

*Department of Public Health, Health Promotion and Policy Research Unit
University of Otago, Wellington
New Zealand*

Diabetes Cam: An Objective Methodology to Study Diabetes Self-Management in Fiji

Research Protocol



Bako Keresi R, Mohammadnezhad M, Sika-Paotonu D, D'Souza A, Signal L.

Table of Contents

Headings	Page number
Research overview	3
Referral form/ Invitation script	4
Meeting with Participants	5
Second meeting with the participants	6
Third meeting with participants	7
Ethical Considerations	8
Briefing sessions	9
Review of photos	10
Workplace data collection protocol	8
Qualitative interview	9
Protocol for review of photos.	10
Data collection timeline	11
Sessions and planned activities	12
Conduction qualitative interviews	13
Instrument for Data Collection/ Instruction Booklet	14
The Camera	17
Project information card	19
Interview Questionnaires	20
Participant Information Sheet	24
Participant Consent form	26
References	42

Research overview

The prevalence of Type 2 Diabetes Mellitus (T2DM) is rapidly increasing throughout the world. T2DM is primarily a self-managed disease, yet clinical studies indicate that a large proportion of adults with T2DM struggle to self-manage their diabetes. This puts them at high risk of developing diabetes-related complications¹ and adverse patient well-being or quality of life outcomes. Effective methods to support and enhance diabetes self-management are therefore warranted, given the importance and potential for enhancing diabetes self-management and patient outcomes².

This document sets out the research protocol and pro forma documents for Diabetes Cam, a new methodology to objectively study T2DM self-management and identify the barriers to and facilitators of optimal self-care. This protocol was developed to outline the methodology used and how the data was managed and analysed to explore the experiences and challenges of those living with diabetes and determine the barriers that affect self-management. For detailed methods, see: An Objective Methodology to Study Diabetes Self-Management³.

Citation: Bako KR, Mohammadnezhad M, Sika-Paotonu D, D'Souza A, Signal L. Diabetes Cam: Footcare self-management and the impact of diabetes foot amputations - Coding Protocol. Health Promotion Policy and Research Unit, University of Otago, Wellington, New Zealand

Referral Form

Patient Name: Ms/Miss/Mr/Mrs

First Name Surname

Contact Details:

Home phone: _____

Work phone: _____

Cell phone: _____

E-mail: _____

Preferred method of contact: _____

Preferred time of contact: _____

Special considerations, e.g., disabilities, hearing difficulties, Other: _____

Eligibility for study:

- Confirmed Type 2 Diabetes for > 2 years
- Age >18 years
- Belong to the I-Taukei ethnic groups

Language of participation: whichever the patient feels most in comfortable in, I-Taukei or able to participate in English for communication and interview _____

Verbally consented to be contacted by researchers

Date: _____

Referred by: _____

Invitation Script

Bula Vinaka,

Name of person _____ You have been identified by _____

as eligible for some research that's happening. The research is looking at what it is like to live with Type 2 Diabetes and what difficulties you face daily in trying to manage your diabetes. We were wondering if you might be interested in participating or learning more about this research. I am Keresi Rokorua, a PhD student (ID: 3153547) at the University of

Otago, Wellington, New Zealand. I will conduct this research to fulfil the Doctor of Philosophy course in Public Health. I will be contacting you soon to find out if you are interested.

With many thanks
Keresi

Meeting with Participants: Pro forma scripts for the researcher

1. Pre-briefing session - First meeting with the participants

Introduce self: Keresi Rokorua, Student Researcher, University of Otago, Wellington.

Thank you for showing some interest in our Type 2 Diabetes study.

Please read the information sheet and consent form.

Do you have any questions about the study?

You will be given some time to read and decide to participate in the study.

Explain today's session

In today's session we are going to:

- Talk about what the study involves and answer any questions you have
- Teach you how to use and handle the camera and show you some examples of the photos the camera takes.

If you still want to take part, at the end of this session I will provide you with the information sheet and the consent forms.

If you agree to participate, you must inform the people you live with that you will be wearing the camera for four days.

At the end of wearing the camera, you will be asked to answer some questions about yourself, your general health, diabetes, and how you felt wearing the camera.

Reminder

It is completely up to you whether you take part in this study, and if you decide not to do so, this will not affect your diabetes care. You can also withdraw from the study without giving us a reason until the data is analysed; in this situation, please contact a research team member and let us know.

Explain the study

We are interested in finding out more about what it is like to live with diabetes in Fiji and how people face and manage their diabetes with all the other things they do in their everyday living. Therefore, we are interested in what you see and do and where you go throughout your day – even if you think what you do is a bit boring or uninteresting. So, to do this, we are going to ask you to wear a camera for four days, two weekdays and two weekends on Thursday, Friday, Saturday, and Sunday. [The researcher wear the camera to demonstrate].

After today, I will also meet with you three more times over seven days and confirm the next appointments and visits.

2. Second meeting with the participants

Consent form

- Need to ensure that the consent form is signed
- Remind participants that they must inform the people they live with that they will be wearing the camera for four days
- Collect consent forms
- Inform again the protocol of the study together with timelines
- Advise participants on how to operate and handle the cameras.

Instructions On How To Use The Equipment

[Show sample of Autographer data]

This is the sort of image the Autographer collects. As you can see, the Autographer will take pictures of everything and everyone around you while you are wearing it.

- Ask the patient to take out the camera and leave the box on the floor.
- Open the instruction book and go through each point with the participant
- Discuss ethical issues - Refer to the ethical section

Autographer

- Sensors – temperature, movement, light, and colour
- Go through the booklet instructions
- Explain privacy dial

- Ask the patient to put on the Autographer – clip it around the neck to keep it safe and stop it from moving around
- The Autographer needs to be worn on top of your clothing so that we can see what you see
- Change the Autographer at lunchtime – battery lasts for 6 to 7 hours. You will be given 2 Autographer.
- Go through the booklet instructions – Refer to the booklet instructions
- Show the rest of the kit – chargers and plug board – how to recharge
- Answer any questions.

Wearing a camera at work

If you are working and you are happy to wear the camera at work, we will need to get permission from your employer. To help you with this, we will provide you with an information sheet, a consent form for your employer, and information cards to give to the people you work with.

We can also arrange a time to meet with your employer to discuss the study in more detail.

3. Third meeting with participants

Review of photos

- Arrange a time and place for the visit to collect equipment and download photos
- Ask the patient to look through their pictures and delete any that they don't want us to see
- I will download the images onto my laptop, and it should take about 20-30 minutes to complete. At this stage, I will not look at the images once they have been downloaded.

(while the participants are waiting to review photos, provide snacks upon waiting)

- You will be able to look at your pictures and delete any that you do not want us to see.
- I will measure your height and weight (with your permission)
- After viewing the photos, I will conduct interviews to talk about your photos of living with diabetes. I have some questions we can discuss concerning your daily activities living with the disease, if any time the camera was turned off, and how you found taking part in this study

- Take measurements for height and weight
- All the cameras will be collected the following day. The photos will be downloaded onto the password-protected laptop, and the photos will be deleted from the camera.

