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Pragmatic Person-Centered Care for Diabetes in Myanmar: Insights From an Advisory Board Meeting

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Abstract

Diabetes causes considerable morbidity and mortality in Myanmar. A pragmatic person-centered care (PCC) approach offers a holistic and individualized strategy. This expert opinion paper explores perspectives from Myanmar and Indian experts on diabetes burden, role of PCC, and barriers to its implementation. An advisory board meeting in December 2024 included expert-led sessions. Patient, physician, healthcare system, and curriculum-related challenges in implementing PCC were identified. However, Myanmar's cultural strengths deeply rooted in Buddhist philosophy may support PCC adoption. Personalized pharmacotherapy was emphasized. Metformin remained first-line, with sodium-glucose cotransporter-2 inhibitors and glucagon-like peptide-1 receptor agonists favored for high cardio-renal risk.

Categories: Family/General Practice, Public Health, Endocrinology/Diabetes/Metabolism
Keywords: diabetes mellitus, disease management, holistic health, myanmar, patient-centered care

Introduction And Background

Diabetes is a significant public health concern with its burden steadily rising across the world [1-3]. The scenario is no different in the Asian country Myanmar, where the International Diabetes Federation Diabetes Atlas reported 2.34 million adults living with diabetes in 2021, with the number projected to rise to 3.43 million by 2045 [4]. Despite the presence of established conventional approaches, people with diabetes (PwD) often face significant challenges contributing to suboptimal glycemic control [5]. A pragmatic person-centered care (PCC) approach serves as a framework to overcome the challenges of the conventional approach [6].

PCC is a holistic approach that empowers patients for effective self-management by aligning care with individual preferences, improving self-care, glycemic control, and medication adherence [5]. The European Association for the Studies on Diabetes and the American Diabetes Association (ADA) consensus report outlines prevention of diabetic complications and optimization of quality of life (QoL) as key goals of PCC, achievable through 13 care principles focused on individualizing treatment based on patient characteristics and preferences [7]. Healthcare disparities remain a concerning issue in resource-limited countries [8]. Models such as PCC, which focus on optimizing resource use, promoting patient rights, and ensuring high-quality healthcare services, can offer potential solutions to address these challenges [9]. This expert opinion aims to understand the burden of diabetes, the role of PCC in the management of diabetes, and the barriers to its implementation in the context of Myanmar.

Review

MATERIALS AND METHODS

An advisory board meeting was conducted in December 2024. A comprehensive literature search was performed to develop a discussion guide for the meeting, comprising sessions on PCC-related topics by expert speakers, followed by group discussions and opinions from the experts. The meeting was initiated with a quiz aimed at assessing the perspectives of the experts on PCC. This was followed by a discussion on the topics: diabetes, defining PCC, barriers to PCC, Myanmar's strengths in the fight against diabetes, PCC

stewardship, motivational therapeutics, and pharmacotherapy for diabetes management. A moderator steered the discussions. A total of 39 experts from Myanmar and India participated in the advisory board meeting. **Supplementary Table *1*** presents the discussion guide for the advisory board meeting.

RESULTS

Insights from the advisory board meeting

Based on the responses to the quiz questions **Supplementary Figure *1***, it was highlighted that the experts demonstrated their commitment to the holistic approach, i.e., PCC for managing diabetes, understanding patient characteristics and physician-related barriers for implementing PCC in clinical practice, and prioritizing patients' needs and preferences by shared decision-making.

Diabetes and well-being

According to GBD 2021, diabetes accounted for 79.2 million disability-adjusted life years (DALYs), with type 2 diabetes mellitus (T2DM) accounting for 95.4% of this burden [10]. Likewise, the situation in Myanmar is concerning, reflecting the typical iceberg phenomenon of disease. An estimated 7.1% of the population aged 20-79 years is affected by diabetes, representing only the visible tip of the iceberg, while 51.7% of those with diabetes remain undiagnosed [4]. Diabetes, a chronic lifelong condition, often recurs and worsens over time, impacting both physical and mental health [11]. PwD are at increased risk of anxiety, maladjustment, and depression, and mental disorders (in severe cases), which impede treatment adherence and self-management, while also contributing to organ damage and elevating the risk of complications [11,12].

A multinational study reported that the dynamic and chronic nature of diabetes, and constant need for PwD to adjust their diet and medication was the biggest disabler in managing diabetes. The financial burden of laboratory investigations and treatment was identified as a significant barrier to self-care [13]. In Myanmar, the total diabetes-related health expenditure in 2021 was estimated at 457.3 million USD (914.6 billion MMK), projected to increase to 554.3 million USD (1.1086 trillion MMK) by 2045 [4]. The study also highlighted work-related travel, discrepancy between patient and healthcare professional (HCP) perceptions of care, including conflicting self-management advice, as key challenge in managing the condition [13].

Diabetes self-management education and support (DSMES) is a critical component of the treatment plan, as important as pharmacotherapy selection. It is customized to the individual's context, including their beliefs and preferences [7]. Evidence shows that DSMES is effective in improving glycemic control and patient-related outcomes, particularly when integrated with psychosocial interventions [14,15]. The opinions of the experts on the diabetes burden and well-being are detailed in **Supplementary Table *2*** and align well with the existing literature.

