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Development of the Third-trimester Pregnancy Knowledge Questionnaire (TPKQ): A Pilot Study

Nurul Jannah[1], Gunavathy Selvarajh[2]

[1,2]School of Nursing and Applied Science, Lincoln University College, Selangor, Malaysia;

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Corresponding Author:

Nurul Jannah
BOA: School of Nursing and Applied Science, Lincoln University College, Selangor, Malaysia
Email: jannah.phdscholar@lincoln.edu.my

ABSTRACT

Background: Maternal knowledge during the third trimester is critical for timely care-seeking and preparation for childbirth, yet standardized instruments specific to this phase remain limited. Objective: This study aimed to develop and pilot test the Third-trimester Pregnancy Knowledge Questionnaire (TPKQ). Methods: A methodological pilot study involved four experts and 110 third-trimester pregnant women. Items were derived from literature and organized into four dimensions: danger signs and care-seeking, birth preparation and delivery planning, preventive care before birth, and maternal conditions affecting labor outcomes. Content validity was assessed using Item and Scale Content Validity Indexes, response-based validity via corrected item–total correlations, and internal consistency with Cronbach's alpha. Results: The TPKQ includes 10 multiple-choice items with dichotomous scoring. All items showed acceptable content validity (I-CVI = 0.75–1.00; S-CVI/Ave = 0.93), adequate discrimination (r = 0.36–0.46), and good reliability (α = 0.81). Dimension scores suggested higher knowledge of danger signs and lower knowledge of preventive care. Conclusion: The TPKQ demonstrates preliminary validity and reliability.

Keywords: Third-Trimester Pregnancy; Maternal Knowledge; Instrument Development; Pilot Study; Questionnaire Validation

1. INTRODUCTION

The third trimester of pregnancy represents a transitional phase toward childbirth, characterized by pronounced physiological changes, heightened awareness of warning signs, and increasing demand for informed decision-making related to maternal health care. During this period, pregnant women are required to interpret health information accurately to understand their pregnancy status and select appropriate health-related behaviors. Therefore, maternal knowledge plays an important role in shaping how women perceive pregnancy-related risks and engage in available health services. Nevertheless, existing evidence indicates that levels of maternal knowledge during late pregnancy vary widely and, in many settings, remain insufficient, particularly with regard to prevention of complications and optimal use of maternal health services.

A growing body of observational research has documented meaningful associations between maternal knowledge and various maternal health indicators. Lower levels of knowledge have been associated with a higher prevalence of anemia among women in the third trimester (Arfan et al., 2024), whereas higher knowledge levels have been linked to greater adherence to recommended health practices, including iron–folic acid supplementation (Kassa et al., 2019) and compliance with standard antenatal care visit schedules (Kassa et al., 2025). In addition, several studies have reported that maternal knowledge is related to the intention and acceptance of vaccination during pregnancy, although the magnitude of these associations varies across study contexts and research designs (Worku et al., 2023; Egloff et al., 2022).

Despite the consistent reporting of associations between maternal knowledge and pregnancy-related outcomes, the available evidence is largely derived from cross-sectional studies and not intended to establish causal relationships. Moreover, maternal knowledge is frequently treated as a secondary explanatory variable, with limited attention paid to how it is measured. In many studies, knowledge assessment relies on ad hoc questionnaires or instruments developed for specific domains, such as anemia, vaccination, or birth preparedness, without detailed reporting of the underlying development process (Bhattacharya et al., 2022; Monteiro et al., 2023). This

heterogeneity in measurement approaches contributes to the variability in findings and limits the comparability across studies.

These methodological limitations become particularly salient during the third trimester of pregnancy. Most existing pregnancy knowledge instruments are not specifically designed for late pregnancy, despite the distinct informational needs and clinical priorities that emerge as childbirth approaches. During this phase, women often require focused knowledge related to prevention of complications, readiness for delivery, and intensified maternal–fetal changes. Instruments that are generally in the scope or designed for earlier stages of pregnancy may therefore lack sensitivity to the knowledge domains most relevant in the third trimester. Furthermore, few instruments have undergone a systematic, stepwise development process that includes a comprehensive literature review, expert content evaluation, and preliminary testing among the target population (Krishnaswamy et al., 2019).

