low blood glucose? (e.g. dizziness, disorientation, hunger, inability to speak or think clearly, cold sweats, fainting)
Ndikwambiri bwanji pomwe mumamva zizndikiro za shuga yotsika? (mwachitsanzo: chizungulire, kusokonezeka, njala, kuvutika kuyankhula kapena kuganiza, kutuluka thukuta chifukwa cha mantha, kukomoka)
137. When you feel a low blood glucose how do you get back into a healthy range?
Mukakhala kuti mwanva zizindikiro za shuga yotsika, mumapanga chani kuti mukhaleso bwinobwino?

Use of CGM

138. Describe your experience in using the CGM.
Fotokozani mmene mumanvera kugwiritsa ntchito koyezera shuga/CGM.
- What challenges did you have in reading or understanding the results?
Munali ndi mavuto anji powerenga kapena kumvetsetsa zotsatira?
 - How did the CGM facilitate your self-management?
Kodi CGM inathandizila bwanji mmene mumazisamalira pa nokha?
 - What do you like best about using the CGM? What did you like least?
Ndi chani chomwe chinakusangalatsani kwambiri kugwiritsa ntchito CGM? Ndi chani chomwe simunachikondetsetse?
139. Please can you give me an example of a time you had a challenge/problem with the CGM?
Chonde mungandipatse chitsanzo cha nthawi imene munali ndi vuto ndi koyezera shuga?
- How did you address the challenges? *munatani kuti muthetse mavutowa?*

- b. What about the CGM makes it easy to use?
Nanga CGM inali yosavuta kugwiritsa ntchito?

140. What would make using the CGM easier for you?
Ndi chani chomwe chingapangitse kuti kugwiritsa ntchito CGM kusakhale kovuta kwa inu?
141. After changing your sensor, how did you dispose of the waste?
Mutasintha sensor yanu, munataya bwanji zomwe munagwiritsa ntchito?
Impact on Self-Care
142. Has starting with the CGM changed your daily routine/activities/lifestyle? If so, how?
(probe for changes in diet and eating, work, exercise)
Kodi kupanga nawo za CGM, kwapanagitsa kuti musinthe mmene mumakhalira tsiku ndi tsiku/zichito/chikhwaliidwe chanu? Ngati eya, zasintha bwanji? (funsitsitsani za kusintha kwa chakudya ndi madyedwe, ntchito, masewero olimbitsa thupi)
143. How often did you check your CGM to see your blood sugar level? When did you check your CGM throughout the day? Do you monitor your own CGM or did you need help from a family member or other care giver? Who is this caregiver for you?
(probe for same person, or different? How big is their support network)
Ndi nthawi yambiri bwanji pamene mumayang'ana CGM yanu kuti muone mulingo wa shuga mthupi mwanu? Kodi ndi nthawi iti pamene mumayang'ana CGM yanu tsiku lonse? Kodi mumayang'anira CGM yanu nokha kapena mumafuna kuthandizidwa ndi wachibale kapena wina aliyense wokusamalilani? Wopereka chithandizo/chisamaliro ameneyu ndi ndani kwa inu? (funsitsitsani ngati ali munthu mmodzi yemweyo kapena wosiyana? Ndi anthu ambiri bwanji amene amawathandizira?)
144. How often and when do you inject insulin? Do you inject your own insulin or do you need from a family member or other care giver? Who is this caregiver for you?
(probe for same person, or different? How big is their support network)
Ndi kwambiri bwanji ndipo ndiliti pamene mumazibaya jakiseni wa shuga/inshulini? Mumabaya nokha jakiseni kapena mumafuna kuthandizidwa ndi wachibale kapena wopereka chisamaliro ena? Wopereka chisamaliro chimenechi ndi ndani kwa inu? (funsitsitsani ngati ali munthu yemweyo kapena wosiyana? Anthu owasamalira/owathandizira ndi ambiri bwanji?)

