Dissertation Training

at

SilverGenie Pvt. Ltd.

"Exploring the Post Intervention experiences of elderly Diabetic type-2 Patients: A Qualitative Research study"

By

Ms. Avinash Kaur Sodhi

(PG/21/018)

Under the guidance of

Dr. Preetha G S

PGDM (Hospital & Health Management)

2021-23

International Institute of Health Management Research, New Delhi

INTERNSHIP COMPLETION CERTIFICATE

The certificate is awarded to **Ms. Avinash Kaur Sodhi** in recognition of having successfully completed her internship in the department of Operations and has successfully completed her Project on ***"Exploring the Post Intervention experiences of elderly Diabetic type-2 Patients: A Qualitative Research study"*** in **Silvergenie Pvt. Ltd.**

She has come across as a committed, sincere & diligent person who has a strongdrive and zeal for learning.

We wish her all the best for future endeavors.

Mrs. Pooja Sethi
Operational Head
Silvergenie Pvt. Ltd.

TO WHOM SO EVER IT MAY CONCERN

This is to certify that **Ms. Avinash Kaur Sodhi** student of PGDM (Hospital & Health Management) from International Institute of Health Management Research, New Delhi has undergone internship training at **SilverGenie Pvt. Ltd.**, **Gurugram, Haryana** from **15 March 2023** to **15 June 2023.**

The Candidate has successfully carried out the study designated to her during internship training and her approach to the study has been sincere, scientific and analytical.

The Internship is in fulfilment of the course requirements.

I wish her all success in all her future endeavours.

Dr. Sumesh Kumar
Associate Dean, Academic and Student Affairs
IIHMR, New Delhi

Dr. Preetha G S
Mentor
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CERTIFICATE OF APPROVAL

Certificate of Approval

The following dissertation titled **"*Exploring the Post Intervention experiences of elderly Diabetic type-2 Patients: A Qualitative Research study*"** at **"Silver Genie"** is hereby approved as a certified study in management carried out and presented in a manner satisfactorily to warrant its acceptance as a prerequisite for the award of **PGDM (Hospital & Health Management)** for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

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Dr. Shiv	
Dr. Sumeet Sidana	
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CERTIFICATE FROM DISSERTATION ADVISORY COMMITTEE

This is to certify that **Ms. Avinash Kaur Sodhi,** a Post graduate student of the **PGDM (Hospital & Health Management)** has worked under our guidance and supervision. She is submitting this dissertation titled "***Exploring the Post Intervention experiences of elderly Diabetic Patients: A Qualitative Research study***" at "**SilverGenie**" in partial fulfilment of the requirements for the award of the **PGDM (Hospital & Health Management).**

This dissertation has the requisite standard and to the best of our knowledge no part of it has been reproduced from any other dissertation, monograph, report or book.

Dr. Preetha G S
Professor
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INTERNATIONAL INSTITUTE OF HEALTH MANAGEMENT RESEARCH, NEW DELHI

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation title "***Exploring the Post Intervention experiences of elderly Diabetic type-2 Patients: A Qualitative Research study*"** and submitted by **Ms. Avinash Kaur Sodhi** Enrollment Number **PG/21/018** under the supervision of **Dr. Preetha G S** for award of PGDM (Hospital & Health Management) of the Institute carried out duringthe period from **15 March 2023 to 15 June 2023.**

embodies the original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.

Signature

FEEDBACK FORM

Name of the Student: Avinash Kaur Sodhi

Dissertation Organisation: SilverGenie Pvt. Ltd., STPI, sector 18 Gurugram, Haryana

Area of Dissertation: Operations

Attendance: 100%

Objectives achieved: yes

Deliverables: Detailed documentations include PHR, EPR, Lead the silvergenie livwell wellness program, worked on patient diagnostics part etc.

Strengths: Good Communication skills, Action Oriented, Highly Patient,Punctual.

Suggestions for Improvement: Great job on the recent work. Focus on minimizing rework and streamlining efforts to enhance efficiency further.

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Signature of the Officer-in-Charge/ Organisation Mentor (Dissertation)

Date: Place: Gurugram

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Name of Student	**Ms.: AVINASH KAUR SODHI**		
Enrolment/Roll No.	PG/21/018	**Batch Year**	2021-2023
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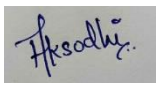

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I hereby take this opportunity to thank **Dr. Poulomi Bhattacharya** (CEO), **Mrs. Pooja Sethi** (Operational Manager) for granting me the opportunity to work in esteemed organization SilverGenie Pvt. Ltd. that gave me the scope for playing an active role in different activities, which was a learning experience for me.

Dissertation Internship report would not have been possible without the support of **Dr. Preetha G S** (Mentor), **Dr. Sumesh Kumar** (Associate Dean, Academic and Student Affairs) IIHMR, New Delhi. I express my sincere appreciation to them for their timely guidance, inspiration, and motivation.

A special vote of thanks to **Dr. Anandhi Ramachandran**, **Dr. Pijush Kanti Khan** as well as the entire faculty and staff of IIHMR, Delhi for their kind assistance during the study.

I am truly grateful for the guidance, support, and opportunities provided by these esteemed individuals and organizations, which have contributed significantly to my professional growth and development.

Thank You,

Avinash Kaur Sodhi

TABLE OF CONTENTS

ABBREVIATION

T2DM	Type 2 diabetes mellitus
PHR	Personal Health record
EPR	Emergency preparedness form
NPCDCS	National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases, and Stroke
NCD	Non-communicable disease
WHO	World Health Organisation
HbA1c	Glycated hemoglobin
ADA	American Diabetes Association
BP	Blood Pressure
DALYs	Disability Adjusted Life Years

1.0 ABOUT THE ORGANISATION

SILVER GENIE is a Women lead start-up which is providing a unique solution to manage the wellness needs of the elderly. They use technology to care for elderly and enhance their health outcomes by checking for real-time information, remotely monitoring, and making better medical decisions.

In addition to providing specialised services for the demands of physical and mental health care, they offer healthcare concierge experiences. A committed Genie may assist in connecting elders to all they may require, including medical professionals, counsellors, nutritionists, and fitness instructors as well as diagnostic services and medical equipment assistance. With our professionally qualified staff also offers senior home care services.

