



PATIENTS EXPERIENCE AND SATISFACTION WITH A NURSE-LED DIABETES CLINIC SERVICE SET UP BY THE ORGANISATION OF SIERRA LEONEAN HEALTHCARE PROFESSIONALS ABROAD (TOSHPA) AT THE BO GOVERNMENT HOSPITAL IN SIERRA LEONE

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ABSTRACT: *Patient experience and satisfaction are two important quality measurement indices used to evaluate services especially in healthcare settings. In December 2023, a nurse-led diabetes clinic was inaugurated at the Bo Government Hospital (BGH). This patient satisfaction survey reports on the experiences and satisfaction with care received at the nurse-led diabetes clinic by a representative sample of the attending patient population. **Methods:** This was a cross-sectional survey. Data was collected via questionnaire. The participants were consenting adults, over the age of 18 years. Females and males were equally allowed to participate in the survey. A total of 134 fully completed questionnaires were returned and included in the data analysis. **Results:** The findings in this survey showed that the participants recorded high positive rating scores for various patient satisfaction parameters, including satisfaction with quality of care received, cleanliness/comfort of the clinic facility, friendliness/compassion of clinic staff, time spent with clinic staff, diagnoses, treatment plans, usefulness of the advice received and confidence in following advice received. **Conclusion:** The new BGH nurse-led diabetes clinic appears to be well accepted by the patients attending BGH and has quickly established itself as a valuable service for diabetes care. The nurse-led clinic approach appears to add good value to patients' diabetes care service experience at the Bo Government Hospital in Sierra Leone.*

KEYWORDS: Bo; Diabetes; Clinic; Nurse-led; Midwife-led; Patient satisfaction survey; Sierra Leone.



INTRODUCTION

Patient experience and satisfaction are two important quality measurement indices used to evaluate services especially in healthcare settings. Though often used interchangeably, the two are different. While patient experience relates to whether something that should happen in the healthcare setting actually happened and/or how often it is happening, patient satisfaction relates to whether a patient's expectation about a healthcare service encounter were actually met (Bull, 2021; Friedel et al., 2023). Two patients receiving the same healthcare service may have different expectations of how that service is supposed to be delivered. Hence they can provide non-identical satisfaction ratings because of their differing expectations. It is therefore very important to assess patients' satisfaction of health care services regularly (at least yearly but more frequently) as a routine. The patient satisfaction survey is the most commonly used method to gauge patients' opinions of services they are receiving in healthcare settings. These surveys can be conducted post-visits via face-to-face interviews, in paper form, voice call or SMS messaging, email communication and more recently through online platforms following agreed guidelines (Banda et al., 2023).

In December 2023, through a collaboration between TOSHPA and the Sierra Leone Government (SLG) with financial funding from the Burdette Trust for Nursing, UK, a nurse-led diabetes clinic was inaugurated at the Bo Government Hospital (BGH) as previously reported by Momoh and Rogers et al. (2024). It is a first of its kind clinic at BGH as healthcare services at this large regional referral hospital in southern Sierra Leone have always been managed through doctor-led services.

This patient satisfaction survey aims to gauge the experiences and satisfaction of a representative sample of patients at the nurse-led diabetes clinic at the halfway point of the project. To our knowledge, this is the first published patient satisfaction survey of an ongoing care service at BGH.

METHOD

This was a cross-sectional survey aimed at exploring patient experiences and satisfaction with the new nurse-led diabetes clinic at BGH. Data was collected using a piloted questionnaire created using Microsoft Forms[®]. TOSHPA members, all nurses and midwives thoroughly reviewed the questionnaire to ensure clarity. The final draft was tested on five patients to check for consistency in responses. Following this rigorous testing, data collection proceeded with patients either self-completing their questionnaire or receiving assistance as needed.