Accordingly, the primary gap in the literature does not lie in the absence of evidence supporting the relevance of maternal knowledge but rather in the limited availability of appropriate measurement tools. To date, there is no concise, well-documented questionnaire specifically developed to assess maternal knowledge during the third trimester. The absence of such an instrument constrains consistency in measurement, hinders meaningful comparisons across studies, and complicates the assessment of educational needs of women approaching childbirth.

In response to this gap, the present study focuses on the development and pilot testing of a dedicated instrument for assessing maternal knowledge in late pregnancy, namely, the *Third-trimester Pregnancy Knowledge Questionnaire (TPKQ).* This study did not aim to evaluate causal relationships between maternal knowledge and pregnancy outcomes. Instead, it seeks to establish an initial instrument framework by developing relevant knowledge domains, examining item feasibility, and assessing clarity and acceptability through expert review and pilot testing. Through this approach, the TPKQ is intended to provide a methodological foundation for future research, including comprehensive psychometric validation and broader applications in maternal health research and practice.

2. METHOD

Study Design

This research was conducted as a methodological pilot study aimed at the early-stage development of a pregnancy knowledge assessment instrument. This study emphasized systematic item construction, expert-based content appraisal, and preliminary field testing to examine the clarity and feasibility of the questionnaire prior to any large-scale psychometric validation. This approach is commonly recommended in instrument development research to ensure conceptual coherence and practical applicability before advancing to more complex measurement testing (Boateng et al., 2018).

Participants and Study Setting

Two distinct participant groups were involved in the different phases of the instrument development process: a panel of subject-matter experts and a group of pregnant women representing the target population.

Expert Review Panel

The expert panel comprised four professionals with extensive experience in maternal health, including midwifery academics, senior-practicing midwives, and clinical psychologists with expertise in perinatal care. Experts were recruited based on their academic background and clinical experience. Their role was to evaluate the preliminary questionnaire items in terms of relevance, clarity, and conceptual appropriateness to assess maternal knowledge during the third trimester of pregnancy.

Pilot Study Participants

Pilot testing was carried out among 110 pregnant women in their third trimester who were attending routine antenatal care services at public primary health centers (*Puskesmas*) in the Semarang District. This group represented the intended end-users of the instrument and provided initial data on item comprehensibility and response feasibility.

The eligibility criteria for participation included (1) gestational age of more than 28 weeks, (2) maternal age between 20 and 40 years, (3) ability to read and understand the Indonesian language, and (4) voluntary agreement to participate in the study. Pregnant women with severe obstetric complications, acute medical conditions requiring immediate treatment, or incomplete questionnaire responses were excluded from analysis.

Sampling and Recruitment Procedure

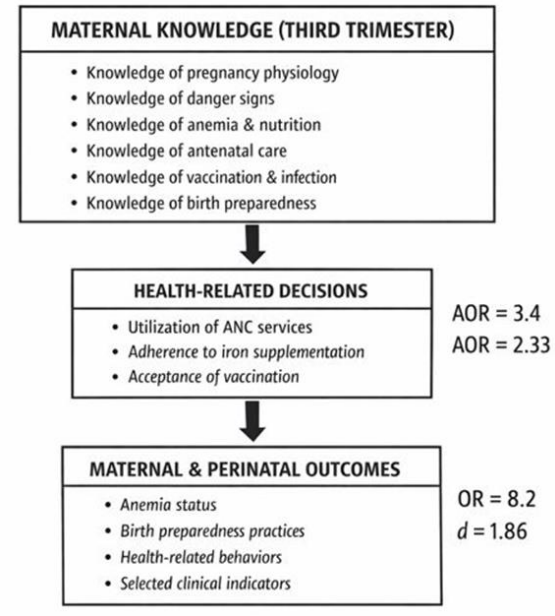
A purposive sampling strategy was used to recruit participants during the pilot phase. Recruitment took place during routine antenatal care visits to public primary health centers operating under the supervision of the Semarang City Health Office in March 2025. Trained research assistants approached eligible women, provided a detailed explanation of the study aims and procedures, and invited them to participate. Written informed consent was obtained from all participants prior to data collection.