Privacy issues

In this study, it is important that we protect your privacy and the privacy of anyone who appears in your photos.

We do this in lots of ways, such as:

- Giving you the opportunity to look at your photos before we see them so that you can delete any images you don't want us to see
- Storing your photos and any other information about you on a password-protected laptop or secure server
- Only letting members of the research team see your pictures or other personal information
- Blurring out an identifiable feature of people or places included in photos if they are included in any reports or publications
- Keeping your participation in the study confidential

Dealing with attention

The Autographer is noticeable, and you will probably be asked about it. Most people will likely be fine, but if you are asked any questions, we recommend that you say: "I am part of a study run by the University of Otago that is looking at my environment. I am wearing a camera that takes a picture every 7 seconds. The camera is not deliberately taking pictures of individual people or places".

If you have any problems, please offer to turn off the camera and provide the person with an information card with our contact details.

Explain: We also have an information card; you can give it to anyone with more questions.

Hand out

Explain: I will give you the project instruction booklet, which we will go through in detail. I am also giving you some project information cards for anyone who wants to know more

about the study and some reminder cards of the places and times when you should turn off or remove the camera.

Ethical Considerations

Explain: We want you to wear the Autographer during your normal daily activities. We don't want you to change anything you do during the day; go about your day as you normally would if you were not wearing the camera, even if you think what you are doing is uninteresting.

Although it is legal to take photos in public places without getting permission, there are some places where you should turn off or take off the camera, which we will go through now. Don't worry if you forget, as you will be able to delete any photos you don't want us to see before we get to see them.

Reminder texts or phone calls

- To help you remember when to change the Autographer and to remind you to charge them on the first night, we will send you reminder texts or phone calls at the beginning, middle and end of your day. [Confirm what time the participant would like to be contacted]
- We will also send you a reminder text the day before each meeting with the researchers
- Arrange time to collect the cameras and conduct the interview
- Make sure the participant knows how to contact the researchers

Workplace

Participants should be asked whether they would be willing to wear the camera at their workplace. If they are, information sheets and consent forms should be provided for the participant to give to their employer.

Arrange a time to follow up on progress with the participant. If required, arrange an appointment with the workplace to discuss the study, show examples of photos, and outline how data will be kept private and protected.

Workplace data collection protocol

- Participants are to receive two cameras and the chargers

- Wear one camera on the way to work and at work until lunchtime. The camera should then be removed and stored securely (e.g., in the manager's office or participant's zipped-up bag)
- The second camera should be put on at lunchtime and worn until the end of the day. This camera should then be removed and stored securely (e.g., in the manager's office or participant's zipped-up bag).

After Reviewing Photos

4. Conduct qualitative interviews

- Complete demographic questionnaire (Fill in the questionnaire with participants)
- Use the interview guide
- An additional visit for those who are working to confirm a workplace consent form is signed and that the employer is happy to proceed

Introduction to interview

- Greetings and introduce yourself
- Gauge the appropriateness of proceeding with the interview – the environment is safe and acceptable to conduct the interview. Confirm participant is ready at this stage for the interview.
- Check the timeframe available (i.e., when does the participant need to leave)
- Outline the process of the interview
- Recording of interviews and anonymization of data
- Let the participant know they have a right to not answer any questions they don't want to answer and they have a right to end the interview at any time.

Ask the patient if they would like to proceed

- Hand out the interview question-answer sheets
- Briefly introduce the research
- Look through the images sequentially while allowing the participants to discuss what was happening while the images were being captured, using the semi-structured questionnaire to guide the discussion

- Record in writing answers with answer sheets; the participants can write, if they feel like or the researcher can write while the participants answer questions and engage in discussion.

End of interview

- Thank the participant for participating in the research
- Remind them that they can change their mind about participating
- Ask if they would like a copy of the findings of this study and, if so, how they would like to receive it, e.g., e-mail, hard copy.

5. General study timeline

Data collection for each participant will take place over an 8-10-day period. However, for those participants who require consent from their employer, there may be a delay between the briefing session and data collection.

Table 1: Study timeline

Day	Session Description
	<p>Pre- interview Patient's GP informed of participation in research The clinic nurse informed of participation in research HbA1c levels obtained from participants medical records</p>
Wednesday	<p>Briefing session with participants to discuss the study procedure and camera handling Inform the participant about the study process and answer any questions Collect all signed consent forms and remind the participants about using equipment Explain clearly all the processes that will take place during the study process Demonstrate and role-play how to use the camera advice on battery lifespans when it is time to change the camera Remind the participants that you (researcher) will send reminder messages via text. Distribute the camera Confirm the venue for the review of photos and the photo elicitation interview</p> <p>Equipment required 2 x Autographer cameras to each participant 2 x chargers each 1 x 2-pin plugboard</p>
Thursday	<p>The first day participants will wear the camera Send reminder message At start of morning to wear the camera At middle of the day to change the camera End of your day to charge both the cameras</p>
Friday	<p>The second day for the participant to wear the camera Send reminder message At start of morning to wear the camera At middle of the day to change the camera End of your day to charge both the cameras</p>
Saturday	<p>Third day for participant to wear the camera – first weekend day Send reminder message At start of morning to wear the camera At middle of the day to change the camera End of your day to charge both the cameras</p>
Sunday	<p>Fourth day for participant to wear the camera – second weekend day Send reminder message At start of morning to wear the camera At middle of the day to change the camera End of your day to charge both the cameras</p>
Monday of Week 2	<p>Collect the camera and download photos but do not look at these Participant review and deletion of photos Conduct photo elicitation interviews while viewing the photos with semi structured questions to guide the interviews Measure height and weight</p> <p>Equipment required Laptop (with example Autographer photos (downloaded)) Camera download cable Scales and Stadiometer Recorder and chargers Questionnaires Interview schedules Interview answer sheet</p>
	<p>Post interview Any diabetes management problems identified or related health issues noted were referred to GP</p>

6. Protocol for review of photos

- Open the participant's images for them to review and show them how to delete, move through the images, etc.
 - Open the Diabetes Cam app on the computer Desktop
 - Right click on Diabetes Cam icon on bottom right taskbar or if not visible on taskbar, left click on up-arrow first
 - Select 'Review local Autographer data'
 - Select participant #
 - Open first date they had the camera
 - Use the scroll bar on the right of the screen to move down the thumbnails
 - Move to the next hour using the blue right arrow
 - Once one day is completed go to next day; repeat until all days are reviewed
- To delete any pictures, click on image which will put a red border around it, click 'Delete'; if more than one image to delete in sequence highlight all images first and then click 'Delete'.

Ethics of data coding

This coding ethics framework was developed to guide the coding of the self-management activities in the images and observations of the participant's environment in the results and findings of this research ³. The coding ethics was adapted from similar studies on the use of wearable camera by this research team ^{4,5}.

The ethical considerations in coding the images are outlined below:

- The anonymity of all participants, third parties, and their environments is protected
- The privacy of those who may be inadvertently captured in the image is protected
- All images used in the disseminated material with identifiable people, street names, places, shops, and businesses names must be blurred
- The demographic information collected will only be viewed by the core Diabetes' Cam research team

- The data must be kept in secure University of Otago computers that are password protected
- During the data analysis, the equipment was never left unattended
- If the researcher leaves their computer for any amount of time they must log out
- The features of the data should not be discussed with anyone outside the research team.