Silver Genie Private Limited is a Private incorporated on 21 July 2020. It is classified as non-govt company and is registered at Registrar of Companies, Delhi. Its authorized share capital is Rs. 10,00,000 and its paid-up capital is Rs. 2,17,400. It is involved in Human health activities.

Silver Genie Private Limited's Corporate Identification Number is (CIN) U85110DL2020PTC366567 and its registration number is 366567.

Silver Genie strive to improve health and provide care for customers to make their everyday life more comfortable and care-free everyday life.

They are there to bridge the gap between the healthcare needs of our elders and render service to empower independent life for them. They aim to be an end-to-end healthcare concierge and management partner. With their support, both the elders who live by themselves, and their loved ones who are away, can live with a peace of mind. They promise a Silver Genie experience that’s driven by compassion to improve the well-being of our elders, competence in technology to bring convenience in what they do, continuity of a reliable physical presence, and consistency in times of need. From attending to

medical emergencies to maintaining medical records, and procuring medicines to scheduling periodic health check-ups, their mission is to build a solid healthcare support system for every senior citizen.

They are building a comprehensive solution that aims to promote an empowered lifestyle for seniors, through a trusted and reliable healthcare management ecosystem.

Combining the latest in technology, best of resources, their rich network of clinical experts, and our unwavering work ethics, they have come up with a unique healthcare management product. Their solution focuses to be a one-stop destination for wellness of seniors.

From doctor's appointments, buying medicines, booking lab tests, to being a part of a vast community of similar-minded individuals, we strive to improve your health outcome through our product. At the core of our product is a dedicated concierge, Genie, who will be your conduit of care and wellness.

1.1 Mission Vision and Values of the organisation-

MISSION

We want to empower the elderly to live a well-managed and independent life, especially if they live by themselves. Our aim is to help them navigate the healthcare system with ease. We will bridge the gap between you and your loved ones, by ensuring we support you.

We are your trusted healthcare concierge, at every step in your healthcare journey.

VISION

Our vision is to enable the elderly to manage their healthcare needs and empower them to live better. Combining technology, clinical expertise, human attention and compassion, all on one platform, we'll make it easier for them to stay healthy. We are committed to delivering exceptional healthcare management support to the senior citizens of our country.

Quality

Our rich network of clinical experts, prompt response teams, and a dedicated concierge for the elderly, enables us to deliver on our promise of quality care and a premium experience.

Trust

You can trust us with your health and related needs. Our trained and certified concierge will make sure to understand you and create personalized solutions to manage your health

Transparency

At SilverGenie, technology has enabled us to deliver real-time updates and notifications. We'll ensure every activity is visible and trackable to you and your loved ones at all times.

1.2 Phygital Model of SilverGenie-

PROJECT REPORT

2.0 ABSTRACT

Introduction

The qualitative research study is going to conduct which aims to explore the post-intervention experiences of elderly diabetic patients who have undergone a specific intervention to lower down the effect of diabetes. The study seeks to gain insights into the perceptions, challenges, and benefits experienced by these individuals.

Method

Semi-structured open-ended interviews will be conducted, allowing participants to share their experiences, challenges, and benefits after the intervention. Probing questions will be used to explore various dimensions of their post-intervention experiences. Inclusion criteria would be group of elderly diabetic patients with hypertension above the age of 60 year who have recently undergone a specific intervention. the data analysis was done manually through conventional qualitative content analysis method.

Expected outcome

The findings from this research will contribute to a deeper understanding of the impact of interventions on elderly diabetic patients and inform future interventions to enhance their health outcomes and quality of life.

Result

The results of the study were divided into different themes based on the questionnaires and responses which we got during interviews in total 5 themes were derived and describe in detail.

Conclusion

Research study aims to provide valuable insights into the post-intervention experiences of elderly diabetic patients, contributing to the existing literature on diabetes management in this population. The findings will inform healthcare providers, policymakers, and researchers in developing tailored interventions and support systems to address the specific needs and challenges faced by elderly diabetic patients, ultimately improving their health outcomes and overall quality of life.

3.0 INTRODUCTION

Research is the first and most crucial step in improving the future for diabetic people and lowering healthcare expenses. Diabetes is a potentially epidemic health problem that is quickly spreading throughout low and middle-income nations like India.[3,7]

Obesity, diabetes, and pre-diabetes are a triple threat in India. Type 2 diabetes mellitus has been linked to the initiation and development of unhealthy eating patterns and physical inactivity.[1]

The National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases, and Stroke (NPCDCS) was introduced by the Indian government in 2010. As of March 2017, 390 (55%) of 719 districts have non-communicable disease Cells small centres that assist with planning, monitoring, and reporting operations.[2]

According to projections, India will have 69.9 million cases of diabetes by 2025, with the great majority of cases still going misdiagnosed [(3, 4).] This is primarily caused by food changes and inadequate or no physical activity, which alters the physiological environment and causes overweight or obesity as well as diabetes. By 2025, it is necessary to stop the rise in diabetes and reduce premature deaths from NCDs by 25%, according to the Non-communicable Disease (NCD) Monitoring Framework targets (10) and indicators (21) set by the Ministry of Health and Family Welfare, Government of India, which were adapted from the Global NCD framework (World Health Organisation). [(5, 6)]

The risks of non-communicable diseases (NCDs), which are a growing global burden and include cardiovascular disease, diabetes, and hypertension, are correlated with dietary practises and physical inactivity. Obesity, hypertension, and cardiovascular risk factors are increased by consuming excessive amounts of dietary energy, salt, and animal fat, but these risk factors are decreased by eating enough fruits and vegetables.[8]