PCC approach in the management of diabetes

In Myanmar, several sociocultural practices, such as attributing diabetes to "germs", excessive physical activity, or past misdeeds, often influence treatment choices and reliance on traditional medications [16]. This highlights the importance of implementing tailored, culturally sensitive interventions to ensure timely, individualized care, and address barriers influenced by social determinants of health [7].

PCC is characterized by a holistic approach that incorporates an individual's comorbidities and prognoses; prioritizes respect for their preferences, needs, and values; and ensures that clinical decisions are guided by these values [17]. The ADA 2025 standards of care embrace this framework emphasizing the individualization of diabetes care and acknowledging PwD as unique individuals. This approach considers patients' values, preferences, social determinants of health, barriers to care, comorbid conditions, degree of hyperglycemia, susceptibility to medication side effects, and risk of complications, alongside emphasizes effectively communicating the balance of risks and benefits of each intervention [17]. In Myanmar, a diabetes care model was developed to bridge rural-urban disparities by providing an accessible, comprehensive, and an efficient care in both, urban and rural communities across all healthcare levels. It focused on community mobilization, empowering healthcare staffs, involving communities in the care planning, applying universal health coverage concept, managing World Health Organization (WHO)-recommended essential drugs and preventing other non-communicable diseases [18].

Understanding patient phenotypes is also important in managing diabetes. Categorizing patients into distinct phenotypes enables for tailored therapies, appropriate follow-up. treatment intensity based on the patient's phenotype and disease stage. It also aids in understanding underlying dysglycemia, assess risk of complications and target therapies more effectively. Severe insulin-deficient diabetes, severe insulin-resistant diabetes, mild obesity-related diabetes, and mild age-related diabetes are the four phenotypes of PwD reported in the literature [19]. The opinions of the experts on the PCC approach in the management of diabetes are in line with the literature and are detailed in **Table *1***.

Expert opinion on the PCC approach
The ADA guidelines on the management of PwD may not be feasible due to cultural beliefs, healthcare barriers, and socioeconomic factors. PwD have unique individual characteristics regarding glycemic control, comorbidities, and challenges, necessitating a tailored approach for each patient. The Atreya quadruple involves understanding the reasons for elevated glycemia, identifying challenges in blood glucose control, and recognizing difficulties in lifestyle changes via a team-based approach. The quintessential quincunx model centers PwD and surrounds them with key components such as physicians, caregivers, medication providers, and the healthcare team. A PCC can be defined as delivering care that respects and responds to PwD's preferences, needs, and values. HCPs should engage in respectful, nonjudgmental conversations with PwD about their needs and values, avoiding sarcasm or criticism. PCC is part of Myanmar's philosophy, emphasizing conscious compassion and empathy in care. Counseling should focus on challenges faced by PwD, considering convenience, comfort, and treatment costs while maintaining a person-centered approach. Steps for managing diabetes: build rapport with PwD, listen and assess, acknowledge concerns, explain treatment with empathy, and provide reassurance. The management of PwD can be tailored based on their phenotype: anabolic (obese, insulin-resistant), catabolic (thin, insulin-deficient), and eubolic (metabolically stable with mild insulin impairment). Understanding PwD's phenotypes guides medication choices and discussions. Based on the sapiotype, PwD can be categorized into health literate and numerate (knowledgeable and effective in managing health), health literate but ill numerate (willing to learn but need periodic checks), and health illiterate and ill numerate (lacking knowledge and less receptive to medical advice). Sapiotyping helps determine the time needed for consultations by assessing PwD's understanding, engagement, and readiness to learn.

TABLE 1: Expert opinion on the PCC approach in the management of diabetes

ADA: American Diabetes Association; HCP: Healthcare professional; PCC: Person-centered care; PwD: People with diabetes.

Barriers to the PCC approach

Despite guidelines emphasizing the PCC approach for diabetes management, resource-limited countries face several barriers to its implementation at patient, HCP, and healthcare system-levels. Many PwD have misconceptions regarding diabetes, demonstrate a lack of self-motivation for self-care, struggle adopting dietary modifications and present with a low literacy level inhibiting them from reading, writing, and understanding health information. Additionally, cost of laboratory tests and diabetic drugs has also been reported as a barrier to PCC implementation [20].

A key HCP-level barrier to PCC in diabetes care is limited collaboration and lack of specialized training, resulting in an insufficient understanding of the latest management practices, reliance on outdated information and capacity to effectively teach and motivate patients. Effective communication, a cornerstone of PCC, also remains a challenge due to HCPs' deficiencies in basic communication and counseling skills. Additionally, limited knowledge regarding socio-culturally tailored diabetes diets impedes the provision of personalized care [20]. However, study evaluating the impact of collaborative primary care comprising both HCPs and patients highlighted that patients were satisfied with the valuable information provided by HCPs regarding diabetes care [21].