8. Meeting times

Meeting 1: To collect equipment and download photos – time, place

Time	Place

Meeting 2: To review photos and delete any the participant doesn't want us to see - time place

Time	Place

Meeting 3: Interview session (will take about 60-90 minutes) – time, place

Time	Place

Instruction Booklet

Instrument for Data Collection



The Autographer camera

- Thank you for being part of this exciting study
- We hope you have fun and enjoy being part of a world-leading research study about Type 2 Diabetes
- If you are having problems with the equipment or if you have any other questions, please call:[insert number] Or leave a message. Please say you are from the diabetes study and would like to leave a message
- If at any time during the study you don't want to be part of the study anymore, that's fine, you just need to contact a member of the research team and let us know.

1. In this booklet you will find the following information

- Project instructions – what you need to do for this study
- Instructions on wearing the camera at work
- Instructions on when the camera should be turned off or removed
- Instructions on how to use the camera
- Next meeting times
- An equipment kit checklist

2. Project instructions

General instructions

- Wear the camera for 4 full days – Thursday, Friday, Saturday, and Sunday
- Hang the camera around your neck AND clip it to your clothing. It keeps it safe and is more comfortable to wear
- Make sure you wear the camera on top of your clothing
- Go about your day as normal. Don't change anything you do during the day, even if you think it is uninteresting and boring.

2. In the morning:

- Turn on your morning camera the one with (a 'morn' sticker on it) and start wearing it
- Make sure you have your information cards to give out
- Take your second camera with you if you are going out.

After lunch:

- Turn on your afternoon camera (the one with the 'aftern' sticker) and start wearing it at 1pm.

During the day:

- Check every now and then that the camera is working:
 - Check that the blue circle is blinking

- Press the top button once quickly; if the camera is working, words will come up on the front of the camera ('Welcome'). They will go off automatically.
- If the camera isn't working the battery may be flat, so put it on to charge and start using your second camera.

Before going to bed at night:

- Plug in the cameras to charge
- We will send you a text message reminder (or phone you) at 7am to remind you to put the first camera on, and at 1pm to remind you to change the cameras
- We will also send you a text reminder at 9pm to remind you to charge the cameras.

3. Wearing the camera at work

If you have permission from your employer to wear a camera at work, you will be provided with three cameras in total.

To reduce the likelihood of a camera containing workplace photos being lost, the following instructions should be followed:

In the morning:

- Turn on and start wearing the morning camera (labelled 'morn') and start wearing it
- Make sure you have the second fully charged cameras to take with you

At lunch time:

- Take off the morning camera and store it securely (e.g. in a zipped-up bag, or in the manager's office)
- Turn on and start wearing the afternoon camera (labelled 'aftern')

At the end of the workday:

- Take off the afternoon camera and store it securely
- Turn on and start wearing the evening camera (labelled even)
- Wear this camera until bedtime.

4. When to take the camera off

You can turn the camera off (or cover the camera lens using the privacy dial) anytime you don't feel comfortable wearing it. You will also need to do this in the following places.

Participant's reminders note on when to take off the camera

- Before going to the bathroom or getting changed
- In public toilets, changing rooms and showers
- Public swimming pools
- Anytime you are around anyone that is not fully clothed
- In hospitals, hospices, and doctors' offices
- In your workplace unless you have permission from your employer
- In shops, supermarkets, and other buildings where there is a notice or sign that says you can't take photos
- If in Church, or school, check with the person in charge to make sure it is okay to wear the camera
- If someone asks you to take it off
- Before playing contact sports (like rugby)
- Before you go swimming as the camera is not waterproof
- If it is raining heavily and you think it might get wet while you are outside

BUT PLEASE REMEMBER TO PUT IT BACK ON!

Don't worry if you forget to take it off - you will be the first person to see the photos and you will be able to delete anything you don't want us to see.



5. Instructions on how to operate the camera

How do I turn it on?	Press and hold the ON / OFF button for 5 seconds until the blue words 'AUTOGRAPHER' and 'Hello' come on the front of the camera.
How do I turn it off?	Press and hold the ON / OFF button for 5 seconds until the blue words 'Goodbye' come on the front of the camera and it turns off.
How else can I stop the camera taking photos?	You can turn the privacy dial around until the yellow cover shows; or you can turn the camera around, so it is facing your chest.
How do I know it is working?	The blue light will blink or Press the TEST BUTTON ONCE; blue words will show if it is on.
What if it won't turn on?	The battery could be flat – put it on to charge and use the other camera

How do I know it is charged?	The 'battery' symbol will be solid
------------------------------	------------------------------------

NOTE: If the privacy dial is turned to yellow or the lens is covered for more than 5 minutes the camera will turn itself off. If this happens you will need to open the privacy dial and turn the camera back on.

6. Project Information Card

I'm taking part in a study being run by the University of Otago, Wellington. As part of this study, I'm wearing a camera that automatically takes photos of the things I see and do throughout the day and the places I go. The photos will be used to provide information about how my environment might affect my health. The photos will only be seen by members of the research team. We are not deliberately taking photos of individual people or places, so if the camera takes a photo of you, we will blur out anything that might identify you. If you don't want photos taken here, that's okay too – just let me know and I can turn the camera off. Alternatively, I can delete the photos before the research team sees them.

If you want to know more about the study or have any questions, please contact:

Assoc. Prof. Louise Signal Department of Public Health University of Otago, Wellington E-mail: louise.signal@otago.ac.nz Phone: 021 0324720	Researcher: Keresi Rokorua Bako (ID: 3153547) Department of Public Health University of Otago, Wellington E-mail: bkeresirokorua@yahoo.com Phone: 8658463
--	---

Interview Questionnaires

Exploring Diabetes Self-Management in Fiji using Wearable Cameras

SECTION: A

Participant Demographic

We would like to collect a few details about you and your diabetes. This information will help us better understand your diabetes and will help us describe the group of people who took part in this study. No individual names will be used in any reports.

You can choose not to answer any or all these questions

Demographic questions

1: What gender are you?	
	Male
	Female

2: What is your date of birth?	

3.	Your marital Status
	Married
	Single
	Divorced
	Other: Please specify

4: What level of education do you have? Please describe	

5.	What form of employment do you do?


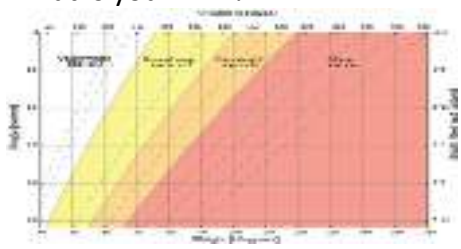
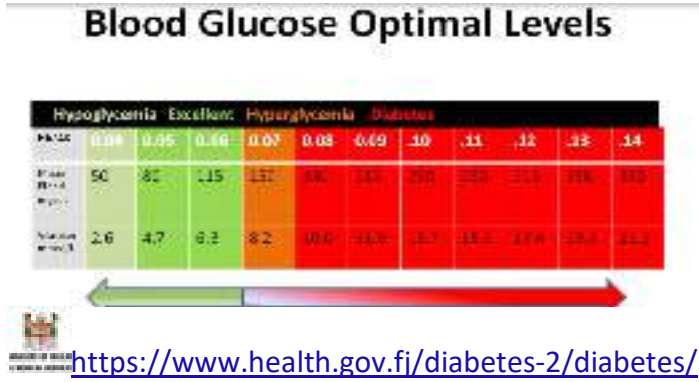
6.	How much do you usually get in a week?