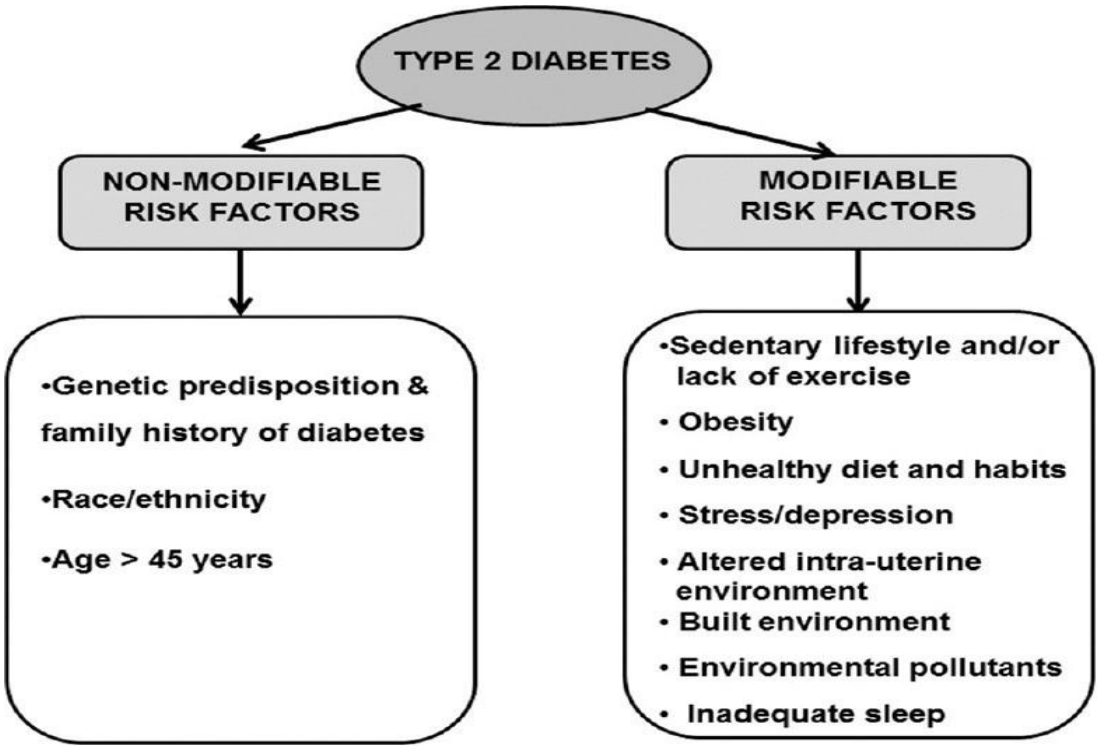
Recent years have seen an epidemic of these NCDs. NCDs are becoming the world's top cause of mortality and a significant public health problem for emerging nations. In 2012, NCDs were responsible for 68% of all fatalities worldwide, or about 38 million individuals. If no adequate steps are taken, it is predicted that this number would increase to 52 million by 2030.[9] These NCDs will be overburdened by the added stress.

India has a double burden of malnutrition noncommunicable diseases (NCD) linked to excessive energy, fat, salt, and sugar consumption and low levels of physical activity are increasingly common, especially among urban populations. Dietary deficiencies in energy and nutrients are common, especially among poorer, rural populations.[10,11,12]

The treatment of diabetes and hypertension can be achieved through lifestyle changes that alter dietary habits and physical activity levels. The management of diabetes and hypertension requires a change in lifestyle and non-drug interventions such as health education, weight loss through regular exercise, and dietary changes. The cornerstone of managing hypertension is changing one's diet and lifestyle, however many researches on the topic typically simply look at medication therapies. In order to compare and evaluate the effects of health education on life style modification (diet modification and physical activity) on control of blood pressure, module-based community interventions were conducted with the following objectives.[13]

A nutritious diet helps lower NCD risks. Regular fruit and vegetable eating lower the incidence of colorectal, stomach, and cardiovascular disorders.[14] After a certain amount—around five servings of fruit and vegetables per day—the risk of all-cause mortality did not continue to decline.[15] The vast majority of people do not eat the required five servings of fruit and vegetables per day in numerous nations throughout the world. According to estimates made in DALYs for 2015, a low consumption of fruits and vegetables contributed to 4.7% of the world's illness burden.[16]

HbA1c testing is an essential step in the management of diabetes. HbA1c Glycated haemoglobins are haemoglobins that have a sugar moiety connected to them. Its value displays a person's glycaemic state for the last two to three months.20 The value of HbAlc in all diabetics should be kept under 7%, under the American Diabetes Association (ADA) Guidelines 2007.[21] The only factor affecting HbA1c is blood sugar levels. Other factors besides blood sugar can influence HbA1c. Because it successfully lowers HbA1c, is well-tolerated, has a somewhat positive effect on body weight, and is very cost-effective, metformin is regarded as the first-line treatment for T2DM.[22]



4.0 OBJECTIVE

This qualitative research study aims to explore the post-intervention experiences of elderly diabetic patients who have undergone a specific intervention (e.g., lifestyle modification, medication management, steps tracking through Fitbit, diet consultation, dedicated health coach assigned for every patron, self-care education) to lower down the effect of diabetes. The study seeks to gain insights into the perceptions, challenges, and benefits experienced by these individuals following the intervention, with a focus on their overall well-being and quality of life.

5.0 METHODOLOGY

ethical clearance was obtained by Institution, an investigation into the post-intervention experiences of senior diabetic patients was done through qualitative research.

5.1 Study Design- Semi-structured open-ended in-depth interviews was conducted through face to face and telephonically, allowing patron to share their personal experiences, challenges, and benefits after the intervention which was made previously to lower down the effect of diabetes by adopting healthy life style and focused on right diet in elderly. Probing questions will be used to explore various dimensions of their post-intervention experiences.

5.2 Inclusion/ selection criteria-group of elderly diabetic patients with hypertension above the age of 60 year who have recently undergone a specific intervention.

5.3 Exclusion criteria- Patron below the age of 60 years were not include in the research study.

5.4 Ethical clearance- This study will uphold the ethical research standards and make sure that the participants' rights, welfare, and privacy are protected. To ensure this, no

demographic and sensitive data of patients were disclosed. This study is conducted for the research purpose only

5.5 Data Collection- data collection started once after getting the ethical approval from silver genie to use their patient data. The in-depth interviews conducted between May and June 2023 in Hindi and English language 2 to 3 members were interviewed once at a time through telephonically. The complexity of the descriptions was compatible with the objective of the study, and the interviews gave useful and relevant data. This sample size therefore satisfied theoretical saturation and was acceptable for this study. Relevant approach was used to conduct analysis along with the information gathering to determine "Patrons experiences."

The method was followed, and informed consent was obtained for both research participation and the consent to record the dialogues in order to adhere to the ethical standards for research.

6.0 DATA ANALYSIS

The data analysis was done manually through conventional qualitative content analysis method. With this approach, data collection and analysis were done simultaneously. In that method, labels and categories were naturally and directly derived by using the raw data. First, a script from the recordings of each interview's words, tone of voice, pauses, and giggles was created. [18]

By examining the similarities and differences between the codes, the data were categorised, and subthemes were developed. For consistency or reliability, all raw data (including interview texts, field notes, and recorded talks) was retained.