Instrument Development Process

The development of the Third-trimester Pregnancy Knowledge Questionnaire (TPKQ) followed a structured process beginning with a review of relevant literature and clinical guidelines to identify key knowledge domains relevant to late pregnancy. An initial pool of items was generated to reflect these domains and was subsequently reviewed by an

expert panel. Feedback from the expert review informed pregnant women about item refinement, wording adjustments, and content alignment prior to pilot administration.

Conceptual Framework and Instrument Development

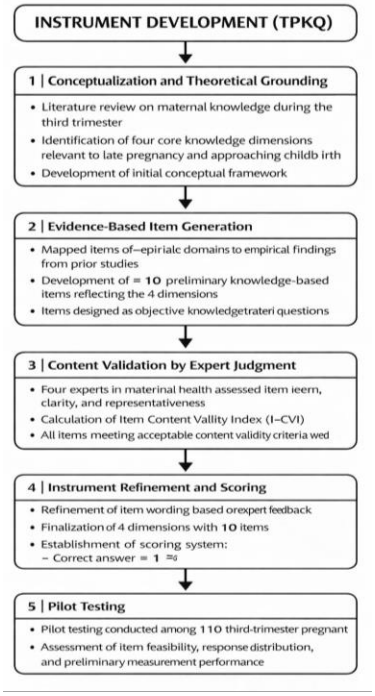


The conceptual framework illustrates maternal knowledge in the third trimester as a multidimensional construct that underpins health-related decisions and is associated with selected maternal and perinatal outcomes. Maternal knowledge is conceptualized to encompass understanding of pregnancy-related health risks, recognition of danger signs, awareness of anemia and nutrition, knowledge of antenatal care, vaccination and infection prevention, and preparation for childbirth. Informed by prior empirical studies, the framework proposes that higher levels of maternal knowledge are associated with more appropriate health-related decisions, including utilization of antenatal care services, adherence to iron supplementation, and acceptance of recommended vaccinations. These decisions are, in turn, associated with maternal and perinatal indicators such as anemia status, birth preparedness practices, and health-related behaviors. The framework does not imply causality but provides an evidence-informed structure to guide the development of the Third-trimester Pregnancy Knowledge Questionnaire (TPKQ) and to support content relevance in the context of late pregnancy. The statistical indicators presented are drawn from prior studies and are used solely to illustrate empirical relevance, not to imply causal relationships within the proposed framework."

Figure 2. Conceptual framework illustrating the relationship between third-trimester maternal knowledge, health-related decisions, and maternal and perinatal outcomes. The framework is derived from empirical evidence demonstrating significant associations between maternal knowledge and antenatal care utilization (AOR ≈ 3.4), vaccination acceptance (AOR = 2.33), anemia status (OR = 8.2), and selected perinatal indicators (effect size *d* = 1.86) (Arfan et al., 2024; Kassa et al., 2019; Worku et al., 2023; Kurniasari et al., 2025).

Phases of Instrument Development

The childbirth readiness instrument was developed in the following sequential phases:



Phase 1: Conceptualization and Theoretical Grounding

A literature review on maternal knowledge during the third trimester was conducted to identify knowledge areas most relevant to late pregnancy and the period approaching childbirth. This process led to the identification of four core knowledge dimensions and the development of an initial conceptual framework.

Phase 2: Evidence-Based Item Generation

Knowledge domains were mapped to empirical findings from previous studies to guide item development. Based on this mapping, ten preliminary items were generated to reflect factual knowledge across the four dimensions, with all items designed as objective knowledge questions.

Phase 3: Content Validation by Expert Judgment

Four maternal health experts evaluated each item for relevance, clarity, and representativeness. Item Content Validity Index (I-CVI) values were calculated, and all items that met acceptable content validity criteria were retained for further refinement.