SECTION B: Decision-Making Skills

7.	Decision-making skills	Individual answer
1	In the <u>last 12 months</u> have you <u>personally</u> been forced to buy cheaper food so that you could pay for other things you need?	Yes / No
2	In the <u>last 12 months</u> have you <u>personally</u> been out of paid work at any time for more than one month?	Yes / No
3	In the <u>12 months</u> did you receive payments from any of the living benefits: Supported Living Payment?	Yes / No
4	In the <u>last 12 months</u> have you <u>personally</u> made use of special food grants because you did not have enough money for food?	Yes / No
5	In the <u>last 12 months</u> have you <u>personally</u> continued wearing shoes with holes because you could not afford replacements?	Yes / No
6	In the <u>last 12 months</u> have you <u>personally</u> gone without fresh fruit and vegetables, often, so that you could pay for other things you needed?	Yes / No
7	In the <u>last 12 months</u> have you <u>personally</u> received help in the form of clothes or money from a community organization (like the Social Welfare, Salvation Army, Women's group, or Any kind of donations?)	Yes / No

Section C: History of Diabetes

8.	History of Diabetes		
----	---------------------	--	--

1	How long have you had diabetes?		
2	What medicines do you take for your diabetes? Insulin Metformin Glibenclamide, Glipizide Other		
3	What is your HbA1c 	≤ 6.5 6.5 – 7.0 7.0 – 7.5 7.6 – 7.9 8.0 – 8.5	
4	What is your BMI? 	Underweight Normal range Overweight Obese	
5	What is your BSL reading? 		
6	Do you have (or have you had in the past) any of these medical conditions? Problems with your heart including heart attacks or angina	Yes No	
7	Do you have (or have you had in the past) any of these medical conditions? Problems with your sight	Yes No	

8	Do you have (or have you had in the past) any of these medical conditions? Problems with your kidneys	Yes No	
9	Do you have (or have you had in the past) any of these medical conditions? Damage to your nerves? (For example, pain, numbness or unusual sensations in your arms or legs)	Yes No	
10	Do you have (or have you had in the past) any of these medical conditions? Problems with your legs	Yes No	
11	Do you have (or have you had in the past) any of these medical conditions? Depression	Yes No	
12	Do you have (or have you had in the past) any of these medical conditions? High blood pressure	Yes No	
13	Do you have (or have you had in the past) any of these medical conditions? A stroke or mini stroke	Yes No	

Thank you.

Semi-Structured Interview Schedule For The Researcher

Title of the study: Exploring Diabetes Self-Management in Fiji using Wearable Cameras

Living with Type 2 Diabetes

A: Questions related to the photos

- Can you tell me about what is going on in this set of photographs?
- What are the greatest barriers you face in managing your diabetes?
- What do you do to cope? What makes it easier to manage your diabetes?

B: What are the greatest challenges and barriers you face in managing your diabetes and why?

1. Medication
2. Food
3. Physical activity
4. Monitor blood glucose levels
5. Footcare
6. Transportation to clinic
7. Quality of health care received/ Health information education/Utilisation of healthcare services.

C: To explore the barriers faced when managing DM and how do they deal with the barriers in everyday living.

1. What do you do to cope?
2. What makes it easier to manage your diabetes?
3. What advice would you give to other people about managing their diabetes?
4. Is there anything else you would like to say about managing your diabetes or taking part in this research?

D: General questions

1. Can you tell me about what happened during those times when the camera was turned off?
2. Were there parts of your day that you felt were important that we didn't ask you about?

Participant Information Sheet

Exploring Diabetes Self-Management in Fiji using Wearable Cameras

Introduction

Thank you for showing an interest in this research. Please read this information sheet carefully. Take time to consider and, if you wish, talk with relatives or friends, before deciding whether or not to take part. If you decide to take part, we thank you. If you decide not to take part, this will not affect your diabetes care and we thank you for your time.

What is the aim of this research project?

This study aims to improve our understanding of what it's like to live with diabetes in Fiji using a small wearable camera called an Autographer.

We know that many people find it hard to manage their diabetes and control their blood sugar levels. However, we don't know how people fit their diabetes into their daily lives and what difficulties they face every day in trying to manage their diabetes. This study aims to improve our understanding of what it's like to live with diabetes in Fiji so that doctors and nurses will be able to find better ways of helping their patients manage their diabetes. It will also help us know if wearable cameras are a useful way to study diabetes. To do this, we are looking for forty adults to take part in this study who are aged >18 years, have had type 2 diabetes for more than 2 years, have a level of Hba1c of 6.5% and above and identify as I-Taukei living in Fiji.

Who is funding this project?

This is a self-funded study

Who are we seeking to participate in the project?

A total of 40 I-Taukei adults diabetes patients aged 18 years and above will be recruited from the Diabetes Clinic at the four health divisions in Fiji. Both male and female who had more than 2 years history of T2DM with Hba1c of 6.5% and above are eligible to participate.

This is the first study in Fiji to use these cutting-edge technologies to study the lives of patients with diabetes. It is based on a similar study conducted in New Zealand.

If you participate, what will you be asked to do?

If you agree to take part in this study, you will be asked to wear a small camera called an Autographer for four days: two weekdays and on weekends. The camera hangs around your neck or clips onto your clothing. It automatically takes a digital photo every 7 seconds of the things you see and do, but it does not record video or sound. A few days after you finish wearing the camera, we will meet to discuss your photos and find out how you found wearing the camera and taking part in this research. In total you will meet with the researcher on four occasions at a place and time that is convenient for you.



Figure 1: The Autographer camera

Is there any risk of discomfort or harm from participation?

Although the camera is very discrete and participants in previous studies have not experienced any major problems, you may feel uncomfortable wearing the camera in some situations. If that happens you should turn the camera off until you are feeling more comfortable. You may also meet people who are unhappy about their photo being taken. To help with this, we will provide you with information cards that explain about the cameras and how to contact the researchers on phone in Fiji and furthermore, the University of Otago.

You may forget to turn the camera off or accidentally take photos that you don't want anyone to see. Don't worry if that happens. You will be the first person to see your photos and you will be able to delete any photos you don't want us to see.

If you are working and you are happy to wear the camera at work, your employer will need to give permission for you to do so. Otherwise, you will need to turn the camera off at work.

What specimens, data or information will be collected, and how will they be used?

The results of the study will be available with the Health Information Unit in Ministry of Health and Medical Services Fiji, University of Otago Library (Wellington) and they may be published in journals. All identifying details will be removed and pictures blurred to protect the identity of the participants from any published information. We are happy to give you a copy of the results of the study if you would like one.

