

# Introduction

The corpus of medical cuneiform texts on women's health from ancient Mesopotamia forms the largest ancient medical text corpus devoted to women, beside comparable material preserved in the Egyptian medical papyri and the gynaecological treatises in the Hippocratic Corpus. The present book presents an edition and discussion of all texts from the first millennium BCE Mesopotamia identified to date that deal with female health matters, a corpus of more than 100 texts and fragments. Cuneiform healing texts devoted to women, like the Mesopotamian medical corpus in general, can be divided into several distinct "genres" or text groups: a) diagnostic texts, giving a symptom description, diagnosis and prognosis, but usually excluding a therapeutic recommendation, b) therapeutic texts, which comprise medical prescriptions, incantations and ritual procedures. In addition, Mesopotamian healing specialists collected compendia on *materia medica*, which can take the form of drug descriptions or pharmaceutical handbooks that list plant names together with their uses and forms of applications, including their usages for women's conditions.<sup>1</sup> Finally, in the first millennium BCE, scholarly commentaries on medical texts were written, among which are also a few commentaries on medical compendia and treatises concerned with women.

## 1 Previous Studies

Among the first publications of medical cuneiform texts containing material relating to women's conditions are Thompson's *Assyrian Medical Texts* (1923), Ebeling's *Keilschrifttexte aus Assur religiösen Inhalts* (1919–1923) and Falkenstein's *Literarische Keilschrifttexte aus Uruk* (1931). Among the pioneering works, R. Labat presented an edition of the *Diagnostic Handbook SA.GIG* in 1951, which included text witnesses for Tablet 36 and 37, which deal with pregnant women, birth prognoses and medical diagnoses for female patients. New texts from the second and first millennium BCE were steadily added in the following years and decades, for instance in *The Sultantepe Tablets I and II* by Gurney, Finkelstein and Hulin (1957–1964) and in Lambert's (1965, 1969) contributions to the subject. In 1964 and 1971 F. Köcher published copies of a group of 20 tablets and fragments of therapeutic women's healthcare texts mostly from Assur including material previously found in KAR and LKU in his *Assyrische und babylonische Medizin*, Volumes 3 and 4 (BAM 235–251, BAM 347, BAM 363 and BAM 408). Further key publications that contributed new material to the corpus of women's healthcare texts are found in the editions of tablets from Late Babylonian Uruk by Hunger (1976) and von Weiher (1993, 1998), in Finkel's (2000) publication of a medical archive from Sippar, as well as in Reiner (1982), Schwemer (2007, No. 41), Steinert (2012b), Scurlock (2014a, 245–257, 571–619), Farber (2014, "RA" and "SpTU"), Meinhold (2017, no. 16), Bácskay (2018a, 108–112), Abusch et al. (2020, CMAwR 3, texts 5.1–5.6, 5.8–5.10), to name but a few.

Incantations devoted to women's health matters have also been the subject of numerous Assyriological publications and studies through the years. Important contributions are found in van Dijk (1972; 1973; 1975); Finkel (1980), Krebernik (1984), van Dijk, Goetze and Hussey (1985), Röllig (1985), Veldhuis (1991), Cunningham (1997), Collins (1999), Michel (2004), Rudik (2011), Barjamovic (2015), George (2016), Wasserman and Zomer (2022) as well as via the website of *Sources of Early Akkadian Literature* (SEAL). Another fundamental study on women, reproduction and medicine in Mesopotamian cultures to this day is Stol's *Birth in Babylonia and the Bible* (2000), complemented by his much broader monograph on *Women in the Ancient Near East* (2016).