Survey Population

As a new service, TOSHPA wanted to capture the views of a representative sample of the attending patient population to the BGH nurse-led diabetes clinic. Though a sample size calculation to determine this representative population was not done, a minimum convenient target sample size of one hundred (100) was initially agreed on as a suitable target to be collected between March – May 2024. The inclusion criteria were prospective participants being adults (above the age of 18 years), had visited the BGH diabetes clinic in person, received care as a patient from a dedicated TOSHPA or BGH nurses and consenting to participate. Females and males were equally allowed to participate in this survey. By the deadline date, a



total of one hundred and thirty four (134) fully completed questionnaires were submitted/received and included in the data analysis.

Ethical consideration and approval

It is important to adhere to agreed ethical principles as a commitment to protecting the dignity, rights, safety and welfare of research participants. The patient satisfaction survey was discussed with the Bo Government Hospital Management Team, who reviewed the survey documents including the participants information sheet and piloted questionnaire and approved the survey. They categorised the survey as a service review audit and that formal ethics committee clearance from BGH or the Sierra Leone Ministry of Health was not required but obtaining informed consent from all the participants was required prior to recruitment and the hospital Matron will provide oversight.

Survey participants' and the recruitment process

This survey was restricted to the nurse-led diabetes clinic patients. This clinic is situated within the grounds of the Bo Government Hospital, Sierra Leone. The survey was advertised on the clinic's bulletin board and all participants were also verbally informed about the ongoing survey at their clinic visits/appointments. Participation was entirely voluntary, and all patient participants were reassured that non-participation in the survey would not affect the care they will receive from the clinic in any way. The survey documents including paper copies of the participants' information sheet and the study questionnaire with consent statement were made available to potential recruits. A generated QR-code link to the online survey questionnaire was provided to participants. Those participants who were unable to complete the questionnaire by themselves due to IT illiteracy or other reasons, were supported by a trained survey assistant who translated the questionnaire in the participant's language and entered participant's choice on the online form for submission. Creole, a widely spoken Sierra Leonean lingua franca, Mende and Temne were the languages used. A participant could only submit one questionnaire into the survey.

Data protection considerations

The participants' personal information were treated in strict adherence to the BGH patient data management policy and the UK General Data Protection Regulation (GDPR, 2018). Limited biographic characteristic information was requested/collected on the questionnaire including the participants age (in years), gender (female, male or preferred not to say) and diabetes status (Type 1, Type 2, Gestational or Don't know). No names or dates of birth were requested or collected. To maintain anonymity and prevent the survey team members from contacting the participant to exert any undue influence on them, when a participant submitted a completed questionnaire online, the form was automatically deposited into a secure password-protected folder on a multi-factor authentication (MFA) secure storage platform at Microsoft OneDrive without any link or contact with the participant.



RESULTS AND DISCUSSIONS

The submitted data in Microsoft® Forms was downloaded as an Office 365 Excel file and collated. The summarised results of the patient satisfaction survey data are displayed in **Tables 1 - 3** and **Figure 1** below. The various variables were categorised, and their frequencies of occurrences and individual percentages were calculated. The participants' biographical characteristics are summarised in Table 1. Prospective participants were required to give their consent by answering 'YES' or 'NO' to the survey question "Do you consent to take part in this patient satisfaction survey?." Those who answered NO were excluded and did not proceed with completing the survey questionnaire. All the participants, included in this survey answered YES to the consent question.

Table 1: Survey population characteristics

Variable	Category	Frequency (n=134)	Percentage (% = 100)
Consent to participate	Yes	134	100
	No	0	0
Gender	Female	110	82
	Male	24	18
	Prefer not to say	0	0
Age (years)	18 - 30	59	44
	31 - 40	14	11
	41 - 50	19	14
	50 - 60	18	13
	>60	24	18
Knowledge of diabetes diagnoses	Yes	34	25
	No	100	75
Knowledge of the type of diabetes you have.	Type 1 diabetes	0	0
	Type 2 diabetes	32	24
	Gestational diabetes	0	0
	Don't know	102	76

The participants' ages ranged from 18 – 76 years with a median age of 35 years. The ages were categorised into five convenient age groups, the proportional representations are displayed above. This showed that 55% of the participants were in the 40 years and below age group while the remaining 45% were above 40 years. There were a significant number of antenatal female participants, most below the age of 40 years. Pregnancy is a risk factor of being diagnosed with gestational diabetes. Age is also an important risk factor for Type 2 diabetes. Studies suggest that the prevalence of Type 2 diabetes rises with increasing age with most



people receiving their diabetes diagnosis when above 40 years of age and peaking in the older age group of 45 - 64 years (Centers for Disease Control, US, 2024; Motala, 2022).