The healthcare systems in resource-limited countries often lack well-integrated diabetes services. In one study, patients underscored the unavailability of experts to provide timely care, leading to frequent interruptions in laboratory services and an unsustainable supply of essential diabetes medications [20]. High patient loads further limits the time allocated for HCP consultations, leading to insufficient patient education, counseling, and ability of HCPs to establishing trustworthy partnerships with their patients [20,21]. The experts in the present study also expressed the person, physician, and healthcare system-related barriers to implementing the PCC approach. Furthermore, they also highlighted the curriculum-related barriers that prioritize a disease-specific approach over a PCC-focused approach **Supplementary Figure *2*** and **Table *2***.

Expert opinion on barriers to the PCC approach
Physician-related barriers: Limited consultation time due to physicians' busy schedules can impede effective communication with PwD, especially when the patient is eager to listen and make lifestyle changes. Physicians' ego and pride that stem from their extensive education and experience create a barrier to effective diabetes management by limiting empathy and understanding toward PwD. Physicians lack sufficient knowledge of PCC, preventing its effective implementation in clinical practice. Healthcare system-related barriers: There is a shortage of institutions providing specialized diabetes care across primary, secondary, and tertiary levels, limiting access to comprehensive management for PwD. Government regulations, especially in government settings, restrict physicians in offering personalized care, limiting their ability to adapt to the individual needs of PwD. The disparity between urban and rural healthcare settings is significant, with rural areas lacking specialized care, resources, and trained professionals. High healthcare costs create a financial burden for PwD, hindering access to necessary treatments and follow-up care. Medicolegal challenges, such as concerns over patient consent and liability for mismanagement, complicate the delivery of optimal diabetes care. The coordination among specialists is poor, leading to fragmented care and inconsistent treatment plans for PwD. Curriculum-related barriers: Medical curriculum predominantly focuses on disease-specific aspects, often overlooking PCC and its practical implementation. Students lack training for implementing PCC in clinical practice. Training prioritizes standardized management guidelines and protocols, with limited attention to personalized patient management. The psychosocial aspects are inadequately integrated into the medical curriculum. Education and training are limited by time, and implementing patient-centered care requires extra time and resources. The curriculum is outdated and inflexible and lacks emphasis on cultural competency. Collaboration and team-based learning are inadequately addressed, though newer curricula have begun incorporating these approaches. There are significant barriers to continuing education for practitioners. Despite the critical role of communication in clinical practice, it is inadequately emphasized in medical education.

TABLE 2: Expert opinion on physician, healthcare system, and curriculum-related barriers to the PCC approach for managing diabetes

PCC: Person-centered care; PwD: People with diabetes

Myanmar's strengths in the fight against diabetes

PwD are often nested within family and social environments, which significantly influence their diabetes care [22,23]. Family members provide instrumental support (scheduling follow-up appointments, timely insulin administration), and emotional support (alleviating diabetes-related distress, offering encouragement) [22]. A systematic review reported that DSME integrated with family support effectively reduced glycated hemoglobin (HbA1c) levels by 1% and improved perceived support, medication adherence, psychosocial aspects, self-efficacy, diabetes complications, overall QoL, and proved cost-effective [22]. Correspondingly, an umbrella review highlighted that shared family goals of maintaining fitness can positively support PwD in their diabetes management journey. Family members can contribute by engaging in physical activities together, adhering to a healthy diet, ensuring timely meals, and assisting in coordinating medication schedules [23]. In Myanmar, where family plays a central caregiving role, a study found a significant association between family support and medication adherence in PwD, highlighting its positive influence on treatment adherence [24].

In terms of religion, Buddhist practices significantly influence daily life in Myanmar and can support diabetes management when integrated with modern medicine [25]. Buddhist principles encourage PwD in pursuing correct knowledge, avoiding myths, and seeking appropriate guidance for their condition. Additionally, it also promotes lifestyle modifications and emphasizes the value of family and community support in managing diabetes effectively [25]. The noble eightfold path of Buddhism emphasizing discipline, meditation, and self-restraint offers a framework that supports modern diabetes management. Mindfulness meditation can aid in reducing diabetes distress, pain, anxiety depression, as well as controlling hypertension and diabetes [25]. Traditional medications also play an important role in Myanmar's healthcare system, supported by the government. The community of Myanmar strongly believes in these medications over Western medications and usually considers them as their first choice with reasons being trust, affordability, traditional belief, peer advice, and disbelief in Western medications [26].

A systematic review reported that positive relationship between improvement in diabetes conditions and spirituality and religiosity positively influenced diabetes outcome by enhancing their ability to cope with diabetes-related stress, leading to better glycemic control [27]. Given the significance of religious practices in Myanmar, religious leaders can play a potential role in raising community awareness on diabetes management. On a similar line, Bhowmik B et al. (2022) described a successful initiative in Bangladesh, where religious leaders were trained on diabetes-related issues to enhance societal awareness [28]. The opinions of the experts regarding the strength of family values, religious practices, and the involvement of the community in the management of diabetes are in accordance with the reported literature **Figure *1*** and **Supplementary Figure *3***.