What about anonymity and confidentiality

As the Autographer takes high quality photos, the people and places that appear in your photos could be easy to identify. Therefore, to protect your privacy and the privacy of the people who appear in your photos, we will make sure that the photos you collect and the other information that you provide to us (including the interview recording and the information about you and your diabetes) is safe and secure and that none of your photos are shared publicly. We do this in a number of ways:

We store all the information you give us on a password-protected laptop or a secure server at the University of Otago, Wellington, and will be submitted to the Health Information Unit in the Ministry of Health and Medical Services Fiji, only members of the research team, who must keep all information confidential, will have access to this server.

To protect the privacy of other people included in your photos you will not receive a copy of the photos you took, and you will not be able to access your photos after you have deleted those you don't want us to see.

If any photos are published, we will blur out identifying features of your life such as your home address, car, phone or workplace, and any identifying features of any people in your photos.

At the end of the project the interview recording will be destroyed. The typed copies of the interview, the photos and all other information collected will be kept in secure storage for ten years and will then be destroyed.

If you agree to participate, can you withdraw later?

You can stop taking part in this study at any time without giving us a reason until your data is analyzed. Your diabetes care will not be affected if you choose to stop taking part. If you leave the study, the photos you collected and the other information you provided will be destroyed.

Any questions

If you have any questions now or in the future, please feel free to contact any of the researchers below:

Student Researcher:	PhD student: Keresi Rokorua Bako (ID: 3153547) Department of Public Health	Phone number: 8633976	Principal Investigator:	Professor Louise Signal Department of Public Health	Contact phone number: +64210324720
Diabetes Clinic Nurse	Diabetes Clinic Health Centre Fiji	Phone number	Co-Investigator:	Associate Professor Masoud Mohammednezhad	Contact phone number: +679-9726127
Medical officer In-charge	Health Centre Fiji	Phone number			

This study has been approved by the University of Otago Human Ethics Committee (Health). If you have any concerns about the ethical conduct of the research, you may contact the Committee through the Human Ethics Committee Administrator (phone +64 3 479 8256 or e-mail gary.witte@otago.ac.nz). And the the Fiji National Research Ethics committee at Ministry of Health and Medical Services. Fiji. Anjana: 3306177. Ext; 340170: e-mail: fijihealthresearch@gmail.com. Any issues you raise will be treated in confidence and investigated and you will be informed of the outcome.

Consent Form For Participants

Exploring Diabetes Self-Management in Fiji using Wearable Cameras

Following signature and return to the research team this form will be stored in a secure place for ten years.

Name of participant:

1. I have read the Information Sheet concerning this study and understand the aims of this research project.
2. I have had sufficient time to talk with other people of my choice about participating in the study.
3. I confirm that I meet the criteria for participation which are explained in the Information Sheet.
4. All my questions about the project have been answered to my satisfaction, and I understand that I am free to request further information at any stage.

5. I know that my participation in the project is entirely voluntary, and that I am free to withdraw from the project before its completion.

I know that as a participant:

6. I am free to withdraw from the study at any time and if I do this will not affect my diabetes care at the Diabetes clinic.
7. This study is looking at what it is like to live with diabetes in Fiji and what things make diabetes easier or harder to manage.
8. I will be asked to wear a camera for 4 days and I will also be asked to charge the camera at night.
9. The camera will be taking pictures of the things I see and do and the places I visit during a normal day.
10. I will not be asked to change my behavior or the places I visit during the study.
11. I will be briefed on situations where I will need to remove the camera and turn it off, to protect my privacy and the privacy of those around me.
12. I will need to tell the people I live with about the study and that I will be wearing the camera at home.
13. I can take the camera off at any time for privacy, if asked to or if I feel uncomfortable.
14. I will be asked to provide some personal information about myself and my diabetes. However, I do not have to answer any questions that make me uncomfortable.
15. I will have my height and weight measured so that the researchers can calculate my BMI.
16. I will be interviewed about what my photos show and how I found wearing the camera and taking part in this study. I know that some of the interview questions have been decided in advance but many of the questions will depend on what my photos show. The interview will be recorded.
17. I do not have to answer any of the interview questions if I don't want to, and I can leave the interview at any time. If I do this, my diabetes care will not be affected.
18. I will be asked to provide a contact phone number to allow the researchers to remind me to wear and recharge the camera.
19. I will be provided with information cards about the project that can be given to members of the public if I am approached and asked about why I am wearing a camera. These cards

will have the contact details of the researchers and will encourage interested parties to contact the researchers for further information about the project.

20. After I have reviewed the photos, I collected and deleted any photos I do not want the researchers to see, I will no longer have access to the photos. The photos will then become the property of the University of Otago. This is to protect the privacy of anyone who appears in the photos, and to ensure that the photos are not shared publicly.
21. The equipment kit, including the cameras, are the property of the University of Otago, Wellington, and will be collected by the researcher after I have worn the devices for 4 days. I know that I will not be liable for any equipment loss or damage.
22. Typed copies of the interview recording, the photos and other information will be kept in secure storage for ten years and then destroyed.
23. The results of the project, including images from the camera, and quotes from interviews may be published in journals, talked about at conferences, and will be available and the Fiji National University and be Submitted to Health Information Unit in Ministry of Health and Medical and the University of Otago Library (Wellington). Any information published will have all identifying details, for example my name removed with pictures blurred to protect the identity of the participants.
24. I agree that any personal identifying information will remain confidential between myself and the researchers during the study and will not appear in any spoken or written report of the study.
25. I understand the nature and size of the risks of discomfort or harm which are explained in the Information Sheet.
26. I know that there is no remuneration offered for this study, and that no commercial use will be made of the data.
27. I understand that the (*tissue, blood, or other body fluid*) samples will be (*provide details of storage, and disposal with opportunity to ask for any questions if appropriate*). **Not Applicable.**
28. I agree with the researchers informing my GP that I am taking part in this study.
- Yes No
29. I agree with the researchers obtaining my health records including information about my diabetes and my latest HbA1c level.

Yes No

30. I would like to receive a copy of the key findings of this study.

Yes No

31. I agree with the researchers informing my GP about any serious health problems that are identified during this study.

Yes No

I agree to take part in this study.

Signature of participant:

Date:

Name of person taking consent

Date:

Principal Investigator:	Professor Louise Signal Department of Public Health	Contact phone number: +64210324720
Co-Investigator:	Associate Professor Masoud Mohammednezhad	Contact phone number: +679-9726127
Student Researcher:	PhD student: Keresi Rokorua Bako (ID: 3153547) Department of Public Health	Contact phone number: 8658463
Diabetes Clinic Nurse	Diabetes Clinic Health Centre Fiji	
Medical officer In-charge	Health Centre Fiji	

This study has been approved by the Fiji National Research Ethics committee at Ministry of Health and Medical Services, Fiji. Anjana: 3306177. Ext; 340170 fijihealthresearch@gmail.com and the University of Otago Human Ethics Committee (Health) If you have any concerns about the ethical conduct of the research you may contact the Committee through the Human Ethics Committee Administrator (phone +64 3 479 8256 or e-mail gary.witte@otago.ac.nz) or Fiji Ethics Anjana: 3306177. Ext; 340170.