7.0 RESULT

The study includes, 20 participants and undergone in-depth interviews one on one over phone call. The average time duration of each interview was about 30- 40 minutes long. A precise participant demographics table is formed to assure transferability. [table 1]

If we look into the previous data and comparison was drawn in which it was found that a statistically significant reduction in the mean of FSB and RBS was seen in those who are following the module-based intervention on lifestyle, physical activity, diet. [Table-2]

The results of the study were divided into different themes based on the responses which we got during interviews in total 5 themes were derived and describe.

VARIABLE		**FREQUENCY**
Gender	Male	15
	Female	05
Age		Above 60
Co-morbidity		Hypertension
Undergone diabetes intervention		yes
Duration of diabetes diagnosed		Between 20-30 years

Table-1: Demographic Data

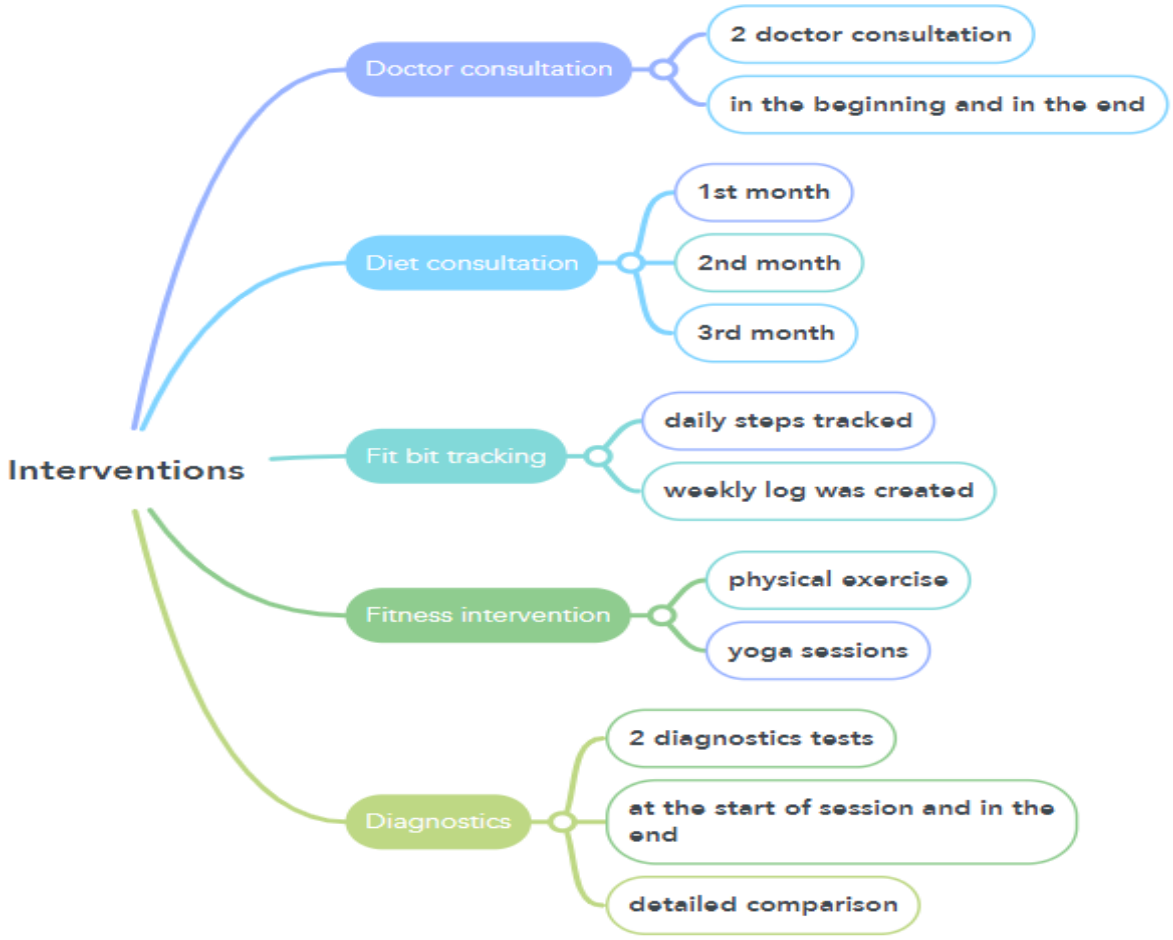


Fig: details of 3 months intervention given to participants (the base of our study)

UNITS	DECREASED RATIO
Average decrease in HbA1c	0.11%
Average decrease in glucose fasting	0.5315 mg/dL
Average decrease in cholesterol	3.9075 mg/dL
Average decrease in triglyceride	0.55 mmol/L
Average decrease in HDL	-0.38 mmol/L
Average Decrease Phosphorus	0.1mg/dL
Average Decrease Potassium	-0.382 mmol/L

Table 2: Decreased overall percentage in diagnostic reports after intervention in 20 participants. The average impact of comprehensive intervention on Blood sugar level among study subjects (detailed comparison of before and after diagnostics report).

7.1 Theme 1- Clinical data collection

The findings and relevant study sample was collected manually using patient health records (PHR) in which out of 56 participants who undergone diabetic interventions last year i.e. in 2022. 20 were selected for further study because selection criteria were patients above the age of 60 years, to look into the effect of intervention such as diet, regular walking and monitoring blood sugar level will lower down the level of HbA1c or not. Out of these 20 patrons 5 were females and 15 males who undergone 3-month personal interventions such as two doctor consultation to manage the medications and understand the proper dosage. Two diagnostic tests before the intervention was made and after 3 months to compare and analyse the reports, two personalised diet consultation sessions were given according to the dietary habits pattern of participants, fitness session twice in a week was provided to maintain the physical activity and teaching them right yoga postures and exercise the main focus of this intervention was on walking and for steps tracking a Fitbit watch was provided in the diabetic management package, orientation of watch was given to the patrons and steps were tracked on the weekly basis. A dedicated health coach was assigned to the patrons who meet with them weekly for guidance and report back. All the data of each session was manually added at the backend of system for analysing the effects of Diabetes management program.

