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CLINICAL ARTICLE

Quality of care from the perspective of women with gestational diabetes in China

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ABSTRACT

Objective: To explore the quality of gestational diabetes mellitus (GDM) care experienced by women in China and how it could be improved. *Methods:* A qualitative study was conducted at a municipal hospital in south east China. Women who had been diagnosed with GDM at 34–38 weeks of pregnancy were enrolled during two periods; between May 1 and July 31, 2012, and between April 1 and July 31, 2013. Data regarding patient-perceived care quality were collected through semi-structured individual interviews and were analyzed by qualitative content analysis. *Results:* The study enrolled 44 patients; the interviews recorded a lack of professional care resources for GDM, a lack of high-quality personalized care for women with GDM, and patients' suggestions regarding how to improve GDM care. *Conclusion:* The participants reported a lack of high-quality GDM care, describing the core problem as an imbalance between over-stretched hospitals and low-efficiency under-utilized primary healthcare centers. Clinical-practice reforms identified, particularly in primary healthcare settings, included improving services through increasing the number of health professionals and material resources to comply with diabetes guidelines, and incorporating a humanistic approach in the provision of care.

1. Introduction

Gestational diabetes mellitus (GDM) is a relatively common illness [1]. According to the 2013 Chinese guidelines for diabetes prevention and treatment [2], the incidence of GDM is 4.3% and is increasing. Poorly managed GDM is associated with poor pregnancy outcomes, poor fetal outcomes, and a significantly increased risk of patients developing type 2 diabetes [3]. Providing high-quality care to women with GDM could have far-reaching economic and health benefits [3].

Quality of care is a multidimensional concept and the perspective of patients can play an important role in evaluating and improving care. Patients' opinions on care quality can be formed through interactions with healthcare services and assessments can be made based on patients' expectations and experiences [4]. A recent systematic review described several barriers to improving the quality of GDM care. These factors were related to healthcare providers, healthcare systems, and patients; they included limited access to and significant waiting time when meeting healthcare providers, and a lack of adequate practical information regarding diet and exercise [5]. Some problems concerning healthcare services in China were highlighted in a study [6] that described inefficient use of healthcare resources, unsatisfactory implementation of disease-management guidelines, and inadequate health insurance. However, to the best of our knowledge, no previous studies have specifically explored the quality of GDM care in China.

Consequently, the aim of the present study was to explore the quality of GDM care and how it can be improved from the perspective of women with GDM living in China.

2. Materials and methods

The present qualitative study [7] was performed at two hospitals in south east China during two periods; between May 1 and July 31, 2012, and between April 1 and July 31, 2013. One of the study facilities was the obstetric clinic of a provincial hospital; the other was the obstetric clinic and the obstetric ward of a municipal hospital. The present study enrolled consecutive patients attending the study sites during the study periods who met the inclusion criteria: being aged at least 16 years, having received a diagnosis of GDM [8], at 34–38 weeks of pregnancy, and being able to speak Mandarin Chinese fluently. The study was approved by the Ethics Committee of Fujian University of Traditional Chinese Medicine and the management of the study institutions. Written informed consent was obtained from all patients to participate in the study.

Data were collected through semi-structured individual interviews. An interview guide, developed by the study investigators, including open-ended questions about the quality of GDM care was used for data collection (Box 1). Following completion of the consent forms,

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Box 1
Interview guide: Questions about quality of GDM care.

- What is your experience of the accessibility of GDM care when you need it?
- What do you expect from the one/those who you are seeking advice/care from?
- Is there anything that you experience as being difficult in your contact with the healthcare staff who are taking care of you?
- How do you think good care for a person with GDM should be designed?
- Is there anything you think that you are lacking in terms of the care you receive for your GDM?
- How do you think a good carer should behave?

participants completed face-to-face individual interviews with an investigator (L.G.) in a room at the study institution. Each interview lasted 40–60 minutes and was documented with a digital audio recorder before being transcribed verbatim in Chinese and then translated into English by an investigator (L.G.). Enrollment continued until thematic saturation was reached.

Qualitative content analysis was performed using the methods described by Graneheim and Lundman [9]; both manifest and latent content analysis was used. The transcribed text was reviewed several times to obtain a sense of the whole; the content was then divided into meaning units, which were considered to be words or sentences conveying, within their context, a specific idea. The meaning units were condensed, extracted, and coded. Codes were compared based on differences and similarities; the codes were sorted into categories that shared a commonality of codes, constituting the manifest content. The codes and categories were discussed by the authors, who considered the sociocultural context of the ideas expressed. Finally, the underlying meanings in categories were linked together; these were formulated into themes, constituting the latent content.