Any issues you raise will be treated in confidence and investigated and you will be informed of the outcome

Employer Information Sheet A – Disclosing Participant’s Diabetes

This information sheet is to provide you with details about a research study one of your employees has agreed to take part in. The study is using wearable cameras to explore what it's like to live with diabetes in Fiji. Understanding the unique challenges of managing diabetes in people's work environments is an important part of this research.

Please read this information sheet carefully before deciding if you will consent to your employee wearing the camera while at work. If you decide to take part, we will thank you. If you decide not to take part, we will advise your employees to remove the camera when they are at work.

What is the aim of this research project?

This study aims to improve our understanding of what it's like to live with diabetes in Fiji using a small wearable camera called an Autographer.

We know that many people find it hard to manage their diabetes and control their blood sugar levels. However, we don't know how people fit their diabetes into their daily lives and what difficulties they face every day in trying to manage their diabetes. This study aims to improve our understanding of what it's like to live with diabetes in Fiji so that doctors and nurses will be able to find better ways of helping their patients manage their diabetes. It will also help us know if wearable cameras are a useful way to study diabetes. To do this, we are looking for forty adults to take part in this study who are aged >18 years, have had type 2 diabetes for more than 2 years, has a level of Hba1c of 6.5% and above and identify as I-Taukei living in Fiji.

Who is funding this project?

This is a self-funded study

Who are we seeking to participate in the project?

A total of 40 I-Taukei adult diabetes patients, aged 18 years and above will be recruited from the Diabetes Clinic in the four divisions in, Fiji. Both males and female who had more than 2 years history of T2DM with Hba1c of 6.5% and above are eligible.

This is the first study in Fiji to use these cutting-edge technologies to study the lives of patients with diabetes. It is based on a similar study conducted in New Zealand.

If your employee participates, they will be asked to do the following:

If you agree to take part in this study, you will be asked to wear a small camera called an Autographer for four days. two weekdays and two weekend days. The camera hangs around your neck or clips onto your clothing. It automatically takes a digital photo every 7 seconds of the things you see and do, but it does not record video or sound. A few days after you finish wearing the camera, we will meet to discuss your photos and find out how you found wearing the camera and taking part in this research. In total, you will meet with the researcher on three occasions at a place and time that is convenient for you.



Figure 1: *The Autographer camera*

Is there any risk of discomfort or harm from participation?

Although the camera is very discrete and participants in previous studies have not experienced any major problems, you may feel uncomfortable wearing the camera in some situations. If that happens you should turn the camera off until you are feeling more comfortable. You may also meet people who are unhappy about their photo being taken. To help with this, we will provide you with information cards that explain the cameras and how to contact the researchers on the phone in Fiji and furthermore the University of Otago. You may forget to turn the camera off or accidentally take photos that you don't want anyone to see. Don't worry if that happens. You will be the first person to see your photos and you will be able to delete any photos you don't want us to see.

If you are working and you are happy to wear the camera at work, your employer will need to give permission for you to do so. Otherwise, you will need to turn the camera off at work.

What specimens, data or information will be collected, and how will they be used?

The results of the study will be available with the Health Information Unit in the Ministry of Health and Medical Services Fiji, University of Otago Library (Wellington) and they may be published in journals. All identifying details will be removed and pictures blurred to protect the identity of the participants from any published information. We are happy to give you a copy of the results of the study if you would like one.

What about anonymity and confidentiality?

As the Autographer takes high-quality photos, the people and places that appear in your photos could be easy to identify. Therefore, to protect your privacy and the privacy of the people who appear in your photos, we will make sure that the photos you collect and the other information that you provide to us (including the interview recording and the information about you and your diabetes) is safe and secure and that none of your photos are shared publicly. We do this in a number of ways:

We store all the information you give us on a password-protected laptop or a secure server at the University of Otago, Wellington, and will be submitted to the Health Information Unit in the Ministry of Health and Medical Services Fiji, only members of the research team, who must keep all information confidential, will have access to this server.

To protect the privacy of other people included in your photos you will not receive a copy of the photos you took, and you will not be able to access your photos after you have deleted those you don't want us to see.

If any photos are published, we will blur out identifying features of your life such as your home address, car, phone, or workplace, and any identifying features of any people in your photos.

At the end of the project, the interview recording will be destroyed. The typed copies of the interview, the photos, and all other information collected will be kept in secure storage for ten years and will then be destroyed.

If you agree to participate, can you withdraw later?

You can stop taking part in this study at any time without giving us a reason until your data is analyzed. Your diabetes care will not be affected if you choose to stop taking part. If you leave the study, the photos you collected and the other information you provided will be destroyed.

What will you and/or your workplace be asked to do?

We are asking you to consider whether it is acceptable for your employee to wear the Autographer for some or all their workday. If you do give consent, you will still be able to ask the participant to turn off or remove the camera if you consider it is no longer appropriate or the work, they are currently engaged in is confidential. As we are not asking participants to change their behavior whilst wearing the camera, no changes to their regular work activities will be needed.

We are also asking you to inform your other employees about the study. To assist you with this we will provide you with information cards that indicate that we are not intentionally taking photos of individual people or the work that they are doing, advise that the participant can be asked to turn the camera off at any point, and provide contact details for the researchers.

The cards also indicate that the participant will be able to delete any photos of individuals or their work prior to the researchers seeing them. The cards also indicate that no identifiable features of individuals, their work or the workplace will be included in any published information about this research.

What are the potential risks to your workplace?

The photos taken by the Autographer are of sufficient quality that information on computer screens could be easily read if the images were enlarged. Therefore, it is possible that photos of confidential or sensitive information about your workplace might inadvertently be captured.

How will we protect your information?

We have several safeguards in place to protect the privacy and confidentiality of your workplace and your employees.

- The camera only takes still images. There is no audio or video recording.

- The participants will be provided with a separate camera that will only be worn at work. This will minimize the risk of a camera containing workplace photos being lost. Participants will be advised to keep this camera secure outside of work.

- After being downloaded from the camera, the photos will be stored on a password-protected laptop or a secure server at the University of Otago, Wellington, and made available with the: and will be submitted to the Health Information Unit in the Ministry of Health and Medical Services Fiji.

Only members of the research team have access to this server. The images and all other information collected during the study will be kept in secure storage for ten years and then destroyed.

- The participants in the study will be given the opportunity to privately review and delete any photos they do not want the researcher to see. This will include any confidential information about their work or workplace.

- To ensure control over the use and security of the photos, only the researchers involved in the study will have access to the information collected. All researchers must abide by the confidentiality agreements with the Fiji National Research Ethics Committee at the Ministry of Health and Medical Services. Fiji. And the University of Otago. Also, the participants will not retain a copy of the photos they take.

- In any published material, we will blur any identifiable features of your employees or others captured in the images or your workplace including computer screens and signage.