The gender-disaggregated demographics of the participants showed that more females 110/134 (82%) participated in the survey than males 24/134 (18%). One of the reasons for this is because of an antenatal clinic located close to the newly established TOSHPA nurse-led diabetes clinic. All pregnant women, including a sizable number of teenage pregnancies attending the antenatal clinic are now signposted by midwives to the nurse-led diabetes clinic where they can have their blood sugar monitoring tests, blood pressure and body weights recorded for free. Prior to the establishment of the diabetes clinic, all such women would have to pay a small fee for capillary blood glucose tests and those who cannot afford the fees avoided taking this vital pregnancy monitoring test.

Another reason is that there may be more women than men attending BGH seeking medical help for ambulatory conditions. Women and men are known to engage with healthcare services differently, with more women tending to seek healthcare support quicker and more often as compared to men for certain conditions including diabetes (Mesa, 2018). Also, men and women generally employ different strategies when adopting or engaging with a new innovation like a nurse-led clinic especially in low-income countries where nurses work is situated in a rigid hierarchical healthcare delivery arrangement with nurses ascribed a lower status compared to medical doctors (Balas & Chapman, 2018). Men may prefer visiting and being seen in a doctor-led clinic. The stages of diffusion of adoption of innovations that was initially developed by Rogers (2003) for Rural Sociology but now widely adopted in other disciplines including healthcare projects identified 5 types of innovation engagement - 'innovators, early adopters, early majority, late majority and laggards'. As the BGH nurse-led diabetes clinic is a new healthcare service innovation, the female patients have responded positively as innovators, early adopters and are in the early majority group, attending and making good use of the services provided at the nurse-led diabetes clinic at the time of this survey.

The results showed that there was a significantly high percentage of the lack of knowledge about diabetes among the participants, with 75% reporting having no knowledge of their diabetes status though 32 participants knew they had Type 2 diabetes. Gestational diabetes is poorly understood and due to lack of recommended diagnostic facilities, this pregnancy related condition is not routinely investigated. The general understanding of the causes, symptoms and treatment for diabetes in sub-Saharan countries is varied. In addition to the known natural causes of the disease, belief in supernatural causes also abound in these communities (de-Graft Aikins et al., 2019). In Sierra Leone, the knowledge of the causes and symptoms of non-communicable diseases including diabetes is at best inadequate and often attributed to witchcraft or sorcery (Idriss et al., 2020). The belief in the healing powers of traditional healers (who are also known locally as '*native doctors*') remains very strong in many communities and they are frequently consulted first for conditions that people do not understand. The traditional healers are quick in diagnosing their consulting patients as being bewitched or cursed by *evil spirits* and proffer alternative remedies to neutralise the spells of the *witches* or *evil spirits* that are causing the problem. Thus, many patients are inadvertently prevented from going to hospitals to seek clinical investigations, diagnosis or treatment (Hongoltz-Hetling & Seaman, 2015). The lack of accessible clinical diagnostic facilities or the money/ability to pay for medical tests where they are available is limited, compounding the problem.



Cultural, religious, spiritual or traditional beliefs and practices can impact on health behaviours, outcomes, accessing healthcare services and decision making regarding medical treatment (Gov.UK, 2023). To highlight some examples of patients' beliefs and held views, a poorly managed and non healing chronic diabetic foot or leg ulcer may be considered as a '*dance platform for witches*,' believed to be the reason preventing the ulcer from healing. Similarly, erectile dysfunction, a complication in men with diabetes is often attributed to witchcraft and instead of seeking for hospital treatment, these male patients consult the traditional healers for divination, treatment with herbal remedies or charms. The emergence of faith healers has added another level of intricacy to managing NCDs as patients are preferring to consult religious faith leaders who prescribe fasting and/or prayers instead of seeking for advice or treatment at clinics or hospitals (Peprah et al., 2018). With such a high reported prevalence of poor understanding or knowledge on diabetes, there is a need for an expanded patient education at hospitals, clinics and in the community coupled with mass communication campaigns on radio and TV programmes to dispel the unhelpful myths or misinformation around diabetes. Consistent and targeted education in the local languages coupled with well-funded healthcare clinics will ensure that patients receive the correct diagnosis and information on how to properly manage diabetes (self-care and seeking hospital/clinic advice).