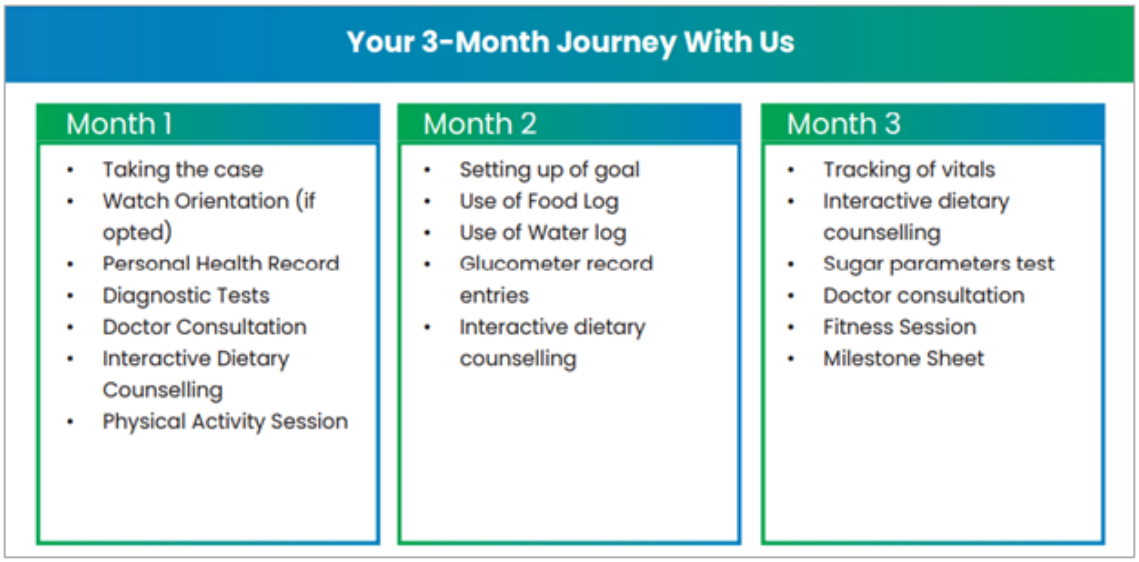


Fig: Intervention outline for the period of 3 months

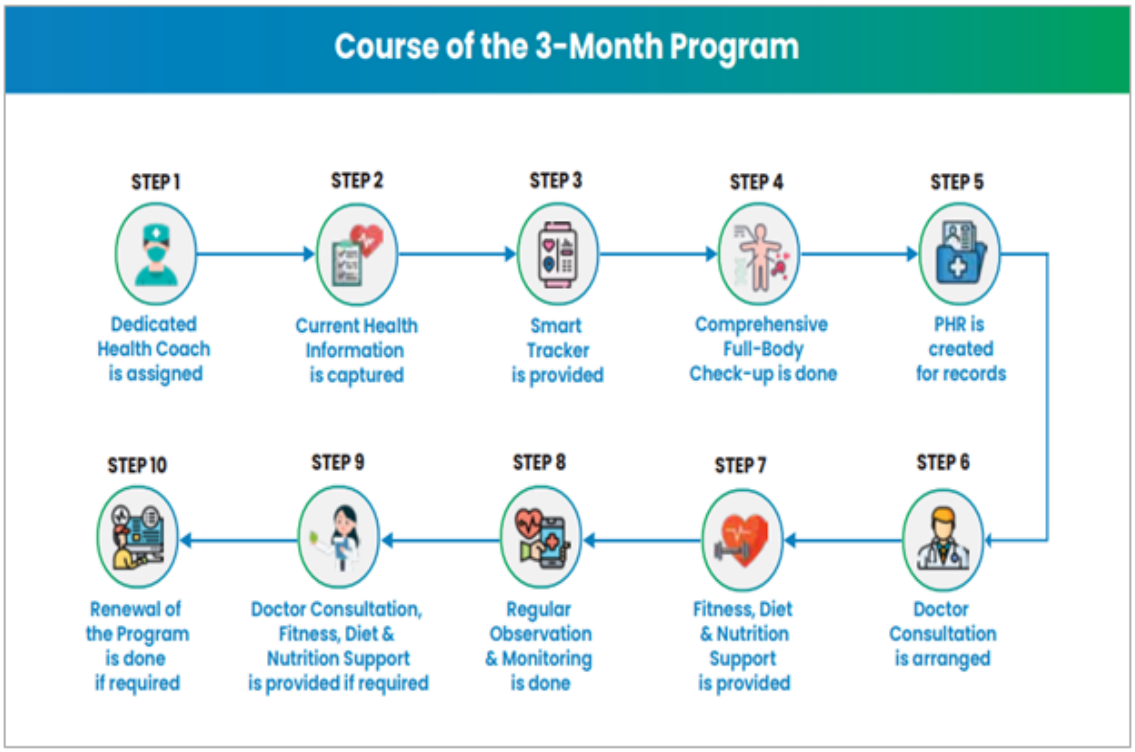


Fig: Services which covered during intervention

Further for qualitative research study the in-depth interviews were conducted telephonically the questionnaire and consent form was sent prior to the interviews to the selected participants. All the information and responses collected from the interviewee was recorded and noted down and transcribe into report.

Between 25 to 30 questions were asked during the interview and the duration of each interview was around 30 to 40 minutes. The questionnaire was divided into two parts one part contains the questions on quality of life and second part question were based on intervention. Some questions also follow the EQ-5D is a questionnaire. The five dimensions of the descriptive system are mobility, self-care, typical activities, pain or discomfort, and anxiety or depressive symptoms. There are five degrees for each dimension: no issues, minor issues, moderate issues, severe issues, and extreme issues. The patient is asked to tick the box next to the statement in each of the five aspects that best describes their current state of health. A 1-digit number that expresses the level chosen for that dimension is the result of this choice. The patient's health status can be represented by a 5-digit number made up of the digits for the five dimensions.[17]

7.2 Theme 2- Intervention Experience

Intervention experience theme is the broader and important for this research study as the responses were based on the detailed questions and answering done during the in-depth interviews. The dialogue which receive from the participants were transcribe in this study. This major theme was sub categorised in the different groups which is based on the open-ended question and answers.