Phase 4: Instrument Refinement and Scoring

Item wording was refined based on expert feedback, and the instrument was finalized with four dimensions comprising ten items. A dichotomous scoring system was established, with correct responses scored as one and incorrect responses scored as zero.

Phase 5: Pilot Testing

The refined instrument was pilot tested among 110 third-trimester pregnant women to assess feasibility, response distribution, and preliminary measurement performance.

Figure 2. Phases of Instrument Development Third-trimester Pregnancy Knowledge Questionnaire

Data Collection Procedures
Data collection was conducted among third-trimester pregnant women who met the inclusion criteria during routine antenatal care visits to primary health-care facilities. The participants were recruited using a purposive approach. Prior to questionnaire administration, all eligible participants received a clear explanation of the study objectives, procedures, and data confidentiality. Participation was voluntary, and written informed consent was obtained before data collection, which was administered either in printed or electronic format and self-completed by the participants. Assistance from the researcher or trained health personnel was provided when necessary to ensure comprehension of instructions. All items were completed in a single session, and discussions among participants during the questionnaire completion were not permitted. Questionnaire completeness was verified at the time of data collection to ensure that no missing responses were recorded.

Validity and Reliability Testing of the Instrument
Validity and reliability testing were conducted as part of the pilot study to evaluate the preliminary performance and feasibility of the Third-trimester Pregnancy Knowledge Questionnaire (TPKQ) prior to further psychometric validation.

Validity Assessment
Content validity was assessed by expert judgment. Four maternal health experts evaluated each item in terms of the relevance, clarity, and representativeness of the construct being measured. Item evaluation was conducted using a four-point relevance scale, with higher scores indicating greater relevance. The Item Content Validity Index (I-CVI) was calculated as the proportion of experts assigning a relevance rating of 3 or 4 to each item. Scale-level content validity was calculated using the averaging method (S-CVI/Ave). Items meeting acceptable content validity thresholds were retained for subsequent analysis, and response-based validity was examined using pilot data through descriptive statistics and corrected item–total correlation analysis. Items demonstrating adequately corrected item–total correlations were considered to have acceptable discriminative ability and were retained in the instrument.

Reliability Assessment
The internal consistency reliability of the TPKQ was evaluated using Cronbach's alpha for the dichotomously scored items. This analysis assessed the extent to which the items consistently measured maternal knowledge during the third trimester of pregnancy. An acceptable reliability coefficient was interpreted as evidence of sufficient internal consistency during the pilot-testing stage.

Data Analysis
Data analysis was performed using a statistical software. Participant characteristics were summarized using descriptive statistics including frequencies, percentages, means, and standard deviations. The TPKQ scores were calculated by summing the number of correct responses across all items, resulting in a total score ranging from 0 to 10. Content validity results were reported using the I-CVI and S-CVI/Ave values, while response-based validity was evaluated through corrected item–total correlations. The internal consistency reliability was reported using Cronbach's alpha. All analyses focused on assessing the preliminary measurement properties of the instrument and were not intended to test causal relationships among variables.

Ethical Considerations
This study was approved by the Research Ethics Committee of the Health Polytechnic of the Ministry of Health, Semarang. All participants voluntarily participated after receiving a clear explanation of the study objectives and procedures. Confidentiality and anonymity of the data were maintained.

3. RESULTS AND DISCUSSION

RESULTS

Participant Characteristics
A total of 110 pregnant women in their third trimester were included in the pilot testing of the Third-trimester Pregnancy Knowledge Questionnaire (TPKQ). The participants represented a range of maternal ages, gestational stages within the third trimester, educational backgrounds, and parity statuses. The distribution of the participant characteristics is presented in Table 1.