The available textual material on women's health has steadily grown over the years, and several studies discuss selected texts or offer overviews (e.g. Veldhuis 1989; Stol 2000; 2016, 436–458; Scurlock and Andersen 2005, 259–283; Böck 2010; Scurlock 2014b; Minen 2018; Steinert 2021a), or discussions of specific topics, such as the scope of Mesopotamian medicine for women and underlying gender constructions (Heeßel 2006; Couto-Ferreira 2018d), concepts of the female body (Böck 2013; 2014–2016; Steinert and Paoletti 2014–2016; Steinert 2017a; 2017b; Couto-Ferreira 2017, 2018a; 2018c), fertility and con(tra)ception (Böck 2013; Couto-Ferreira 2013), embryology (Stol 2008; Couto-Ferreira 2015–2016), pregnancy (Couto-Ferreira 2013), birth (Stol 2000; 2012; Volk 2004; Couto-Ferreira 2014), female blood and body fluids (Steinert 2012b,

<sup>1</sup> For discussion of pertinent passages, see e.g. Stol 2000, 52–55; Couto-Ferreira 2014, 309. On Mesopotamian pharmaceutics, drug compendia and on practical issues connected to the preparation and administration of medical substances, see e.g. Attia and Buisson 2012; Böck 2010b; 2011; 2015; Fincke 2021; Goltz 1974; Herrero 1984; Rumor 2017a, 2024; Scurlock 2014a: 273–293; 2017: 277–280; Stadhouders 2011; 2012; Stol 2002–2005a; 2002–2005b.

2013, 2023), therapeutic strategies (Steinert 2017a; 2020; 2021a). However, no attempt at an edition and systematic study of the *complete* corpus of women's healthcare texts so far identified has ever been undertaken before, and many issues, details and topics linked to the texts are still little understood. The present book hopes to fill some of these gaps and present a somewhat more comprehensive picture of Mesopotamian women's healthcare in the first millennium BCE.

## 2 Historical Overview of the Ancient Mesopotamian Women's Healthcare Texts

### 2.1 The Earliest Texts (3<sup>rd</sup> Millennium to First Half of the 2<sup>nd</sup> Millennium BCE)

From a diachronic angle, spells countering diseases and drug lists with short therapeutic instructions are the texts genres related to healing/medicine with the longest history in Mesopotamia. The former started to be written down already in the mid-third millennium (during the Early Dynastic period), while the earliest examples of pharmaceutic-therapeutic texts come from Ebla (ca. 24th cent. BCE, written in Semitic Eblaite). A few medical prescriptions in Sumerian are attested from the end of the third millennium (Ur III period), but from the Old Babylonian period onward (ca. 1900–1600 BCE), prescriptions from Mesopotamia are exclusively written in the Akkadian language.<sup>2</sup>

The earliest texts related to women's health issues are a few Sumerian and Semitic incantations on tablets from the cities of Fara and Ebla dating to the Early Dynastic period (ca. mid-third millennium BCE), which were recited in the context of childbirth or address the topic of gynaecological bleeding.<sup>3</sup> These compositions were included within collections of various incantations and do not yet feature prescriptions. Among the incantations related to women's health from the end of the third millennium and the first half of the second millennium BCE (Ur III period, Old Assyrian and Old Babylonian periods), we encounter examples in the Sumerian, Akkadian or Elamite language, inscribed on small tablets as single text as well as spells found on tablets with multiple compositions.<sup>4</sup> In some cases, short therapeutic instructions in Akkadian are now appended to the spells, usually consisting of only a few words or a single sentence. Often, however, the therapeutic procedure to be applied together with the spell is integrated and described in the incantation itself. The most common poetic form within spells used for embedding the therapy is the so-called 'Marduk-Ea-dialogue' or 'communication formula'.<sup>5</sup> In this formula, a junior divinity (such as Marduk/Asalluhi) reports the encountered medical problem to a senior deity (such as Ea/Enki) and asks for advice as to what shall be done to treat the patient. The senior deity then communicates the remedy to be applied. This passage from a Sumerian birth incantation known from manuscripts dating to the Ur III and the Old Babylonian period can be taken as an example:

"Enki answered his son Asalluhi:  
 'My son, what do you not know, what shall I add for you?  
 Asalluhi, what do you not know, what shall I add for you?  
 Whatever I know you know too.  
 After you have received fat from a pure cow, cream from a mother-cow,  
 after you have taken what is in the (sleeping) chamber of the agrun'<sup>6</sup>

2 For early examples of medical texts, see e.g. Fronzaroli 1998; Bonechi 2003; Civil 1960; 1961; van Dijk and Geller 2003, 75–76; Haussperger 1997; Geller 2006, 7–12; Attinger 2008, 9–18; Neumann 2010, 3–7; Schwemer 2010b; George 2016, CUSAS 32, No. 72–73; Geller and Panayotov 2020, 1–8. For incantations from the third millennium, see e.g. Cunningham 1997, 5–97; George 2016, No. 1–4; Krebernik 1984; Neumann 2008, 1–15; Rudik 2011.

3 See Cunningham 1997, 34; Krebernik 1984, No. 6A+B, No. 23c, No. 37; Rudik 2011, 318–326, FSB 56–57. The spells against haemorrhage may have been used in the context of pregnancy, as in later texts.

4 For Ur III incantations in Sumerian (birth/bleeding), see e.g. Rudik 2011, 327–336 FSB 58–59; van Dijk 1975, 53–57; Cunningham 1997, 69–75, 96–97. For Old Babylonian incantations in Sumerian, see Finkel 1980 (bleeding); for birth incantations: van Dijk 1975, 62–63 (VAT 8381 (= VS 17, 33)); van Dijk 1975, 66–67 (MLC 1207 (= YOS 11, 85); G. Farber 1984 (E 47.190); Wilcke 1973, 13–14 (John Rylands Library Box 24 E6 (24)); Cohen 1976 (bilingual); Cunningham 1997, 107–108, 131, 134, 137–138, 148–149. For Old Assyrian birth incantations, see Michel 2004; Kouwenberg and Fincke 2012–2013; Barjamovic 2015. For Old Babylonian birth incantations in Akkadian, see van Dijk 1972, 343–344 (VAT 8539 (= VS 17, 34)); van Dijk 1973, 503–507; George 2016, No. 26a, 28a, 29b; Wasserman 2018, *BiOr* 75, 15–20; Wasserman and Zomer 2022, No. 1–14 (OB/OA Akkadian birth incantations); Cunningham 1997, 153, 155–156. For Elamite birth incantations on Old Babylonian tablets, see George 2016, No. 21b; Krebernik 2018, No. 13–14, 45; Cunningham 1997, 99–100, 157, 158; Scurlock 1991, 136–137; Stol 2000, 60–64; Bergmann 2008, 18–19, 22–23.

5 For the 'Marduk-Ea-formula' see e.g. Falkenstein 1931; George 2016; Rudik 2011.

6 The Sumerian word agrun stands for Enki's domain, the subterranean water (abzu), but also denotes the deity's sleeping chamber in temples. In Sumerian birth incantations, the term can metaphorically refer to the womb as a 'chamber' in the body, where the foetus dwells, see Steinert 2017a, 297.

after you have cast the incantation of Eridu over the vulva of the troubled woman from which a cord hangs (variant: after having recited the incantation of Eridu over the back, thighs and flanks of this woman),  
 may it (the baby) be released like rain from heaven,  
 may it run down like drainpipe water from a high roof,  
 ...  
 may it [gush forth] like a river pouring into a swamp,  
 ...  
 may it be smashed like a pot! ...'