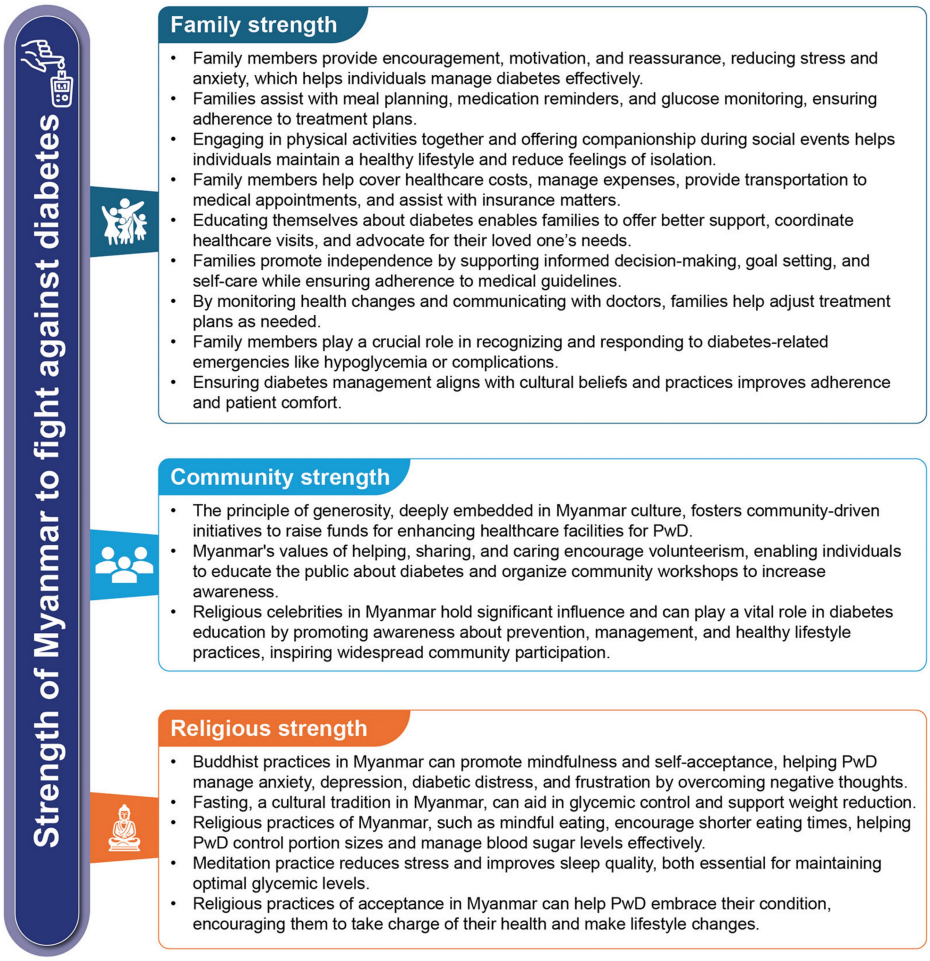

FIGURE 1: Expert opinion on Myanmar's strengths in the fight against diabetes

PwD: People with diabetes

PCC stewardship

The term stewardship is commonly used in relation to antimicrobial stewardship, aimed at optimizing medication use, improving patient outcomes, reducing adverse effects (AEs), and maintain cost-effectiveness [29]. Building upon this description, the experts in the present study advocated for a similar stewardship approach in diabetes management aligned with PCC. While diabetes stewardship for PCC remains less explored, existing research primarily focuses on pharmacy and medication stewardship in diabetes management [30].

A study by Drincic AT et al. (2018) reported that diabetes pharmacy stewardship, along with a glucose management program, can help in controlling the glycemic level of PwD. Program, emphasized optimizing medication use, accurate insulin prescribing, error prevention, and enhancing safety in inpatient care. Pharmacists played a key role in reviewing regimens and educating staff and patients [30]. Similarly, a 5-year stewardship program demonstrated a 14% increase in the insulin administration accuracy among nurses, a decrease in hypoglycemia from 8.27% to 5.03%, and a 15.20% increase in patient education about insulin injection [31]. Though literature specific to PCC stewardship is limited, the experts in the present study provided their opinion on having a PCC stewardship that will focus on the development of policies, processes, and practices encouraging PCC for PwD **Table *3***.

Expert opinion on PCC stewardship
Stewardship in PCC involves the development of policies, processes, and practices that facilitate the integration of PCC into clinical settings. The policy aspect integrates PCC into the curriculum, the process aspect enhances knowledge through case discussions and education, and the practice aspect ensures PCC is applied in clinical settings. There are four types of stewardships: metabolic, macro, meso, and micro stewardship. Metabolic stewardship focuses on promoting metabolic health through policies, processes, and practices, integrating traditional and spiritual practices of Myanmar to deliver PCC for PwD with empathy and understanding of their treatment plans. Macro stewardship refers to large-scale health initiatives at the national or regional level in Myanmar to promote health policies and public health. Meso stewardship involves practices at hospitals and teaching institutions, integrating PCC into the curriculum and educating healthcare professionals to promote a culture of personalized care to improve outcomes in PwD. While following micro stewardship, the points to be considered include discussing medication benefits with PwD to encourage a positive outlook and adherence, explaining the potential side effects to provide tailored dosages, and explaining the purpose of medications, their dosages, and administration to ensure optimal effectiveness and adherence.