Satisfaction with the physical facilities and appointments.

The summary of the participants' responses on their various experiences and satisfaction with the quality of the physical facilities at the BGH nurse-led diabetes clinic are displayed in **Table 2**. A health clinic is defined as a centre or unit which provides a particular kind of medical treatment, advice and/or other community services to patients (World Health Organisation, 2024). The scope of the nurse-led diabetes clinic is ambulatory outpatient care in the hospital or community in which it is established catering for both healthy and unwell. Generally, clinics do not offer overnight patient stay though patients can be admitted from a clinic into a hospital ward. Patients will normally need to schedule an appointment to visit the healthcare practitioner at the clinic, but others can have a walk-in policy. Many clinics are located within hospitals, but they can also be set up within communities in places like in churches, mosques, schools and other places where they can be easily accessed by the patients. The healthcare building/structure where a clinic is located plays a significant role in delivering the healthcare services and outcomes including how patients perceive service quality based on suitability, cleanliness, accessibility, patient experience, value for money and risk mitigation.

The BGH nurse-led diabetes clinic is located in the grounds of Bo Government Hospital, near Ward 8, which is a children's ward. Prior to the diabetes clinic opening, the facility was used as a stroke care day unit but with the temporary closure/suspension of the stroke care service activities, the unit became derelict. One of the constraints in low-income countries is the poor maintenance of healthcare facilities (Lewis et al., 2023). At the BGH, the issue is complicated by the limited availability of space for clinics, over reliance on international donor partners to provide funds for repairs, chronic lack of electricity or running tap water, inadequate laboratory facilities and a poorly stocked hospital pharmacy/dispensary. The space offered to TOSHPA to establish the nurse-led clinic was not fit for purpose. Hence TOSHPA had to provide the required funds for a significant refurbishment to be carried out to upgrade the facility. The refurbished clinic consisted of a main waiting area with benches, chairs and tables; a clinical room which is used for measuring patients' vital signs including weight, height, waist circumference, capillary blood glucose and HbA1C; and a consulting room which also serves as an office. On cleanliness and comfort of the diabetes nurse-led clinic facility, all participants,



134/134 (100%) gave a good rating with no recorded poor or fair score for this survey question. This positive rating shows that the refurbished location met the participants expectations and demonstrates that the diabetes clinic facility compared well/better to the status of other clinic facilities within the BGH.

Beyond the diabetes nurse-led clinic, TOSHPA has 'adopted' the nearby Ward 2, which is a 22-bedded medical ward and modernised it to a good standard with the beds repaired, new mattresses, beddings and bed partitioning to promote patient privacy or infection control within a Nightingale ward lay-out setting. The ward adoption arrangement has allowed TOSHPA to re-equipped Ward 2 with clinical equipment including glucometers, thermometers, sphygmomanometers and pulse oximeters to aid monitoring of the patients (TOSHPA, 2024). Those diabetes patients that would require inpatient treatment or overnight hospital stay are admitted to and managed on Ward 2.

Waiting times either for a scheduled appointment inviting patients to come to the clinic or the length of time spent in the clinic before been seen for ambulatory care services like those provided in nurse-led clinics can negatively or positively affect patient reports of satisfaction with the service (Toubenyere et al., 2023). Generally, longer waiting times have been known to cause restricted access to the service and affect the willingness of patients to return to the clinic for follow up advice/care which negatively impacts on the care outcomes for the patient (McIntyre & Chow, 2020). Improving the speed of through-put of patients in clinics and providing appointment times which take into consideration the wider demands on the patient time has the potential to improve patient experience and satisfaction of the service. For example, in the UK, adjusting visiting times that accommodates employed workers shift patterns have been known to improve attendance to outpatient clinics for both female and male patients (Ellis et al., 2022; Baker, 2024).