- After being downloaded from the camera, the photos will be stored on a password-protected laptop or a secure server with the researcher and the Health Information Unit in the Ministry of Health and Medical Services Fiji. Only members of the research team have access to this server. The images and all other information collected during the study will be kept in secure storage for ten years and then destroyed.

Can I withdraw my consent?

You can withdraw your consent for the camera to be worn at your workplace at any time up until the analysis of the images commences without giving us a reason. If you withdraw your consent, the photos taken in your workplace will be deleted unless analysis of the images has begun.

What will we do with the photos?

The photos will be analyzed along with the other information collected for this study. The results of the study will be available to the Health Information Unit in Ministry of Health and Medical Services Fiji, and the University of Otago Library (Wellington) and may be published in medical journals. However, any published information will have all identifying details of your workplace, your employee's colleagues and others will be removed with pictures blurred to protect the identity of the participants.

What if I have any questions or concerns?

We want you to be completely comfortable with the study before you agree to take part. Therefore, if you have any questions or concerns about the project, either now or in the future, please feel free to contact:

Student Researcher:	PhD student: Keresi Rokorua Bako (ID: 3153547) Department of Public Health University of Otago Wellington, NZ	Contact phone number: 8658463
Diabetes Clinic Nurse	Diabetes Clinic Health Centre Fiji	Contact phone number
Medical officer In charge	Health Centre Fiji	Contact phone number
Principal Investigator:	Professor Louise Signal Department of Public Health University of Otago Wellington, NZ	Contact phone number: +64210324720 E-mail louise.signal@otago.ac.nz
Co-Investigator:	Associate Professor Masoud Mohammednezhad School of Public Health FNU.	Contact phone number: +6799726127

Thank you

This study has been approved by the Fiji National Research Ethics committee at Ministry of Health and Medical Services, Fiji. Contact: Anjana: 3306177. Ext; 340170 e-mail: fijihealthresearch@gmail.com and the University of Otago Human Ethics Committee (Health) and the If you have any concerns about the ethical conduct of the research you may contact the Committee through the Human Ethics Committee Administrator (phone +64 3 479 8256 or e-mail gary.witte@otago.ac.nz).
Any issues you raise will be treated in confidence and investigated and you will be informed of the outcome.

Employer Consent Form- A- Disclosing Participant's Diabetes

Name of employee:

I have read the Information Sheet concerning this project and understand what will be asked of my workplace. All my questions have been answered to my satisfaction. I understand that I can ask for further information at any stage.

I acknowledge that:

1. My workplace's involvement in this study is entirely voluntary.
2. I can withdraw my consent for my employee to wear the Autographer camera at work at any point and if I do, all photos of the workplace will be deleted unless analysis of the photos is complete.
3. This study is looking at what it is like to live with diabetes in Fiji and what things make diabetes easier or harder to manage in different environments.
4. My employee will be wearing a camera at work for 4 full days 2 weekdays and 2 weekend days whichever is applicable on the days of work.
5. The camera is not intentionally taking photos of individuals or the work that they are doing.
6. I can ask my employee to turn the camera off anytime during the workday.
7. The camera may inadvertently capture photos of confidential or sensitive information about my workplace or my other employees who are not part of this study.
8. My employee will be given the opportunity to review and delete any photos that include confidential or sensitive information before the researchers get to see them.
9. The researchers are using robust processes to ensure the privacy and confidentiality of any information about my workplace captured in the photos.

10. No identifiable photos of my workplace or employees will be included in any written reports or publications.
11. Members of the research team will be available to brief me and my employees about the project if necessary.
12. The results of the project, including photos, may be published in journals, talked about at conferences, and will be available in the University of Otago Library (Wellington). the Health Information Unit in the Ministry of Health and Medical Services Fiji, any information published will have all identifying details, for example the name of your workplace removed.

I agree to allow my employee to wear the Autographer camera at work.

.....

(Name and Signature)

(Date)

Thank you!

This study has been approved by the University of Otago Human Ethics Committee (Health) and and the Fiji National Research Ethics committee at Ministry of Health and Medical Services. Fiji. If you have any concerns about the ethical conduct of the research you may contact the Committee through the Human Ethics Committee Administrator (phone +64 3 479 8256 or e-mail gary.witte@otago.ac.nz) And Fiji Ethics committee...Anjana: 3306177. Ext: 340170. E-mail: fijihealthresearch@gmail.com. Any issues you raise will be treated in confidence and investigated and you will be informed of the outcome.

Employer Information Sheet B

Exploring Diabetes Self-Management in Fiji using Wearable Cameras

This information sheet is to provide you with details about a research study one of your employees has agreed to take part in. The study is using wearable cameras to explore how our everyday environments affect our health. As many adults spend more than a third of their lives at work, understanding the impact of people's work environments on their health is an important part of this research.

Please read this information sheet carefully before deciding if you will consent to your employee wearing the camera while at work. If you decide to take part, we will thank you. If you decide not to take part, we will advise your employees to remove the camera when they are at work.

What is the aim of this research project?

This study aims to explore how our everyday environments affect our health.



Figure 1: The Autographer camera

We know that many people find it hard to manage their health. However, we don't know how people fit into their daily lives and what difficulties they face every day. This study aims to improve our understanding of how our everyday environments affect our health in Fiji so that doctors and nurses will be able to find better ways of helping their patients manage their health. It will also help us know if wearable cameras are a useful way to study how our everyday environments affect our health. To do this, we are looking for forty adults to take part in this study who are aged >18 years and identify as I-Taukei living in Fiji.

Who is funding this project?

This is a self-funded study

Who are we seeking to participate in the project?

A total of 40 I-Taukei adult aged 18 years and above will be recruited from the health care Clinic at the four divisions in Fiji. Both males and females will be chosen to participate.

This is the first study in Fiji to use these cutting-edge technologies to study the health of the people. It is based on a similar study conducted in New Zealand.

If you participate, what will you be asked to do?

If you agree to take part in this study you will be asked to wear a small camera called an Autographer for four days, two weekdays, and two weekend days. The camera hangs around your neck or clips onto your clothing. It automatically takes a digital photo every 7 seconds of the things you see and do, but it does not record video or sound. A few days after you finish wearing the camera, we will meet to discuss your photos and find out how you found wearing the camera and taking part in this research. In total, you will meet with the researcher on three occasions at a place and time that is convenient for you.

Is there any risk of discomfort or harm from participation?

Although the camera is very discrete and participants in previous studies have not experienced any major problems, you may feel uncomfortable wearing the camera in some situations. If that happens you should turn the camera off until you are feeling more comfortable. You may also meet people who are unhappy about their photo being taken. To help with this, we will provide you with information cards that explain the cameras and how to contact the researchers on the phone in Fiji and furthermore the University of Otago. You may forget to turn the camera off or accidentally take photos that you don't want anyone to see. Don't worry if that happens. You will be the first person to see your photos and you will be able to delete any photos you don't want us to see. If you are working and you are happy to wear the camera at work, your employer will need to give permission for you to do so. Otherwise, you will need to turn the camera off at work.

What are the potential risks to your workplace?

The photos taken by the Autographer are of sufficient quality that information on computer screens could be easily read if the images were enlarged. Therefore, it is possible that photos of confidential or sensitive information about your workplace might inadvertently be captured.