Impact on health care experience

145. Could you please describe your experience interacting with providers about managing your diabetes since starting with the CGM? Tell me about your last visit.
(ie were you trained in any new skills? How long did you have to wait? Did the clinician adjust your management in any new ways?)
Chiyambireni CGM, ndifotokozereni mmene mumamvera mukamakambirana ndi anthu a chipatala za shuga yanu? Ndifotokozereni za tsiku lomaliza lomwe munapita ku

chipatala. (mwachitsanzo: munaphunzitsidwa luso lina lililonse la chilendo? Munadikila kwa nthawi yayitali bwanji? Kodi adokotala anakuthandizilani kusintha chisamaliro/chithandizo chanu mwachilendo?

146. How does your health care provider use the logbook/CGM readings during consultation? Did using the logbook/CGM readings influence the treatment pattern you received from the health care provider?

Mukabwera kudzaonana ndi adokotala, amagwiritsa ntchito bwanji logbook/ zotsatira za CGM? Mumukuona kuti kugwiritsa ntchito logbook/ zotsatira za CGM, zinapangitsa kuti mulandire chithandizo chosiyana ndimmene mumalandilira kuchokera kwa wogwira ntchito ku chipatala?

147. Was there any change in the amount of time the care provider spent with you since starting with the CGM?

Kodi panali kusintha pa kuchuluka kwa nthawi yomwe mumatenga mukamakumana ndi dokotala chiloweleni mu pologalamu ya CGM?

148. Were you admitted to the hospital due to diabetes related illnesses since you started with the CGM? What were you admitted for? Please can you discuss your experience? How long were you in hospital?

Chilowereni mu CGM,, munayamba mwagonekedwapo mu chipatala chifukwa cha matenda okhudzana ndi shuga? Anakugonekani chifukwa cha matenda anji? Mungandifotozere zomwe munakumana nazo? Munakhala nthawi yayitali bwanji mu chipatala?

Impact of health education

149. What are the key lessons you learned during the health education sessions regarding your diabetes management?

Nthawi ya maphunziro a zaumoyo, Kodi ndi maphunziro ofunikira anji amene mudaphunzira wokhudzana ndi kasamalidwe ka shuga yanu?

Please include whether you made these decisions independently, or if these decisions were prescribed by your care provider.

(chonde fotokozani ngati munapanga ziganizo zimenezi panokha, kapena ngati ziganizo zimenezi anakuuzani ndi adokotala)

- s. Any changes to your diabetes management after the health education session?
Mutapanaga maphunziro a zaumoyo, panali kusintha kulikonse pa ndondomeko ya chisamaliro cha shuga yanu?
- t. Any changes in your diet/eating behavior after the health education session?
Mutapanga maphunziro a zaumoyo, panali kusintha pa chakudya/madyedwe anu?

- u. Any change to your work schedule after the health education session?
Mutapanga maphunziro a zaumoyo, panali kusintha pa nthawi ya ntchito zanu?
 - v. Any change to your exercise routine after the health education session?
Mutapanga maphunziro a zaumoyo, panali kusintha mmene mumapangira masewero olimbitsa thupi?
 - w. Any other changes to your daily routine after the health education session?
Mutapanga maphunziro a zaumoyo, panali kusintha kwina kulikonse pa zomwe mumachita tsiku ndi tsiku
 - x. Anything else that should be included in future education sessions?
Pali china chilichonse chofunika kuonjezera tikamazapanga maphunziro amenewa mtsogolomu?
150. How did you apply the lessons to your personal management of your diabetes?
Munagwiritsa bwanji ntchito pa chisamaliro cha shuga yanu pa zomwe munaphunzira ?
151. Is there anything else you would have liked to have learned at these education sessions? *Pali china chilichonse chimene munakakonda mutaphunzira pa nthawi ya maphunziro a za umoyo?*

Closing

152. Is there anything else you would like to add/ask in regard to using a CGM?
Pali china chilichonse chimene mungakonde kuonjezera kapena kufunsa pa nkhani yogwiritsa ntchito CGM?