The BGH nurse-led clinic adopted a flexible walk-in strategy which allows patients to manage their own clinic visiting time schedules. The operational opening times agreed with the BGH Management Team was 9am – 5pm during weekdays. Clinic staff are punctual, available in the clinic by 8.30am to ensure the clinic is cleaned, equipment checked and set up, ready to start seeing patients on time. Also, the clinic is opened on public holidays for screening and general advice to cater for those working patients like police officers, teachers or market traders (many of whom are women), who are not able to take time off from their various employment duties to attend at standard clinic times. In this survey, the majority of the patients were happy with the appointment waiting time with 127/134 (94%) of participants reported as experiencing a reasonable appointment waiting time. However, 2 participants recorded a poor rating for this parameter. Unfortunately, as closed questions were used in this survey, the reasons for this were not stated. A possible reason for this may be clinic times coinciding with a patient's other work/family commitments or needing to travel from a faraway home address involving paying transport to/from the clinic. On the availability and convenience of appointment scheduling, 130/134 (97%) reported a good satisfaction rating with 4/134 (3%) recording a fair rating. There was no poor rating recorded for this question. This indicates a very high level of satisfaction with this parameter.

**Table 2: Satisfaction with the facilities and appointment**

Variable	Category	Frequency (n=134)	Percentage (% = 100)
Cleanliness & comfort of the clinic facility.	Poor	0	0
	Fair	0	0
	Good	134	100
Reasonable appointment wait time.	Not reasonable	2	2
	Neutral	5	4
	Reasonable	127	94
Convenience of appointment scheduling.	Poor	0	0
	Fair	4	3
	Good	130	97
Recommending clinic to family or friends.	Very unlikely	0	0
	Neutral	0	0
	Very likely	134	100
Willingness to join a diabetes support group.	Not willing	11	8
	Neutral	42	31
	Willing	81	61

The willingness of participants to attend a diabetes peer support group at the BGH clinic site or within the community was included in this survey. Patient support groups offer the potential for improved self-management in diabetes as it promotes adherence to treatment plans, provides emotional support, behavioural change through adjustment to lifestyle, self-monitoring, promptly seeking appropriate advice/care when required (Werfalli, 2020; Werner et al., 2024). In this survey, more than half of the participants 81/134 (61%) indicated a willingness to join a patient support group while 42/134 (31%) were neutral or were undecided about joining. A smaller number of 11/134 (8%) were unwilling to join a support group.

As there was a reported significant lack of knowledge on diabetes in this survey, a support group can offer a good opportunity for the upskilled diabetes clinic trainee nurses to capacitate a cohort of diabetes patients with the right knowledge on various aspects of diabetes who can go on to support other patients as diabetes community champions. This strategy is now encouraged in the UK especially within the Black, Asian and Minority Ethnic (BAME) communities with good results (National Health Service, UK, 2024). There is emerging evidence of the benefits of support groups on diabetes outcomes in low income countries where they have been implemented alongside professional clinical management teams (Sherifali *et al.*, 2024).



Quality of the nurse-led diabetes clinic services

The summary of participants responses on various quality indicators for the BGH nurse-led diabetes clinic are displayed in **Table 3**.

Table 3: Service quality indication questions

Variable	Category	Frequency (n=134)	Percentage (% = 100)
Friendliness and compassion of clinic staff	Poor	1	1
	Fair	0	0
	Good	133	99
Satisfaction with the quality of care received	Poor	1	1
	Fair	1	1
	Good	132	98
Satisfaction with time spent with clinic staff during visit.	Not satisfied	0	0
	Neutral	0	0
	Satisfied	134	100
Satisfaction with the diagnosis and agreed treatment plan	Not satisfied	1	1
	Neutral	0	0
	Satisfied	133	99
Usefulness of the advice given/received.	Not useful	0	0
	Neutral	0	0
	Useful	134	100
Confidence in following given advice/agreed treatment plan.	Not confident	4	3
	Neutral	0	0
	Confident	130	97