TABLE 3: Expert opinion on PCC stewardship

PCC: Person-centered care; PwD: People with diabetes.

Lifestyle modifications and pharmacological management of diabetes

The ADA 2025 guidelines emphasizes having a PCC approach to guide the choice of antidiabetic drugs, focusing not only on achieving glycemic targets but also considering its impact on comorbidities, weight, cardiorenal outcomes, cost-effectiveness, hypoglycemia risk, potential AEs, drug accessibility, and patient tolerability [32]. For body weight management, the ADA 2025 guidelines recommends frequent counseling sessions (16 sessions over 6 months), emphasizing dietary modifications, increased physical activity, and behavioral strategies to create a daily 500-750 kcal deficit. In case these interventions are not available, structured in-person or remote behavioral counseling programs should be considered [33]. Obesity treatment should be personalized, considering structural, cultural, and socioeconomic factors that affect nutrition and food choices, including food insecurity, access to healthy food, and social determinants of health [33]. Nevertheless, therapy choices should also account for comorbidities, side effects, cost, accessibility, and individual goals and preferences. Evidence-based, cost-effective treatment options can improve healthcare access and reduce financial burden for individuals with obesity [33]. Considering their weight management benefits, the preferred pharmacotherapy for PwD and overweight/obesity is a glucagon-like peptide-1 receptor agonist (GLP-1 RA) or a glucose-dependent insulinotropic polypeptide + GLP-1 RA with greater weight loss efficacy [33].

Antihyperglycemic drugs include oral agents (metformin, Sodium-Glucose Cotransporter-2 inhibitors [SGLT-2is], GLP-1 RAs, dipeptidyl peptidase-4, pioglitazone, sulfonylureas) and injectable agents (GLP-1 RAs, insulin). The choice of drugs based on glycemic level and comorbidities are detailed in **Supplementary Figure *4*** [32]. Along with medication choice, regular monitoring and dose adjustments are also crucial. Current standards recommend reevaluating diabetes medications every 3-6 months [32].

To reduce cholesterol levels and prevent complications, moderate-intensity statin therapy is recommended for PwD aged 40-75 years without atherosclerotic cardiovascular disease (ASCVD), reasonable-intensity statin therapy is recommended for PwD aged 20-39 years with ASCVD risk , and high-intensity statin therapy is recommended for PwD with high CVD risk [34]. Statin therapy is recommended to be continued in PwD aged over 75 years. However, in PwD with statin intolerance, bempedoic acid is recommended to reduce cardiovascular disease (CVD) events and lower cholesterol levels [34]. The opinions of the experts in the present study are in line with the ADA guidelines and emphasize considering gender and risk of complications as well as affordability, acceptability, and accessibility of antidiabetic drugs for PwD

Expert opinion on the pharmacological management of diabetes
Choice of antihypertensives: Antihypertensive medication choice should be personalized, considering the patient's preferences, needs, and values, alongside clinical indications. ACEIs or ARBs are the first-line antihypertensives in PwD with CAD or CKD. After initiating ACEI or ARB, regular monitoring of potassium and creatinine levels is crucial to prevent complications such as hyperkalemia and renal impairment. If a follow-up visit for monitoring potassium and creatinine levels is uncertain, starting with an alternative first-line antihypertensive is preferred, as blood pressure reduction is crucial for reducing cardiovascular risk in PwD. Given the availability of both generic and brand-name medications, the selection should balance cost-effectiveness with the patient's socioeconomic status and preferences. For patients with limited financial resources, emphasizing lifestyle modifications (e.g., exercise, diet changes, and smoking cessation) can be an effective first step in managing blood pressure. If lifestyle changes alone are insufficient, referring patients to charity clinics or prescribing affordable medications ensures continued care while maintaining adherence. Choice of statins: The choice of statin depends on the patient's age, presence of risk factors for ASCVD and established ASCVD, comorbidities such as CKD and liver disease, and socioeconomic factors. The statin dose should be tailored to the individual's risk. The highest tolerated statin dose should be used for patients who cannot tolerate the prescribed dosage. The role of statins in preventing ASCVD, diabetes-related complications, and potential side effects should be explained to PwD. HCPs should engage in shared decision-making to improve medication adherence and achieve LDL cholesterol goals. Choice of OAD: Metformin is the first-line drug for PwD, provided there is no contraindication. SGLT-2is and GLP-1 RAs have demonstrated cardiorenal protection in PwD with high risk of CVDs, established ASCVD, and CKD. SGLT-2i is the choice of drug for PwD who have complications such as heart failure. SGLT-2is and GLP-1 RAs despite being valuable for these patients have limited availability and are not affordable, especially in resource-limited countries. Tizepetide and semaglutide followed by dulaglutide, liraglutide, and extended release exenatide promote weight loss and glycemic control. Metformin, SGLT-2i, DPP-4I, dopamine agonist, bile acid sequestrants, and AGI are weight neutral or provide modest beneficial effect. Insulin therapy or sulphonylurea provides rapid blood glucose lowering effect in patients with severe hyperglycemia and high HbA_{1c} levels. Pioglitazone and GLP-1 RAs are useful for MASH. HCPs should consider social determinants such as food insecurity, housing insecurity, financial barriers, health insurance, health care access, environmental and neighborhood factors, social capital/social community support while considering the choice of OAD. Patient-related factors to be considered include eating patterns, work shifts, and patients' preferences, values, and needs. Choice of body weight management: Lifelong personalized treatment is essential in PCC for individuals with obesity. HCPs can assess attitudes and acceptance among individuals with obesity using the 4A model (affable, apathic/frustrated, antagonistic/angry/aggressive, active seeker/anxious), thereby tailoring their responses accordingly. Social, cultural, emotional, and environmental factors affecting weight reduction, particularly indigenous diet and lifestyle should be taken into consideration. Patient involvement is crucial for informed healthcare decision-making, especially when individuals may require multidisciplinary healthcare support. Prioritizing person-first language can be a constructive approach to provide patient support. Choosing medications for weight reduction often requires considering patient preferences, particularly with injectable therapies, which need long-term follow-up, adherence, and may have significant financial implications. Providing patients with accurate, accessible, and evidence-based healthcare information can promote health literacy and ensure effective decision-making. Patient information and treatment should be cost-effective. Bariatric surgical procedures can achieve significant and long-term weight control; however, accessibility, cost, malabsorption, and comorbidities should be discussed with patients. Body weight management should be a person-centered approach involving healthcare policy and delivery, with good patient involvement.