Thank you so much for taking your time to talk with me today.

Zikomo kwambiri potenga nthawi yanu kuyankhulana nane lero.

Qualitative Interview Guide #4: The following questions will be asked at the end of the study period among participating health care providers who implemented either SMBG or CGM.

Introduction

Openers

Focus 1: Clinicians perception towards patients experience with SMBG/CGM

Focus 2: Clinicians perceptions towards own-experience with SMBG/CGM

Focus 3: Recommendation

Closers

Openers

1. How long have you been managing patients diagnosed with type one diabetes?

2. Before the start of this project, how did you monitor the patients' blood glucose levels (*if blood tests, how often were patients ask to measure their blood sugar on average?*)

Focus 1: Clinicians perception towards patient's experience with SMBG/CGM

3. What did your patient report to you about their experience conducting the SMBG/CGM?
4. What was their experience with using the glucose meter/CGM? (*ease of operation, reading results, did they find it useful?*)
5. Did they report any challenges while using the glucose meter/CGM? *Please explain, if yes, how did they deal with the challenges?*
6. What facilitated their experience with the SMBG/CGM process?
7. Did the patients discuss how they handled the waste disposal strategy when doing SMBG? *Can you give me an example? Please explain any difficulties experienced.*
8. Did the patients discuss how they handled the waste disposal strategy when using a CGM? *Can you give me an example? Please explain any difficulties experienced.*
9. Did you notice any differences in the frequency or severity of adverse events, or the amount of time the patients were in range between the SMBG and CGM groups? *If so, please explain these.*
10. Were the patients ever surprised by the results they saw while doing SMBG?
 - a. *If yes, how did they react to the results (first mode of action)?*
11. Were the patients ever surprised by the results they saw while using a CGM?
 - a. *If yes, how did they react to the results (first mode of action)?*

Focus 2: Clinicians perceptions towards self-monitoring of blood glucose versus CGM

12. What is your preferred method for self-monitoring blood glucose levels for insulindependent patients? Home glucometer or CGM?
13. In general, what has been your experience with SMBG/CGM among the patients with diabetes managed at your clinic? *Probe;*
14. How useful was either blood glucose monitoring process? (SMBG and CGM)
15. Did you (health care provider) use the glucose meter/CGM/log book readings during routine patient's consultations (why or why not)?
16. How did the practice of SMBG influence how you managed diabetes patients under your care?
17. How did the practice of using CGM influence how you managed diabetes patients under your care?
18. What aspects did you like most about the SMBG, please explain? What aspects did you like least?
19. What may encourage clinicians to embrace and advocate for SMBG practices among insulin dependent patients in Malawi?
20. What may discourage clinicians to embrace/advocate for SMBG for insulin dependent patients in Malawi?

21. What aspects did you like most about the CGM, please explain? What aspects did you like least?
22. What may encourage clinicians to embrace and advocate for CGM practices among insulin dependent patients in Malawi?
23. What may discourage clinicians to embrace/advocate for CGM for insulin dependent patients in Malawi?

Recommendation for action

24. What would help improve self-monitoring of blood glucose for insulin dependent diabetes patients living in Neno, Malawi?
25. What are the barriers to self-monitoring of blood glucose for insulin dependent diabetes patients?

Closing interview

26. Do you have any questions/ do you have anything else you would like to add in regard to the SMBG/CGM?

Thank you very much for taking your time to speak with me today.

Qualitative Interview Guide #4: The following questions will be asked at the end of the study period among participating health care providers who implemented either SMBG or CGM.