The quality of care provided by staff at the BGH nurse-led diabetes clinic and received by the participants was rated as good by 132/134 (98%). On the friendliness and compassion of the diabetes clinic staff, the results showed that 133/134 (99%) of participants perceived this as good. However, for both of these questions, 1 participant each reported poor or fair ratings. This may be due to unmet patients' expectations particularly with the non-availability of free diabetes medication in the nurse-led diabetes clinic. The provision of free medication was not one of the remits of the nurse-led diabetes clinic. It was agreed that medications will be managed within the current medicines arrangement at BGH for all conditions - that medicines will be prescribed and dispensed at cost recovery prices in the BGH pharmacy or paid for out of pocket at private pharmacies.

Nurse-patient consultation is the process of interacting between the nurse and a patient to gather information on their health (in this case diabetes) that is necessary to mutually agree a plan of care that is safe and acceptable to patient and the nurse as the care provider (Mellors & MacArthur, 2024; Hendrieksx et al., 2019). This is an important interaction especially in a LIC situation where expectations have got to be managed within the resource challenge constraints. Nurse-patient consultation plays a vital role in establishing a trusting professional relationship



between a nurse and the patient. It gives the patient an opportunity to discuss their condition from their own point of view rather than the healthcare professionals' and for the healthcare provider to agree with the patient on the most appropriate, safe or cost effective way to address the identified issues in the consultation process. To enhance this process, the nurse must employ good communication and/or interpersonal skills to establish a positive rapport with the patient. The art and science of nursing/midwifery equips nurses/midwives with those skills necessary to break down barriers which allows the patients to tell their own stories with ease during the consultation process (Lukewich et al., 2022). Patients need to be given the time in a consultation to discuss their issues and to reach a mutual plan as rushing a consultation may have negative outcomes. Compared to doctor-patient consultations, the nurse-patient consultations have been reported to be effective, longer in duration, tending to be more inclusive, discussing/agreeing treatment plans and how to implement these with the patients (Seale et al., 2005).

All the participants, 134/134 (100%), reported being satisfied with the time they spent with the clinic staff during their visits, the diagnoses received, including the treatment plans agreed with the nurse/midwife; and the usefulness of the advice received on their condition. Further, 130/134 (97%) felt confident of following the agreed treatment plan with only 4/134 (3%) not being confident of following the agreed plans. It will therefore be necessary to identify and follow up on such a group of patients to ensure they are appropriately supported in managing their diabetes condition.

The family and friends test is a common useful question included in surveys for gathering patients feedback about their experience. As a survey question, it helps service providers to gather useful metrics to measure how much a patient liked the services they have received. It is generally believed that if a service is good, patients will talk good about it, promote it and let others know about its usefulness. Word-of-mouth advertising is a powerful feedback technique employed in healthcare by service providers in customer satisfaction surveys (Soare et al., 2022). A total of 134/134 (100%) reported that they will very likely recommend the BGH nurse-led diabetes clinic to their family members or friends. This indicates a high level of satisfaction with the clinic facility and care the participants have received at the BGH nurse-led diabetes clinic.

Lifestyle modification advice

As a long term condition, various health enhancing strategies have been devised/implemented to help manage diabetes, including prescribing anti-diabetes drugs (tablets or insulin injections). Diabetes medications are in short supply in Sierra Leone and remain unaffordable by a majority of the patients. A limited free healthcare service which is mostly reserved for pregnant women, lactating mothers and under fives has been in operation since 2010. This well-intended initiative has had its own challenges as in reality, these services have tended not to be really free since the acute shortages of medicines in government healthcare institutions means that patients are often signposted to private pharmacies to purchase the required medicines out of pocket and the soliciting for bribes before treatment for the free services is not uncommon practice (Pieterse & Lodge, 2015). The household out-of-pocket expenditure for healthcare remains very high in Sierra Leone, estimated to be 64.6% of the total annual health expenditure of US\$ 206 millions, with the government contributing 4% and the remainder >31% coming from donor/development partners like World Bank, World Health

Organisation, non-governmental agencies (NGOs) or bilateral arrangements with foreign governments (Ministry of Health, Sierra Leone, 2021).