TABLE 4: Expert opinion on the pharmacological approach for managing diabetes

ACEI: Angiotensin-converting enzyme inhibitor; AGI: Alpha-glucosidase inhibitor; ARB: Angiotensin receptor blocker; ASCVD: Atherosclerotic cardiovascular disease; CAD: Coronary artery disease; CKD: Chronic kidney disease; CVD: Cardiovascular disease; DPP-4I: Dipeptidyl peptidase-4 inhibitor; GLP-1 RA: Glucagon-like peptide-1 receptor agonist; HbA1c: Glycated hemoglobin; HCP: Healthcare provider; LDL: Low-density lipoprotein; MASH: Metabolic dysfunction-associated steatohepatitis; OAD: Oral antidiabetic drug; PCC: Person-centered care; PwD: People with diabetes; SGLT-2i: Sodium–glucose cotransporter-2 inhibitor.

Motivational therapeutics

PwD often experience challenges in adopting the recommended behavioral changes necessary to prevent disease-related complications. Motivational interviewing (MI), an evidence-based, empathetic counseling approach that supports patients by addressing and resolving ambivalence and enhancing motivation for change [35]. MI involves four processes: building a trusting relationship, focusing on a specific behavior to change, encouraging patient's motivation to change, and developing a plan to achieve the change [36].

The International Expert Panel Committee outlined key strategies for bringing successful behavior change in PwD. These include establishing clear and simple communication between HCPs and PwD about the necessity of change, focusing on one recommendation at a time, and using teach-back method to ensure understanding. HCPs should avoid the "one size fits all" approach and should aim at tailored recommendations based on gender, age, available resources, and ethnicity of PwD [37]. The committee emphasized on importance of respecting patient's decisions, even when they differ from the HCP's recommendations. Proper training for PwD, regular follow-ups, and adjustments to treatment plans during each visit are also essential. Integrating planned behavior changes into daily routines, such as combining tooth brushing with blood glucose monitoring, can further support adherence. Lastly, HCPs should adopt an empathetic and supportive tone, emphasizing encouragement rather than criticism or fear, to promote positive behavior change [37]. Meta-analyses reported that MI in PwD significantly reduced HbA1c,

postprandial plasma glucose levels, systolic blood pressure, emotional distress, and depressive symptoms, while also enhancing self-efficacy [38,39]. The experts in the present study also emphasized the effectiveness of MI and its implementation in the management of diabetes for a PCC approach **Table *5***.

Expert opinion on motivational therapy for managing diabetes
Motivational therapy is a PCC approach, and it encourages PwD to initiate behavior changes by inspiring them rather than providing prescriptive, step-by-step guidance. Motivational therapy is effective for individuals who may not yet be ready to make the necessary changes. The approach is tailored to the individual's stage in the behavior change process, such as precontemplation or contemplation, to improve lifestyle changes and medication adherence. Understanding PwD's stage of readiness helps personalize motivation, focusing on either initiating changes or sustaining adherence to lifestyle and medication. Motivational interviewing is a key tool in motivational therapy. Some PwD may need internal motivation driven by their values or goals, while others may respond better to external motivation, such as encouragement or support from HCPs. Motivation should be positive and constructive to encourage PwD, but in acute situations, physicians may need to use negative motivation by emphasizing the urgency and risks of nonadherence. Adjacent possible, another tool in motivational therapy helps identify immediate and subsequent steps for PwD, thereby encouraging gradual changes that lead to long-term improvements. The "3Is" approach in motivational therapy, inform, incubate, and initiate, helps guide PwD through the process of understanding and accepting treatment options. HCPs may have to spend more time on the "incubate" step for new PwD, allowing them to process the information before proceeding. For long-standing PwD with a trusted relationship, physicians can move directly to the "initiate" step, as they are more likely to trust the recommendations of their HCPs and proceed with treatment. Motivation should focus on practical, achievable steps rather than unrealistic goals or frightening outcomes.