Comorbidity-

'*Yes, I have hypertension along with diabetes and taking the medications for same.' Participant 12,2,4,9,10 and 16*

"I gone through angioplasty, last year" Participant 7

"I have arthritis problem along with diabetes" participant 3 and 5

"I reduce my diabetic level and now I am diabetic free" participant 14

"10 years of diabetes caused high cholesterol in my body" participant 1,6,8

Age of diabetes diagnosis-

'I don't remember the exact time but I think somewhere between the age of 35- 40' most of the participants

"I was diagnosed with diabetes at the age of 37" participant 3,5 and6

"at the age of 33 diabetes hit me, but with regular exercise I have overcome it up to a large extent" participant 14 and 19

Technology-based interventions-

Detailed Fitbit orientation was done for the steps tracking of the patrons. And the steps were monitored at the backend by health coach. A dedicated health coach was assigned to each patron for tracking report delivery and doubt clearance.

"*my watch was not working properly so I was unable to track my daily walking duration" participant 14 and 19*

"It used to motivate me to go for a 30mins walk regularly" participant 11 and 15

"I developed a habit of walking for 30mins everyday even after the completion of this programme" participant 6,12 and 18

"I used to walk for 40-50mins previously also which helped me in keeping my diabetes under control" participant 1,3, 5 and 17

7.3 Theme-3 Life style modification

Fitness session

Virtual Yoga session was given by experts twice a week, easy to perform yoga asanas were practiced keeping their age in mind to maintain their physical fitness. And for mental health yoga nidra sessions were conducted

"I get to know about different yoga asanas, which I was not aware previously" Participant 6, 8,11 and 13

"due to arthritis I was not able to do physical activity at the pace it used to do earlier" Participant 3 and 5

"performing yoga not only helped in diabetes but also provided a mindfulness experience" Participant 2,4,7 and 15

"Since It was a personalised yoga session that's why yoga expert was able to monitor and rectify the mistakes adequately, which helped me to connect better with the pranayama" Participant 6, 16 and 19

"by regularly exercise I reduced my weight" Participant 1,9, 10

"out of all the sessions yoga nidra was my favourite" Participant 12, 14

"I used to feel emptiness in life earlier but yoga filled my life with joy and happiness" Participant 18 and 20

Healthy eating

Particular diet plans were given as per their diet patterns by the nutritionist, which focuses on lowering carbs intake, increasing protein ratio, eating in smaller portions at regular schedule and having a fibre rich diet.

"As I have high blood cholesterol, this diet plan not only helped me with diabetes but also lowered my blood cholesterol level" Participant 1, 6, 8

"I never thought that taking care of these small habits would be so much helpful in diabetes." Participant 10, 17

"This diet plan was not very helpful to me but after fasting for 30 days in Ramadan my insulin intake reduced from 6units to 4 units." Participant 19

"I am very happy with this diet plan as I didn't have to compromise a lot with my regularly prepared meals." Participant 1,4 and 18

"for those 3 months of programme I was very regular with my diet but after that as no one was there to monitor I lost the track and sometimes I also skipped my meals." Participant 5 and 16

"I am a working individual, so most of the times I eat outside and it become difficult to find a suitable meal deigned specifically for diabetic patients." Participant 15 and 20

"I notices that when I stop taking rice intake in my meal my blood glucoses level not increases that much." Participant 14

Monitoring blood sugar

In the 3 months program every twice in a week Fasting blood sugar and random blood sugar was calculated and log was created to track the progress. And the regularity was maintaining, from this point we want to analyse the regularity after the program was ended and based on the responses the regularity of checking blood sugar level got lower down. Some of the transcribe responses are-

"I didn't check my blood sugar for the last 3 months." Participant 14, 2, 6, 12

"as I am on insulin my blood sugar is moderate to low so don't monitor this regularly." Participant 19

"After this session I developed a habit of checking blood sugar twice a month." Participant 3,4, 8

"my blood sugar meter is damaged from past 6 months so I didn't check" Participant 10

"I check my blood sugar and blood pressure on every Sunday." Participant 15,17, 20

Diabetes Medications

Two doctor consultation were given before the plan started and after the completion of plan to look deeper into the patient medical conditions and to understand their medications. Some patrons who have minimal level of blood sugar we tried to decreases the medication and maintain the level through life style modifications.

"The personalised doctor consultation helped me to understand the timing of tablets when to take and when not." Participant 2,4,9

"my medicine dosage was reduced and now I am diabetic free I am thankful for providing such wonderful session." Participant 14

"doctor consultation was not much helpful, I am taking 5-6 medicines daily now also." Participant 18

"it was a good session." Participant 1,3,8,16

7.4 Theme-4 Quality of life

When examine the segment of quality of life in a qualitative study, it is important to consider various aspects and dimensions that contribute to improve overall quality of life of patrons.

The EQ- 5 Dimensions, whose descriptive summary includes the five dimensions of mobility, usual activity, self-care, discomfort/pain, and anxiety/depression, were used to guide the interview questions about quality of life. There are five levels for each dimension: no problems, minor problems, moderate problems, serious problems, and extreme problems. The patient is asked to tick the box next to the most pertinent statement in each of the five dimensions to represent the state of his or her health. The result of this choice is a 1-digit number that expresses the level chosen for that dimension. The digits for the five dimensions can be combined to create a 5-digit number that describes the patient's health state.[19]

Physical Health

On the scale of 1 to 10, all (N = 20) rated their physical health on point 9. Most of the participants noted that "we are perfectly fine and healthy in terns of physical health we have no issues on that

15 out of 20 mentioned no chronic illness as such. While 5 of them stated that *"we have chronic illness but not terribly we are on medication for that Illness." Participant 2,3,6,9,12*

"I have chronic illness Blockage in a coronary artery for which I had gone for Angioplasty but Now I am fit and fine." Participant 7

Mental and emotional Well-being

To understand the current state of mental well being the patrons asked questions related to describe any type stress they are going through and contentment with the level of emotional support receive from the family.

Every participant stated the same response while discussing with them personally and most of the participants stated that *"yes! I have little bit of stress in life which is normal, everyone has problems in life but it didn't bother that much."*

By analysing everyone's response each patron is satisfied and mentally stable.

Environmental Factors

All have access to green parks for walking, exercise etc. and they are satisfied with the cleanliness and environmental conditions. There any no environmental concerns in area that affects the quality of life of participants.

"Ohh yes! We have access to big park in front of my house, I love trees and greenery, I used to walk everyday in morning and evening." Participant 5,6,12,15, 19

"Since I live in small flats, I don't have parks in surroundings." Participant 14

Freedom and safety

"Yes! I do feel safe at my homes and surroundings; my neighbours are very supportive and helped me a lot in my odd situations." Most of the Participant

"I have full freedom to enjoy my life, I follow my hobbies during my free time." Participant 17,20

"My society is very safe n terms of security and safety, they also provide emergency services in short span of time. I remembered the day when an emergency happened at my neighbours house ambulance fast service was provided which saves the life of my friend."