Optimising the management of diabetes complications with preventative strategies have been shown to be effective and cost saving in managing the complications of diabetes. Specific non-pharmaceutical strategies have been found to reverse diabetes especially from a pre-diabetes position (Ahmad & Joshi, 2023). Many self-manage programmes including DESMOND (**D**iabetes **E**ducation and **S**elf-**M**anagement for **O**ngoing and **N**ewly **D**iagnosed) and X-PERT (**E**xpert **E**ducation versus **R**outine **T**reatment) have been developed and validated to assist patients manage their diabetes and prevent acute (especially hypo- or hyper-glycaemia) and chronic complications (Diabetes.co.uk, 2024; X-Pert Health, 2024).

In high income countries, a multi-disciplinary (MDT) approach is employed in diabetes management, bringing expertise together including diabetologists/endocrinologists, General Practitioners (GP), pharmacists, podiatrists, health psychologists, nutritionists, ophthalmologists, diabetes specialist nurses and other community nurses to encourage patients to modify their diets, improve physical exercise activities, manage/reduce stress, stop smoking and moderating/abstaining from alcohol intake (Andersen et al., 2023). In the BGH diabetes clinic, self-management strategies are promoted during 1:1 consultations with patients and in group sessions.

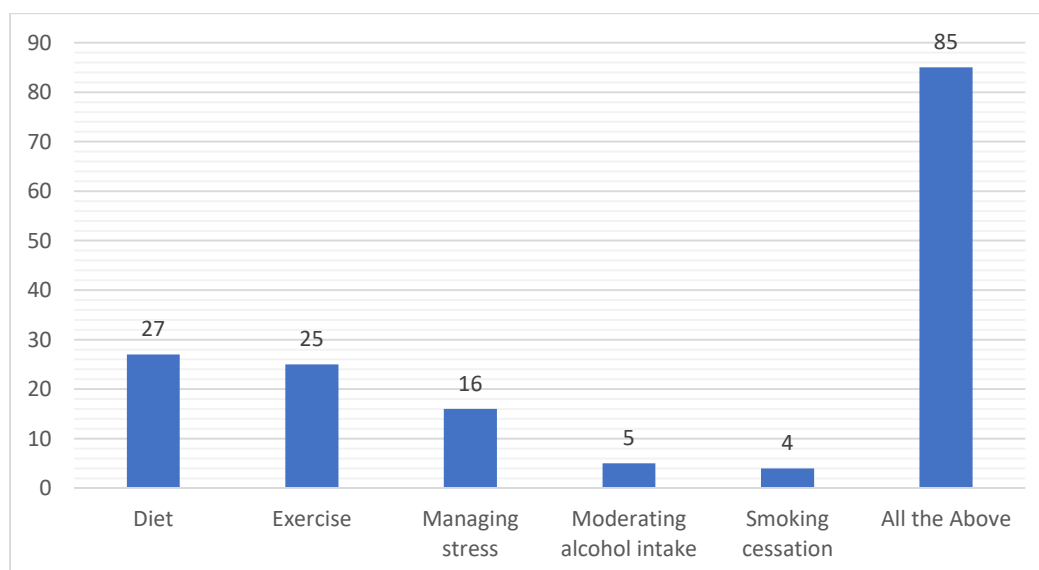


Figure 1: Lifestyle modification advice

To gauge participant patients' understanding of these strategies, five health enhancing strategies discussed with patients at clinic (diet, exercise, managing stress, moderating alcohol intake and smoking cessation) were included in the survey questionnaire together with the inclusive 'All the above' option. The results showed that all of the strategies were recalled with varying levels of frequencies as shown in **Figure 1**. Reassuringly, a significant number of 85 participants did recall having received advice on all of these strategies. It is important for the clinic nurses to keep reinforcing these messages at every opportunity of contact with the diabetes patients,



explore how they are putting these advice into practice and gauge the outcomes on patients' diabetes and their general health at follow up clinics.