TABLE 5: Expert opinion on motivational therapy for managing diabetes

HCP: Healthcare practitioners; PCC: Person-centered care; PwD: People with diabetes.

Conclusions

Diabetes poses a multifaceted burden on the physical, emotional, and social well-being of PwD, affecting their overall QoL. Expert insights highlight the need for a culturally sensitive, PCC approach in Myanmar, despite barriers at the patient, HCP, system, and educational levels. Myanmar's cultural context characterized by familial structure, strong Buddhist values, community support, and mindfulness practices offers a unique opportunity to integrate PCC effectively. Implementing PCC stewardship through structured policies, motivational interviewing, and individualized treatment strategies, including antidiabetic agents and statins can optimize glycemic control. Treatment decisions must consider age, comorbidities, cardiovascular risk, tolerability, and affordability to ensure patient-centered, evidence-based care.

Appendices

Topics	Subtopics covered
Quiz	Questions on assessing obesity in a patient-centered way Guideline-based management of obesity and PCOS in people with diabetes Pillar of PCC Diet prescription Barriers to PCC Alternative medication approach
Well-being and diabetes	Impact of diabetes on physical, mental, social, and emotional well-being Recommendations by the ADA for diabetes management Behavioral therapy
PCC	Challenges in the management of diabetes Description and definition of PCC Atreya quadruple and quintessential quincunx models Categorization of patients based on phenotype and sapiotype
Barriers to PCC	Person-related barriers Physician-related barriers Healthcare system-related barriers Curriculum-related barriers
Myanmar's strengths in the fight against diabetes	Strength of family Strength of community Strength of religion and spirituality Strength of traditional Myanmar wisdom in achieving 50% PCC
PCC stewardship	Types of stewardship Aspects to be considered while following the stewardship
Lifestyle modifications and pharmacotherapy	Choice of OAD Choice of antihypertensives Choice of statins Choice of body weight management
Motivational therapeutics	Approach towards motivational therapeutics Tools of motivational therapy

TABLE 6: Discussion guide for the advisory board meeting

ADA: American Diabetes Association; OAD: Oral antidiabetic drug; PCC: Person-centered care; PCOS: Polycystic ovary syndrome.

Expert opinion on diabetes and well-being
Diabetes significantly impacts physical, emotional, and social well-being, affecting various aspects of patients' daily life, including their work life, school activities, and sexual life. Three in four PwD experience stress, anxiety, depression, and frustration, while four in five face diabetes burnout, affecting their mental health. PwD often miss social activities due to blood sugar monitoring and medication routines and are prone to eating disorders (especially women). Diabetes challenges can be grouped into biomedical (managing glucose and metabolic issues), psychological (anxiety, fear, and frustration), social (use of alternative medications due to cultural beliefs), and environmental (lack of healthcare access and support systems) factors. Mindfulness-based interventions, acceptance and commitment therapy, and resilience programs are recommended for stress and anxiety management in PwD. As per the 2024 ADA guidelines, DSMES is a critical component of diabetes care and should be integrated into the journey of PwD. DSMES should be integrated at diagnosis, annually, and during complications and life transitions. PwD should adopt lifestyle changes, including regular activity, brief walks, and sufficient sleep, to improve glycemic control and overall health. Walking 500 steps daily reduces risks by 2%–9%, a brisk 5-minute walk adds up to 4 years of life, and 7–9 hours of sleep improves glycemic control. Behavioral therapy strengthens coping mechanisms and improves overall well-being; thus, it should be implemented in PwD. Psychological care through professional interventions, such as counseling, cognitive behavioral therapy, and support from mental health specialists, should be integrated to reduce distress, enhance treatment adherence, and improve QoL in PwD.

TABLE 7: Expert opinion on diabetes and well-being

ADA: American Diabetes Association; DSMES: Diabetes self-management education and support; PwD: People with diabetes; QoL: Quality of life.

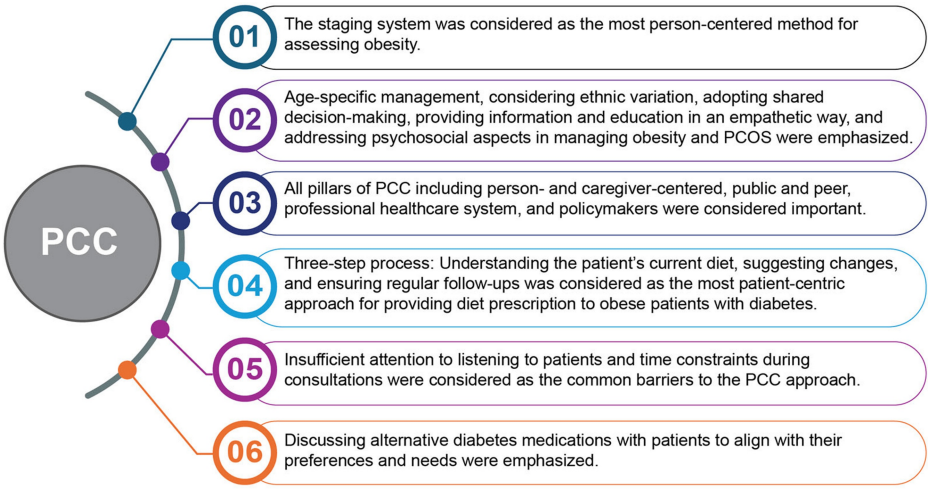

FIGURE 2: Responses reflecting the understanding of the experts regarding the PCC approach

PCC: Person-centered care; PCOS: Polycystic ovary syndrome.