Introduction

Openers

Focus 1: Clinicians perception towards patients experience with SMBG/CGM

Focus 2: Clinicians perceptions towards own-experience with SMBG/CGM

Focus 3: Recommendation

Closers

Gift phambala

Openers

1. How long have you been managing patients diagnosed with type one diabetes?
Mwakhala nthawi yaitali bwanji mukuthandiza anthu amene ali ndi matenda a shuga?
2. Before the start of this project, how did you monitor the patients' blood glucose levels (if blood tests, how often were patients ask to measure their blood sugar on average?)
Kafukufukuyu asanabwere, mumayang'anira bwanji mulingo wa shuga wa wodwala anu? (ngati mumayeza magari, mongoyerekeza, ndikwambiri bwanji pamene wodwala amafunsidwa kuti ayezetse shuga?)

Focus 1: Clinicians perception towards patient's experience with SMBG/CGM

3. What did your patient report to you about their experience conducting the SMBG/CGM? *Wodwala anu anakuuzani chani za kugwiritsa ntchito SMBG/CGM?*
4. What was their experience with using the glucose meter/CGM? *(ease of operation, reading results, did they find it useful?)*
Ananena kuti anakumana ndizotani pogwiritsa ntchito koyezera shuga/CGM?
(kugwiritsa ntchito ngati kunali kophweka, kuwerenga zotsatira, anaona kuti ndikothandiza?)
5. Did they report any challenges while using the glucose meter/CGM? *Please explain, if yes, how did they deal with the challenges?*
Anafotokozapo za mavuto ena aliwonse pamene anali kugwiritsa ntchito koyezera shuga/CGM? Chonde fotokozani, ngati eya, anathana nawo bwanji mavuto amenewa?
6. What facilitated their experience with the SMBG/CGM process?
Ndi chani chomwe chinawathandizila kugwiritsa ntchito ndondomeko ya SMBG/CGM?
7. Did the patients discuss how they handled the waste disposal strategy when doing SMBG? *Can you give me an example? Please explain any difficulties experienced.*
Odwala anafotokozapo ndondomeko yotaya zomwe agwiritsa ntchito popanga SMBG? Mungandipitse chitsanzo? Chonde fotokozani za mavuto ena aliwonse amene anakumana nawo.
8. Did the patients discuss how they handled the waste disposal strategy when using a CGM? *Can you give me an example? Please explain any difficulties experienced.*
Odwala anafotokozapo ndondomeko yotaya zomwe agwiritsa ntchito popanga CGM? Mungandipitse chitsanzo? Chonde fotokozani za mavuto ena aliwonse amene adakumana nawo.
9. Did you notice any differences in the frequency or severity of adverse events, or the amount of time the patients were in range between the SMBG and CGM groups? *If so, please explain these.*
Kodi munaona kusiyana kwina kulikonse pakati pa SMBG ndi CGM pa kuchuluka kapena kusalekelera kwa zotsatira zoipa kapena kuchuluka kwa nthawi yomwe wodwala amapezako bwino? Ngati eya, chonde fotokozani
10. Were the patients ever surprised by the results they saw while doing SMBG?
Kodi wodwala amadabwitsika ndi zotsatira zomwe amaona akamapanga SMBG?
 - a. *If yes, how did they react to the results (first mode of action)?*
Ngati eya, akaona zotsatira amati chani kapena amatani (akangoona kumene zotsatira amatani)?

11. Were the patients ever surprised by the results they saw while using a CGM? *Kodi odwala amadabwitsika ndi zotsatira zawo akamagwiritsa ntchito CGM?*
- a. *If yes, how did they react to the results (first mode of action)?*
Ngati eya, amati chani kapena amatani akaona zotsatira (choyambilira chomwe amachita akangoona zotsatira)?