Table 1. Sociodemographic and Obstetric Profile of Pilot Study Participants (n = 110)

Characteristic	Category	n (%)
Maternal age (years)	20–29	44 (40.0)
	30–40	66 (60.0)
Gestational age (weeks)	28–32	51 (46.4)
	33–36	37 (33.6)
	≥37	22 (20.0)
Educational attainment	Secondary or below	62 (56.4)

Characteristic	Category	n (%)
	Higher education	48 (43.6)
Parity status	Primigravida	48 (43.6)
	Multigravida	62 (56.4)

Most participants were aged between 30 and 40 years, accounting for 60.0% of the sample, whereas 40.0% were aged 20–29 years. Nearly half of the respondents were at 28–32 weeks of gestation, followed by those at 33–36 and ≥37 weeks. More than half of the participants had an educational level of secondary school or below, and slightly more than half were multigravida. This distribution reflects a heterogeneous group of pregnant women in their third trimester, and supports the feasibility of using the TPKQ across varying maternal backgrounds in the pilot setting.

Content Validity Assessment

Content validity was evaluated using an expert panel of four maternal health experts. Each item is rated on a 4-point scale. The Item Content Validity Index (I-CVI) was calculated as the proportion of experts assigning a relevance score of 3 or 4 to each item.

Table 2. Expert-Based Content Validity of the TPKQ (I-CVI)

Dimension	Item Code	I-CVI	Expert Decision
Danger Signs & Care-Seeking	DS-1	1.00	Retained
	DS-2	1.00	Retained
	DS-3	0.75	Retained
Birth Preparation & Planning	BP-1	1.00	Retained
	BP-2	0.75	Retained
	BP-3	1.00	Retained
Preventive Care Before Birth	PC-1	1.00	Retained
	PC-2	0.75	Retained
Maternal Conditions Affecting Labor	MC-1	1.00	Retained
	MC-2	1.00	Retained

The content validity of the Third-trimester Pregnancy Knowledge Questionnaire (TPKQ) was evaluated through expert judgment involving four maternal health experts with academic and clinical experience. Each item was independently assessed for relevance using a four-point rating scale, and the Item Content Validity Index (I-CVI) was calculated as the proportion of experts assigning a relevance score of either 3 or 4. The results demonstrated that all ten items achieved acceptable content validity. Most items had an I-CVI value of 1.00, indicating unanimous agreement among experts regarding item relevance. Three items (DS-3, BP-2, and PC-2) obtained an I-CVI of 0.75, reflecting agreement from three out of the four experts, which remains acceptable for a four-expert panel. No items fell below the recommended retention threshold and all items were retained for pilot testing.

At the scale level, the content validity index calculated using the average method (S-CVI/Ave) was 0.93, indicating excellent overall content validity of the TPKQ at the pilot stage. These findings suggest that the items adequately represent the intended knowledge domains relevant to pregnant women in their third trimester.

Response-Based Validity

Response-based validity was examined using descriptive statistics and corrected item–total correlations.

Table 3. Response-Based Validity of TPKQ Items (Pilot Study, n = 110)

Dimension	Item Code	Mean	SD	Corrected Item–Total r	Decision
Danger Signs & Care-Seeking	DS-1	0.82	0.39	0.46	Valid
	DS-2	0.77	0.42	0.43	Valid
	DS-3	0.72	0.45	0.41	Valid
Birth Preparation & Planning	BP-1	0.79	0.41	0.44	Valid
	BP-2	0.68	0.47	0.38	Valid
	BP-3	0.73	0.45	0.40	Valid
Preventive Care Before Birth	PC-1	0.70	0.46	0.36	Valid
	PC-2	0.71	0.45	0.37	Valid
Maternal Conditions Affecting Labor	MC-1	0.78	0.41	0.42	Valid
	MC-2	0.77	0.42	0.41	Valid

Response-based validity was examined using descriptive statistics and corrected item–total correlations derived from pilot data collected from 110 pregnant women during their third trimester. Item means ranged from 0.68 to 0.82, indicating adequate variability in response patterns, and suggesting that items were neither excessively easy nor overly difficult for the target population. The Corrected item–total correlation coefficients ranged from 0.36 to 0.46 across all items. All items exceeded the commonly accepted minimum threshold of 0.30, indicating satisfactory item discrimination and meaningful contribution to the overall scale. Based on these results, all ten items were classified as valid at the response level and retained for further analysis.

Internal Consistency Reliability
The internal consistency reliability of the TPKQ was assessed using Cronbach's alpha for the dichotomous items.