What specimens, data or information will be collected, and how will they be used?

The results of the study will be available with the Health Information Unit in the Ministry of Health and Medical Services Fiji, University of Otago Library (Wellington) and they may be published in journals. All identifying details will be removed and pictures blurred to protect the identity of the participants from any published information. We are happy to give you a copy of the results of the study if you would like one.

What about anonymity and confidentiality?

As the Autographer takes high-quality photos, the people and places that appear in your photos could be easy to identify. Therefore, to protect your privacy and the privacy of the people who appear in your photos, we will make sure that the photos you collect and the other information that you provide to us (including the interview recording and the information about you and your diabetes) is safe and secure and that none of your photos are shared publicly. We do this in a number of ways:

We store all the information you give us on a password-protected laptop or a secure server at the University of Otago, Wellington, and will be submitted to the Health Information Unit

in the Ministry of Health and Medical Services Fiji, only members of the research team, who must keep all information confidential, will have access to this server.

To protect the privacy of other people included in your photos you will not receive a copy of the photos you took, and you will not be able to access your photos after you have deleted those you don't want us to see.

If any photos are published, we will blur out identifying features of your life such as your home address, car, phone, or workplace, and any identifying features of any people in your photos.

At the end of the project, the interview recording will be destroyed. The typed copies of the interview, the photos and all other information collected will be kept in secure storage for ten years and will then be destroyed.

How will we protect your information?

We have several safeguards in place to protect the privacy and confidentiality of your workplace and your employees.

- The camera only takes still images. There is no audio or video recording.
- The participants will be provided with a separate camera that will only be worn at work. This will minimize the risk of a camera containing workplace photos being lost.
- After being downloaded from the camera, the photos will be stored on a password-protected laptop or a secure server at the University of Otago, Wellington. Health Information Unit in the Ministry of Health and Medical Services Fiji, only members of the research team have access to this server. The images and all other information collected during the study will be kept in secure storage for ten years and then destroyed.
- The participants in the study will be given the opportunity to privately review and delete any photos they do not want the researcher to see. This will include any confidential information about their work or workplace.
- To ensure control over the use and security of the photos, only the researchers involved in the study will have access to the information collected. All researchers must abide by the confidentiality agreements of the Fiji National Research Ethics Committee at Ministry of Health and Medical Services. Fiji and the University of Otago. Also, the participants will not receive a copy of the photos they take.

- In any published material, we will blur any identifiable features of your employees or your workplace including computer screens and signage. In addition, we will ask for your consent before publishing any photos taken in the workplace.

Can I withdraw my consent?

You can withdraw your consent for the camera to be worn at your workplace at any time without giving us a reason. If you withdraw your consent, the photos taken in your workplace will be deleted unless analysis of the images is complete.

What will we do with the photos?

The photos will be analysed along with the other information collected for this study. The results of the study will be available in the University of Otago Library (Wellington) Health Information Unit in Ministry of Health and Medical Services Fiji and may be published in medical journals. However, any published information will have all identifying details of your workplace or your employee's pictures blurred or removed.

What if I have any questions or concerns?

We want you to be completely comfortable with the study before you agree to take part. Therefore, if you have any questions or concerns about the project, either now or in the future, please feel free to contact:

Student Researcher:	PhD student: Keresi Rokorua Bako (ID: 3153547) Department of Public Health	Contact phone number: 8658463
Diabetes Clinic Nurse	Diabetes Clinic Health Centre Fiji	Contact phone number
Medical officer In-charge	Health Centre Fiji	Contact phone number
Principal Investigator:	Professor Louise Signal Department of Public Health	Contact phone number: 04-9186477
Co-Investigator:	Associate Professor Masoud Mohammednezhad	Contact phone number: +679-9726127

Thank you.

This study has been approved by the Fiji National Research Ethics committee at Ministry of Health and Medical Services, Fiji, Anjana: 3306177. Ext: 340170 and the University of Otago Human Ethics Committee (Health) and the If you have any concerns about the ethical conduct of the research you may contact the Committee through the Human Ethics Committee Administrator (phone +64 3 479 8256 or e-mail gary.witte@otago.ac.nz).

Any issues you raise will be treated in confidence and investigated and you will be informed of the outcome.

Employer Consent Form

Exploring Diabetes Self-Management in Fiji using Wearable Cameras

Following signature and return to the research team this form will be stored in a secure place for ten years.

Name of employee:

I have read the Information Sheet concerning this project and understand what will be asked of my workplace. All my questions have been answered to my satisfaction. I understand that I can ask for further information at any stage.

I acknowledge that:

1. My workplace's involvement in this study is entirely voluntary.
2. I can withdraw my consent for my employee to wear the Autographer camera at work at any point and if I do, all photos of the workplace will be deleted unless analysis of the photos is complete.
3. This study is looking at what it is like in our everyday environments that affect our health in Fiji and what things make it easier or harder to manage in different environments.
4. My employee will be wearing a camera at work for 4 full workdays.
5. The camera is not intentionally taking photos of individuals or the work that they are doing.
6. I can ask my employee to turn the camera off anytime during the workday.
7. The camera may inadvertently capture photos of confidential or sensitive information about my workplace or my other employees who are not part of this study.

8. My employee will be given the opportunity to review and delete any photos that include confidential or sensitive information before the researchers get to see them.
9. The researchers are using robust processes to ensure the privacy and confidentiality of any information about my workplace captured in the photos.
10. No identifiable photos of my workplace or employees will be included in any written reports or publications.
11. Members of the research team will be available to brief me and my employees about the project if necessary.
12. The results of the project, including photos, may be published in journals, talked about at conferences, and will be available in the Health Information Unit in the Ministry of Health and Medical Services Fiji, and the University of Otago Library (Wellington). Any information published will have all identifying details, for example, the name of your workplace removed, and pictures blurred.
13. I agree to allow my employee to wear the Autographer camera at work.

.....

(Name and Signature)

.....

(Date)

References

1. Maina PM, Pienaar M, Reid M. Self-management practices for preventing complications of type II diabetes mellitus in low and middle-income countries: A scoping review. *International Journal of Nursing Studies Advances*. 2023;5:100136.
2. Bako KR, Reynolds AN, Sika-Paotonu D, Signal L, Mohammadnezhad M. Identifying factors which enhance the self-management of type 2 diabetes: A Systematic Review with Thematic Analysis. 2022.
3. Bako KR, Mohammadnezhad M, Sika-Paotonu D, Sime S, Signal L. Diabetes Cam: An Objective Methodology to Study Diabetes Self-Management. *American Journal of Preventive Medicine*. 2023.
4. Gage R, Gurtner M, Keall M, et al. Fun, food and friends: a wearable camera analysis of children's school journeys. *Journal of Transport & Health*. 2023;30:101604.
5. Veatupu L, Puloka V, Smith M, McKerchar C, Signal L. Me'akai in Tonga: Exploring the nature and context of the food Tongan children eat in Ha'apai using wearable

cameras. *International journal of environmental research and public health*.
2019;16(10):1681.