Participant 1,5,9,11

7.5 Theme 5- Barriers and facilitators

Some of the participants describes the issues and barriers in the intervention.

"everything is good and well executed 3 months plan for diabetic management my blood sugar level also goes down at that time, but according to me I think the cost which they are charging for 3 month course is little bit expensive and this is the reason we could not take another subscription plan, I also recommended to my friends and family member to join the 3 month program but most of them didn't joined just because of the costing of the plan." Participant 3,5, 7 and 16

"Since I lived in north-east India, and the program run by team from Delhi, it connects with me on just a call away, so for me I don't feel any barrier about the program and working." Participant 13

"I liked the program all things were perfect but the only challenge I face was that my Fitbit watch stop working in last month due to which my steps tracking was not get monitored and the issue also not get resolved." Participant 14, 19

"I never used touch screen cell phone in my life, so I am not technologically sound it always remains barrier for me to follow-up the program on virtual mode."

Participant 18

8.0 DISCUSSION

The results of this study can aid in our understanding of how senior individuals perceive real-life situations. Every topic identified refers to the distinctive elements of lived experiences.

T2DM and its associated problems place a significant burden on health around the globe, and there are currently no viable treatments available. The interplay of genetic and environmental risk is the primary cause of the epidemic of diabetes. There are other additional causes of the disorders.

Physical inactivity is currently regarded as one of the largest global public health issues.23 Physical activity has been shown to contribute to a 30–50% reduction in the onset of type 2 diabetes.24 Because it merely facilitates weight loss, physical exercise therapies can enhance glucose tolerance and lower the risk of T2DM 25. The majority of the population should be open to participating in any kind of physical activity. For instance, walking, the most common form of exercise, has been demonstrated to reduce the relative risk of T2DM by 60% when done for 150 minutes per week as opposed to 60 minutes per week.[26] A popular self-regulatory method to successfully promote increased physical activity is to maintain a daily step count. For those who find it challenging

According to epidemiological studies, dietary factors may either raise or decrease the chance of developing diabetes. Excessive consumption of refined grains, sugar-sweetened beverages, red and processed meat, and alcohol are dietary factors that may increase the risk of developing diabetes, while consumption of whole-grain cereal, vegetables, dairy, legumes, and nuts has the opposite effects, regardless of changes in body weight.[27]

An imbalance between energy intake and expenditure is the fundamental cause of T2DM, making obesity one of the most significant risk factors for the disease. In order to minimise the risk of obesity, the WHO has identified a number of lifestyle-improving variables, such as increasing dietary fibre intake, limiting the consumption of foods high in calories but low in micronutrients, and engaging in regular physical activity. According to the DPP study, each kilogramme of weight loss is associated with a 16% reduction in the onset of T2DM, suggesting that weight loss may have an impact on diabetes incidence. [28,29,30]

Intervention helps in following improvement-

Better Insulin Sensitivity: A healthy diet, frequent exercise, and regular walking can improve insulin sensitivity. Lower blood glucose levels result from the body becoming more successful at using glucose from the bloodstream. This happens as the body gets more sensitive to insulin.

Improved Glucose Control: A healthy diet that is balanced and suitable, together with frequent exercise, can help control blood sugar levels. Following dietary recommendations consistently and getting regular exercise can help older adults maintain better glucose control and lower their risk of hyperglycaemia (high blood sugar).

Weight management: A healthy diet and consistent exercise can help. Blood glucose levels can be positively impacted by maintaining a healthy weight or losing weight (if necessary). Reduced insulin resistance and improved general metabolic health are effects of weight loss.

Increased Physical Activity: Fitness classes and walking advice promote regular exercise. Exercise promotes the absorption of glucose by muscles, increasing energy

expenditure and lowering blood sugar levels. Additionally, it promotes cardiovascular health and general fitness.

Reduction of complications caused by diabetes: Implementing lifestyle changes, such as a healthy diet and exercise routines, can help lower the risk of diabetic complications. These lifestyle adjustments may help lower blood pressure, cholesterol levels, and cardiovascular risk factors, which may lower the possibility of complications including heart disease, stroke, and renal issues.

Enhanced Quality of Life: Seniors may enjoy an enhanced quality of life as a result of proper blood glucose management. Blood sugar levels that are stable can lessen diabetes symptoms like weariness.

Therefore, we observe very personal experiences of individuals as well as certain bad things that they emphasis in interpersonal relationships. Numerous reports in the current study noted attitudes of benefit and satisfaction towards this programme.

9.0 RESEARCH LIMITATIONS

The research study's goal is to thoroughly examine the experience of type-2 diabetes elderly people who had interventions. Since our inclusion criterion was participants above the age of 60, the current study is restricted to documenting the experiences of all people who underwent intervention experience. As a result, the present study concentrated on a particular environment and sample, and these constraints prevent generalising the results to other contexts. By identifying their concerns, challenges, strategies, and the effects of the decisions they face at the time of intervention, this study identifies key themes that experts can use to take effective action in providing better target lifestyle interventions to lower elderly people's blood sugar levels and improve their lives.

10.0 CONCLUSION

This study is an in-depth investigation of the real-life experiences of elderly during the diabetic management intervention program. According to the findings of this study.

This study was conducted to know the individual experience during the session and to find out that does this program is really helpful to lower down the blood sugar level. While doing the in-depth interviews, we got to know that when monitoring is doing with proper scheduling and major focusing on diet plans, walking, measuring blood sugar level, taking medicine at right time all these types of life style intervention helps to lowering the blood sugar level. But in most of the post session interviews it was noticed that no regularity was followed by most of the participants after the program was ended which results in no decrease in blood sugar level. While on the other hand some participants are there who still flows same routine as it was during the 3 months program, they follow right diet plans, walking 30 to 40 minutes daily, reduces the sugar intake and maintain their blood sugar level not only with medicines but also with lifestyle intervention.

So, we can conclude that type two diabetes is a lifestyle disorder and can be maintain easily by changing in food habits, regular physical fitness. By modifying the lifestyle patterns not only decrease the blood sugar level but also effectively reduce the other cardio vascular disease, balanced hypertension etc.