Table 4. Internal Consistency Reliability of the TPKQ

Scale	Number of Items	Cronbach's α	Item–Total Correlation Range
TPKQ (Total Scale)	10	0.81	0.36–0.46

The internal consistency reliability of the TPKQ was assessed using Cronbach's alpha for the dichotomously scored items. The total scale demonstrated a Cronbach's alpha coefficient of 0.81, indicating good internal consistency for the pilot-stage instrument. Item–total correlation values ranged from 0.36 to 0.46, further supporting the homogeneity of the items in measuring a common underlying construct of maternal knowledge during the third trimester. These results suggest that the TPKQ exhibits adequate reliability for preliminary use and warrants further psychometric evaluation using larger samples.

Dimension-Level Descriptive Scores
Mean scores were calculated for each knowledge dimension to explore the patterns of maternal knowledge during the third trimester.

Table 5. Dimension-Level Descriptive Statistics of TPKQ Scores

Dimension	Item Codes	Mean	SD
Danger Signs & Care-Seeking	DS-1–DS-3	2.31	0.62
Birth Preparation & Planning	BP-1–BP-3	2.08	0.71
Preventive Care Before Birth	PC-1–PC-2	1.41	0.58
Maternal Conditions Affecting Labor	MC-1–MC-2	1.56	0.49
Total TPKQ Score	**All items**	**7.36**	**1.48**

A descriptive analysis was conducted to examine the patterns of maternal knowledge across the four dimensions of the TPKQ. Among the dimensions, the highest mean score was observed for danger signs and career seeking (mean = 2.31, SD = 0.62), indicating relatively stronger knowledge of recognizing critical warning signs and appropriate care-seeking behaviors. This was followed by Birth Preparation and Delivery Planning (mean = 2.08; SD = 0.71). Lower mean scores were observed for Preventive Care Before Birth (mean = 1.41, SD = 0.58), suggesting potential gaps in the knowledge related to preventive interventions during late pregnancy. Maternal Conditions Affecting Labor Outcomes dimension demonstrated a moderate mean score (mean = 1.56, SD = 0.49). The overall mean total TPKQ score was 7.36 (SD = 1.48) out of a possible score of 10, reflecting moderate to high overall knowledge levels among the pilot participants while also highlighting variability across domains. Overall, TPKQ demonstrated strong preliminary measurement properties. All items met the acceptable content validity criteria, showed adequate response-based validity, and contributed to a reliable total scale. Dimension-level scores indicated variability across domains, with relatively higher knowledge observed in danger sign recognition and lower scores in preventive care knowledge, thus supporting the multidimensional structure of the instrument.

DISCUSSION

Principal Findings
This study aimed to develop and conduct a pilot evaluation of the third-trimester pregnancy knowledge questionnaire (TPKQ) as an instrument designed to assess maternal knowledge during late pregnancy. Overall, the findings indicate that TPKQ demonstrates strong preliminary measurement properties. All items achieved acceptable content validity based on expert judgment. Response-based analyses supported item-level performance, and internal consistency reliability reached a satisfactory level for a pilot-stage instrument. These results suggest that the TPKQ is a feasible and conceptually sound tool for assessing knowledge in pregnant women in their third trimester.

Content Validity and Conceptual Relevance
The content validity assessment showed that all items met acceptable I-CVI thresholds, with most items receiving unanimous agreement from experts regarding their relevance. The high scale-level content validity index (S-CVI/Ave = 0.93) indicated that the items adequately represented essential knowledge domains relevant to late pregnancy. This finding aligns with methodological recommendations that emphasize expert review as a critical step in early-stage instrument development to ensure conceptual clarity and content relevance (Boateng et al., 2018).
Importantly, the four dimensions underlying the TPKQ—danger signs and care-seeking, birth preparation and delivery planning, preventive care before birth, and maternal conditions affecting labor outcomes—were derived directly from empirical evidence. Previous studies have consistently demonstrated associations between maternal knowledge in these domains and outcomes such as readiness for childbirth, utilization of antenatal care services,

adherence to preventive interventions, and maternal health indicators (Bhattacharya et al., 2022; Kassa et al., 2019; Patel et al., 2022). The expert agreement observed in this study supports the relevance of these domains in assessing knowledge in the third trimester.