3. Results

In total, 44 patients with GDM from both rural and urban communities were enrolled and interviewed before thematic saturation was reached. Among the participants, 28 women were recruited from the provincial hospital site and 16 were recruited from the municipal hospital site. The median age of participants was 30 (range 21–40) years (Table 1). The interviews recorded three major themes: a lack of professional care resources for GDM, a lack of high-quality personalized care for GDM, and patients' suggestions regarding improvements to GDM care.

The first theme included three categories: a lack of medical resources and trust in primary healthcare centers, overworking of staff in well-utilized hospitals, and difficulties accessing professional medical care (Table 2). Participants described low-efficiency among underutilized primary healthcare centers, and a lack of health professional and material resources there, resulting in low-quality care. Patients reported lacking trust in primary healthcare centers and a preference to attend hospitals despite long waiting times to see a doctor. Conversely, interviewees described staff in well-utilized hospitals being overloaded with work, resulting in challenges when accessing professional medical care in hospitals; one participant stated, "My temper would also be bad if I had to be a doctor because of there being so many patients." The interviews recorded difficulty in accessing medical professionals and undergoing examinations. A participant recounting having to wake up at 5AM to go to the hospital and returning home at 5PM after the appointment; another reported having dialed the reservation hotline more than 100 times to make an appointment.

Table 1
Participant characteristics (n = 44).[a]

Variable	Value
Age, y	30 (21–40)
Recurrence of GDM	
Yes	1 (2)
No	42 (95)
Unknown	1 (2)
Treatment being taken for GDM at enrollment	
No treatment	1 (2)
Diet and exercise	42 (95)
Insulin	1 (2)
Current supplement use[b]	
Yes	22 (50)
No	22 (50)
Parity	
Nulliparous	32 (73)
Parous	12 (27)
Educational level completed[c]	
Junior secondary education (9 y)	10 (23)
Senior secondary education (12–13 y)	16 (36)
Higher education (15–19 y)	18 (41)
Employment status	
Employed	22 (50)
Unemployed	19 (43)
Currently taking sick leave	3 (7)
Current relationship	
Married	42 (95)
Cohabiting	1 (2)
Single	1 (2)

Abbreviation: GDM, gestational diabetes mellitus.
[a] Values are given as median (range) or number (percentage).
[b] Including multivitamins, minerals, protein powder, and docosahexaenoic acid.
[c] Classified according to China Statistical Yearbook 2014 [10].

The second theme was a lack of high-quality personalized care for GDM. The categories in this theme were: a lack of appropriate, personalized, and continuous care; a lack of a humanistic approach to care; and a lack of healthcare education (Table 3). Within this theme, a patient recounted, "Doctors are very busy. It's impossible for them to be able to talk to you in a personalized caring manner." Patients thought that doctors did not carefully consider their individual situation and that their pregnancy and GDM care lacked continuity. A participant questioned what care could be provided during a 5-minute appointment with a doctor. Other sentiments expressed included short and inadequate communication resulting in misunderstandings between staff and patients, staff becoming impatient with patients, and fears of bothering doctors arising from the doctors' high status. Interviewees also mentioned that hospital environments lacked comfort and privacy (e.g. insufficient seating for clients and no private space where medical examinations could be performed). A report described an unknown man's face appearing between the curtains during an ultrasonography examination; the patient described this experience as terrible. Patients reported lacking knowledge about pregnancy and GDM and not knowing how to access such information, with this being described as like walking in the dark. Participants reported that the explanations given by health professionals regarding GDM were not explicit, lacked detail, and did not provide clear answers. Respondents also spoke of not having access to a health-counseling system and problems with a series of lectures about pregnancy and GDM; one lecture attendee described the experience, "The lecture room was noisy. The lecturer seemed to be in hurry and didn't explain in detail. I felt the lecture didn't help me, so I didn't go there again."

The third theme uncovered in the interviews was patients' suggestions regarding improvements to GDM care (Table 4). Patients' suggestions included increasing the number of professionals and material resources for prenatal care, expanding healthcare education regarding pregnancy and GDM, optimizing clinical pathways of GDM, improving professional GDM care, and incorporating a humanistic approach to care. Participants expressed the belief that the incidence of GDM could

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