11.0 RECOMMENDATION

Customised Meal Planning: During the online sessions, provide customised meal planning advice. Give helpful advice on how to choose nutritious foods, how to regulate portions, and how important a balanced diet is for controlling blood sugar levels. To provide personalised dietary advice, think about working with a licenced dietitian.

Include specific exercise recommendations catered to the requirements and capabilities of senior people in your fitness and exercise advice. Give advice on safe workouts that can be performed at home, such as walking, stretching, strength training, and chair exercises. Encourage regular exercise since it can lower blood sugar levels.

Stress Reduction Methods: Participants should be made aware of the connection between stress and blood sugar levels. Teach relaxation, mindfulness, and stress-reduction techniques as well as deep breathing exercises. provide resources and suggestions.

The use of technology to remotely measure and monitor participant blood glucose levels is known as remote monitoring and feedback. Encourage participants to utilise home glucose monitors and to understand how to interpret the results. Give them specific feedback based on their readings and constructive criticism.

Peer Support and Engagement: Use online channels to promote a feeling of community and peer support. Create opportunities for people to interact, exchange stories, and encourage one another. Establishing online forums or support groups where users may share advice is something to think about.

Clear Communication and Accessibility: Make sure that older participants can use the online sessions and materials. Use plain language, provide visuals, and, if necessary, offer technical assistance. Give participants access to session summaries or recordings so they can review them afterwards.

Collaborative Approach: Include diabetes educators, doctors, nurses, and other healthcare experts in the online sessions. Together, you can give participants accurate information, respond to their inquiries, and take care of any issues they might be experiencing. The efficiency of the virtual sessions may be improved by this interdisciplinary approach.

Establishing a framework for regular follow-up and monitoring of participants' progress will help. Plan regular virtual check-ins to gauge their adherence to the advice, discuss any difficulties they may be having, and offer further direction and assistance as necessary.

Evaluation and Continuous Improvement: Conduct regular reviews of the virtual meetings to gauge their success and get participant input. Use this input to ensure that the sessions' content, structure, and delivery match the unique needs of elderly people with diabetes by making the required changes and enhancements.

12.0 DECLARATION

Ethics approval and consent was given to participate before taking the interviews, all interviews were conducted personally one on one through phone call and demographic data was all the sensitive data remain confidential and won't be disclosed anywhere, this study was conducted with the research purpose only.

In order to uphold the ethical standards of research, the protocol was followed and informed consent was sought for both participation in the study and the right to record the conversations. Each participant verbally approved and signed the written informed consent that was collected.

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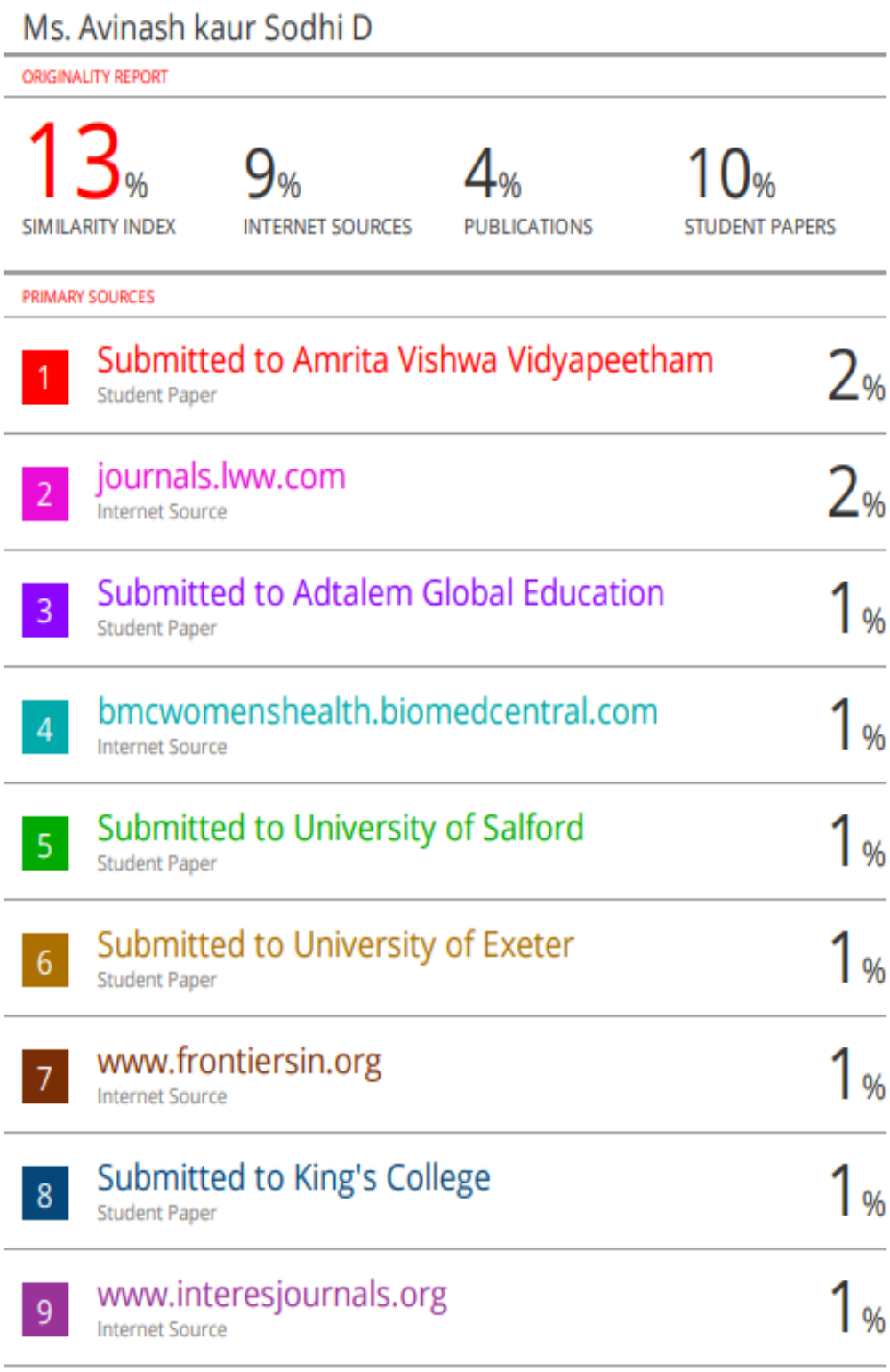

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