Response-Based Validity and Item Performance

Response-based validity analysis indicated that all items exhibited adequate variability and acceptable corrected item–total correlations. The observed correlation coefficients exceeded the commonly recommended minimum thresholds, suggesting that each item meaningfully contributed to the overall construct of maternal knowledge. These findings indicate that the items were neither overly difficult nor trivial for the target population, which is a key consideration in pilot instrument development. The use of objective multiple-choice items with dichotomous scoring further strengthens the interpretability of the results. Objective knowledge formats are widely recommended for assessing factual knowledge as they reduce subjective bias and allow clearer differentiation between correct and incorrect understanding (Kassa et al., 2019; Worku et al., 2023). The satisfactory item performance observed in this study supports the appropriateness of this format for measuring maternal knowledge during late pregnancy.

Internal Consistency Reliability

The TPKQ demonstrated good internal consistency with a Cronbach's alpha coefficient of 0.81. This value is considered acceptable for a pilot-stage instrument, and indicates that the items function cohesively to measure a common underlying construct. Although high reliability alone does not guarantee validity, the combination of acceptable reliability and strong content validity provides preliminary evidence that the TPKQ is internally coherent and suitable for further testing. Comparable studies assessing maternal knowledge using structured questionnaires have reported similar reliability estimates in the pilot stage (Bhattacharya et al., 2022; Monteiro et al., 2023), suggesting that the reliability observed in this study is consistent with existing research in the field.

Patterns of Maternal Knowledge Across Dimensions

Dimension-level descriptive analysis revealed variations in knowledge across domains. Higher mean scores were observed in the domains of danger signs and care-seeking, as well as birth preparation and delivery planning, indicating relatively stronger awareness in areas closely related to immediate pregnancy risks and childbirth readiness. In contrast, lower mean scores were observed for preventive care before birth, suggesting potential gaps in knowledge related to antenatal preventive interventions. These findings are consistent with prior studies reporting that while pregnant women may recognize obvious danger signs, knowledge related to preventive care, —such as the purpose of antenatal visits, supplementation, and vaccination, is often less well understood (Kassa et al., 2025; Worku et al., 2023). The ability of the TPKQ to capture such variability supports its potential usefulness in identifying domain-specific knowledge gaps during late pregnancy.

Implications for Research and Practice

The development of the TPKQ addresses an important gap in the literature, namely the lack of a concise and phase-specific instrument for assessing maternal knowledge during the third trimester. By focusing on knowledge domains that are directly relevant to the childbirth period, the TPKQ offers a targeted approach that may complement broader pregnancy knowledge assessments. The TPKQ provides a foundation for future psychometric validation studies, including factor analysis and testing across diverse populations. In practice, the instrument may support needs assessment and the design of targeted educational interventions aimed at improving maternal knowledge in late pregnancy, particularly in areas related to preventive care and preparedness for delivery.

Limitations and Future Directions

This study had several limitations. First, this study was conducted as a pilot study with a single sample of pregnant women recruited from primary health-care settings, which may limit its generalizability. Second, the study focused on preliminary measurement properties and did not assess construct validity or test–retest reliability. Third, the cross-sectional nature of the pilot data precludes examination of the relationships between knowledge scores and clinical outcomes. Future studies should involve larger and more diverse samples to further evaluate the psychometric properties of the TPKQ, including its factor structure, measurement invariance, and predictive validity. Longitudinal designs may also help clarify how maternal knowledge assessed by the TPKQ relates to health behaviors and outcomes over time.

4. CONCLUSION

In conclusion, this pilot study provides preliminary evidence that the Third-trimester Pregnancy Knowledge Questionnaire (TPKQ) is a feasible, content-valid, and reliable instrument for assessing maternal knowledge during late pregnancy. The findings support its potential utility as a research and screening tool, underscoring the need for further validation before its widespread application.

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