Knowledge barriers	Attitude barriers	Practice barriers
Person-related barriers come from the knowledge, attitudes, and practices of individual patient.	Patients may resist adopting new behaviors like smoking cessation, reducing alcohol, or exercising regularly.	Patients may lack confidence in their knowledge, relying solely on healthcare providers, leading to minimal participation in care decisions.
Patients may lack understanding of their illness, treatment options, and medical terminology, leading to misconceptions, poorly informed decision-making, and reduced treatment adherence.	Belief that health outcomes are predetermined can lead to a lack of motivation for active participation in care.	Competing priorities (e.g., work, family) can result in missed appointments, inconsistent follow-ups, and poor treatment adherence.
Incorrect knowledge from unreliable sources (e.g., myths about medications like metformin causing renal failure) can result in inappropriate disease management.	Excessive fear or anxiety may result in avoidance behaviors, reducing engagement in necessary care.	Difficulty in tasks like blood glucose monitoring or medication adherence can hinder effective disease control.
Patients may be unaware of available support services, educational materials, and community programs that could aid in managing their condition.	Negative past experiences can lead to skepticism, hindering patient-provider relationships and care engagement.	Adopting and sustaining healthy habits (e.g., diet, exercise) is difficult due to lack of support, resources, or time constraints.
Managing chronic conditions like long-standing diabetes with multiple complications requires advanced health knowledge. Limited understanding hinders self-monitoring, self-management, and quality of care.	Patients may feel incapable of managing their illness, believing their efforts won't impact health outcomes.	Misalignment between patient concerns and provider recommendations can reduce comfort and engagement in care.
	Cultural beliefs about health, illness, and treatment can affect adherence, lifestyle changes, and overall participation in care.	High healthcare costs can limit access to essential medications and treatments, especially in out-of-pocket payment systems.

FIGURE 3: Expert opinion on person-related barriers to the PCC approach for managing diabetes

FIGURE 4: Traditional Myanmar wisdom as a strength for managing diabetes

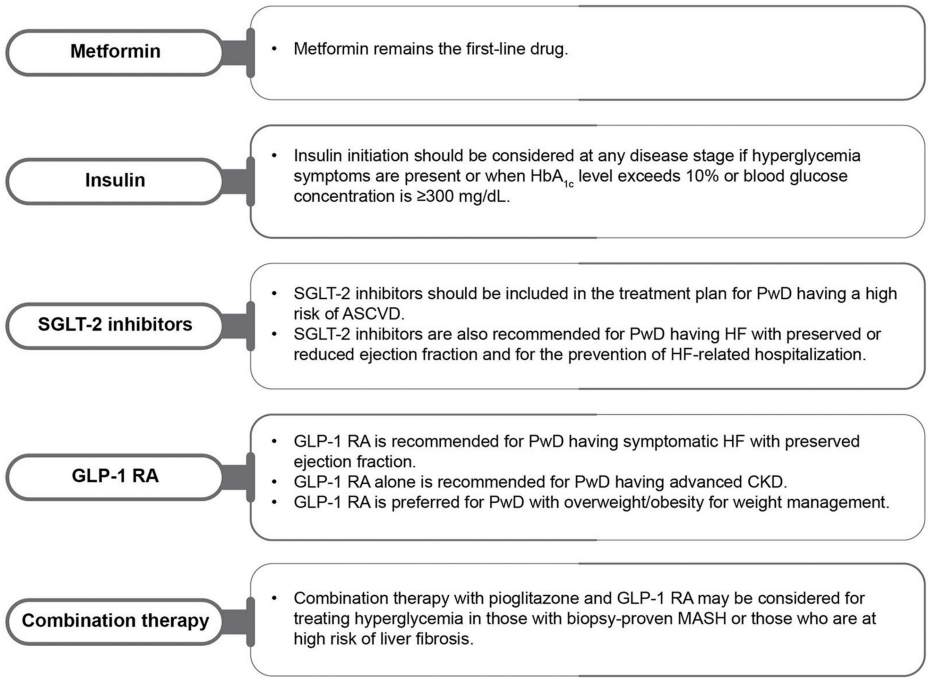

FIGURE 5: Choice of antihyperglycemic drugs for the management of diabetes

ASCVD: Atherosclerotic cardiovascular disease; CKD: Chronic kidney disease; GLP-1 RA: Glucagon-like peptide-1 receptor agonist; HbA1c: Glycated hemoglobin; HF: Heart failure; MASH: Metabolic dysfunction-associated steatohepatitis; PwD: People with diabetes; SGLT-2: Sodium–glucose cotransporter-2.

Additional Information

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All authors have reviewed the final version to be published and agreed to be accountable for all aspects of the work.

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