CONCLUSION

The acute or chronic complications of diabetes are well known and documented. Diabetes negatively affects the quality of life of patients as the disease results in significant morbidity and mortality. In resource challenge settings like in LICs, due to the chronic shortages of doctors, medical supplies, the poor adherence to advised treatment plans, and the inadequate understanding of diabetes disease process, the outcomes of the disease are even more severe. The drive to ensure safe affordable healthcare that is available to all the population as envisaged in the World Health Organisation Sustainable Development Goal (SDG) 3.8 of 'Universal Health Coverage' by 2030, new models of care are being tried to complement traditional doctor-led services in delivering care for NCD conditions like diabetes and hypertension.

Nurse-/midwife-led clinics are reported to be effective models of healthcare provision, and in some conditions like diabetes care, are equally as effective as doctor-led clinics (Crowe et al., 2019; Dailah, 2024). Unlike the doctor-led services which focuses more on screening patients for organ damage and prescribing medications to correct physiological imbalances as a consequence of diabetes, nurse-led clinic services focuses more on the holistic needs of the patient by promoting lifestyle modification strategies, supporting the patients to adhere to treatment regimens/advice and the wider family or environmental impacts affecting the patient.

The results of this patient satisfaction survey for the newly established nurse-led clinic at Bo Government Hospital are exceptionally positive, demonstrating the clinic's success in delivering high-quality care in a low-resource setting. Participating patients reported high levels of satisfaction with the quality of care, communication, professionalism, and overall experience. These findings reflect the dedication and competence of the nursing staff, effective implementation of patient-centred care practices as well as the support of the host hospital management team.

The positive feedback underscores the importance and potential impact of nurse-led initiatives in enhancing healthcare delivery, particularly in regions with limited resources. This success sets a benchmark for future healthcare projects and highlights the feasibility and benefits of expanding nurse-led models of care in similar settings. Moving forward, the clinic can focus on maintaining these high standards, addressing any minor areas of concern identified, and continuously seeking ways to further improve patient outcomes and satisfaction.

The findings in this survey have shown that the new BGH nurse-led clinic is well accepted by the patients using the service for their diabetes care. It appears to add good value to the patients' diabetes care service experience at the Bo Government Hospital in Sierra Leone. This achievement serves as an encouraging model for other healthcare institutions and policymakers in low-resource countries, demonstrating that with the right approach and commitment, significant improvements in patient care and satisfaction are attainable.



RECOMMENDATIONS

- This survey highlights that the local population's knowledge on diabetes and its complications remains inadequate and impacted by traditional beliefs. There is therefore a need for expanded public education on diabetes including using radio and television broadcasts in the local languages to address this. BGH management to consider fostering stronger patient and community engagement by involving them in the planning and evaluation of services. This can enhance trust and ensure that the clinic's services continue to meet the community's needs.
- This survey shows that patients have an interest in joining a diabetes support group. The BGH management should consider setting one up, initially facilitated by the upskilled BGH nurses who will eventually train and hand over the running of the group to the patients to manage. A hospital based or community base setting approach could be used.
- The management of Bo Government Hospital should consider expanding the nurse-led model of care to other areas of healthcare within the hospital and in other regions. The success of the diabetes nurse-led clinic demonstrates the effectiveness of this approach, which could benefit a broader patient population.
- The Ministry of Health Sierra Leone should build partnerships with other healthcare providers and organisations to share best practices, resources, and training opportunities. Collaboration can lead to more comprehensive care and better patient outcomes.
- TOSHPA in collaboration with the Chief Nursing and Midwifery Officer should advocate for policies that support nurse-led clinics and the broader integration of nurses in primary care roles. Highlighting the clinic's success can influence healthcare policy and promote the replication of this model in other low-resource settings.
- Although the survey results were excellent, it is important for TOSHPA to address any minor issues or areas for improvement identified in the feedback. This proactive approach will help maintain high satisfaction levels.

Implementing these recommendations will help sustain and build upon the initial success of the nurse-led diabetic clinic, ensuring continued high patient satisfaction and improved health outcomes in the community.

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Group Photo with Registered Nurses, after TOSHPA facilitated training session



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