Focus 2: Clinicians perceptions towards self-monitoring of blood glucose versus CGM

12. What is your preferred method for self-monitoring blood glucose levels for insulindependent patients? Home glucometer or CGM?
Inuyo mungafune njira iti yoziyang'anira mulingo wa shuga mmagazi kwa odwala amene amadalira inshulin kapena jakiseni wa shuga? chooyezera shuga kunyumba kapena CGM?
13. In general, what has been your experience with SMBG/CGM among the patients with diabetes managed at your clinic? Probe;
Mwachidule, munganene chani za SMBG/CGM pakati pa wodwala shuga amene mumawathandiza ku chipatala kwanu?
14. How useful was either blood glucose monitoring process? (SMBG and CGM)
Kodi ndondomeko yoyang'anira/kuyezera shuga inali yothandiza bwanji? (SMBG/CGM)
15. Did you (health care provider) use the glucose meter/CGM/log book readings during routine patient's consultations (why or why not)?
Kodi inuyo (ngati wachipatala) mumagwiritsa ntchito choyezera shuga/CGM/zolembedwa mu log book nthawi yomwe mukuonana ndi wodwala (chifukwa chani mumagwiritsa ntchito kapena chifukwa chani simunagwiritse ntchito)?
16. How did the practice of SMBG influence how you managed diabetes patients under your care?
Kodi kugwiritsa ntchito ndondomeko ya SMBG, kwakuthandizilani bwanji kuti mukwanitse kuthandiza wodwala anu ashuga?
17. How did the practice of using CGM influence how you managed diabetes patients under your care?
Kodi kugwiritsa ntchito ndondomeko ya CGM, kwakuthandizilani bwanji kuti mukwanitse kuthandiza odwala anu a shuga?
18. What aspects did you like most about the SMBG, please explain? What aspects did you like least?
Ndi mbali ziti zomwe inuyo munakonda za SMBG, chonde fotokozani? Ndipo ndi mbali ziti zomwe simunakonde kweni kweni?

19. What may encourage clinicians to embrace and advocate for SMBG practices among insulin dependent patients in Malawi?

Kodi ndi chiyani chimene chingalimbikitse madokotala kugwiritsa ntchito ndondomeko ya SMBG kwa wodwala amene amadalira inshulin kapena jakiseni wa shuga?

20. What may discourage clinicians to embrace/advocate for SMBG for insulin dependent patients in Malawi?

Ndi chani chomwe chingafooketse madokotala kugwiritsa ntchito kapena kuvomereza SMBG kwa wodwala shuga amene amadalira kubaya jakiseni ku Malawi?

21. What aspects did you like most about the CGM, please explain? What aspects did you like least?

Ndi mbali ziti zomwe inuyo munakonda za CGM, chonde fotokozani? Ndi mbali ziti zimene simnuakonde kweni kweni?

22. What may encourage clinicians to embrace and advocate for CGM practices among insulin dependent patients in Malawi?

Kodi ndi chiyani chimene chingalimbikitse madokotala kugwiritsa ntchito ndondomeko ya CGM kwa wodwala amene amadalira inshulin kapena jakiseni wa shuga ku Malawi?

23. What may discourage clinicians to embrace/advocate for CGM for insulin dependent patients in Malawi?

Ndi chani chomwe chingafooketse madokotala kugwiritsa ntchito kapena kuvomereza SMBG kwa wodwala shuga amene amadalira kubaya jakiseni wa shuga kapena inshulini ku Malawi?

Recommendation for action

24. What would help improve self-monitoring of blood glucose for insulin dependent diabetes patients living in Neno, Malawi?

Ndi chani chimene chingapititse patsogolo SMBG kwa odwala amene amadalira jakiseni wa shuga kuno nu Neno, Malawi?

25. What are the barriers to self-monitoring of blood glucose for insulin dependent diabetes patients?

Ndi chani chomwe chingabwezeretse mmbuyo ndondomeko ya SMBG kwa odwala amene amadalira kubaya jakiseni wa shuga?

Closing interview

26. Do you have any questions/ do you have anything else you would like to add in regard to the SMBG/CGM?

Kodi pali mafunso ena aliwonse/pali china chilichonse chomwe mungafune kuonjezera chokhudzana ndi SMBG/CGM?

Thank you very much for taking your time to speak with me today.

Zikomo kwambiri chifukwa cha nthawi yomwe munalora kuti ticheze lero.