Recitation for a 'hastened woman' (viz. a woman in labour) (*šipat aruhtim*).<sup>7</sup>

The appended short Akkadian prescription following the spell gives a slightly varying, straightforward instruction compared with the poetic wording of the incantation:

*ki-ki-ta-ša ɻ.GIŠ ɻ.NUN / tu-ba-al-la-al-ma i-na [KUŠ/SU] bu-di-im ba-am-ti-ša / ki-la-ti-in ta-pa-aš-ša-aš-ma it-ta-aš-ša-a*  
 "The procedure for it: you mix oil and ghee, apply (it) to the skin/flesh of the shoulder(s) (and) both her flanks and it (the baby) will come out."<sup>8</sup>

Although it is very short compared with later prescriptions, the instruction contains most of the salient elements of Mesopotamian medical formulae: an introductory rubric marking the beginning of the prescription, the ingredients, instructions for their preparation and administration, and the expected effect of the treatment (prognosis).<sup>9</sup> The only missing element in comparison with later therapeutic texts is a description of the symptoms or a purpose statement, but these elements are expressed in the incantation itself, which begins with a description of the woman's conception, pregnancy and delivery, including an allusion to a complication ('a cord', i.e. the umbilical cord, is hanging down from the woman's vagina). Enki's instructions to Asalluhi in the spell above provide more detailed information on the treatment that is not conveyed in the recipe, for instance that the spell should be recited over the woman's body, presumably whilst massaging the woman with the ointment.

As examples of the early traditions of therapies for women, the present volume presents two Old Babylonian texts, both of which are related to the context of delivery. The first (text II.1.1, BM 97093) contains a Sumerian incantation for a woman having difficulty in delivery (*šipat mušapšiqtim*) with an appended therapeutic instruction, and an Akkadian birth incantation. The Sumerian incantation features the "classic" dialogue between Enki and Asalluhi and presents parallels to other birth incantations from Old Babylonian and later times. The prescription is remarkable not only because it is reminiscent of the intervention recommended by the god Enki within the spell (in the dialogue with his son), but also because the prescription recurs in its essence in the Neo-Assyrian Birth Compendium (see Wasserman and Zomer 2022, No. 10; Steinert 2017a, 336–339; *infra* text D.1.1 and below for discussion). The second Old Babylonian text edited in this volume (text II.1.2, BM 115745; Wasserman and Zomer 2022, No. 4) is presumably a re-used(?) school tablet inscribed with an arithmetical exercise and an Akkadian birth incantation that is known in varying versions that are found on three other Old Babylonian tablets, all beginning with the well-known sentence: "From the fluids of intercourse, the bone was created" (*ina mē nākim ibbani esemtum*).<sup>10</sup>

Notably, among the preserved Old Babylonian medical texts containing prescriptions known to date, remedies for conditions specific to women seem so far to be absent. One exception may be found in CUSAS 32, No. 73 obv. 14 (George 2016, 167, pl. CXLIII–CXLIV; Bácskay 2018, 33 No. 0), a damaged, one-line prescription possibly treating fever (*išātum*) in a postpartum(?) woman (restore MUNUS *mus[ukkanim]* "impure woman"?).

<sup>7</sup> See UM 29-15-367 ii 14–iii 9; var. VS 17, 33: 15–28 (van Dijk 1975; Cunningham 1997, 69–75).

<sup>8</sup> VS 17, 33: 28–30; see van Dijk 1975, 63–64; George 2016, 142.

<sup>9</sup> In Old Babylonian texts, the instruction may consist merely of the rubric KID.KID.BI "the procedure for it" and the ingredient oil (ɻ.GIŠ), as in George 2016, No. 29b: 30. Other examples of short remedies appended to Old Babylonian spells for women in labour are found in George 2016, 142–143 No. 21b, lines 28'–29', following an Elamite incantation: "You cast (the spell) on oil and massage her<sup>1</sup> belly (with it) seven times straight down, and massage her<sup>1</sup> shoulders seven times straight down" (*ana ɻ.GIŠ ta-na-ad-di-ma 7-šu mi-š[a-r]a-am pa-ap-pa-al-li-ib-bi-šu ta-pa-aš-ša-aš / 7-šu mi-š[a-r]a-am bu-di-šu ta-pa-aš-ša-aš*). Cf. further E 47.190 rev. 7', bottom edge and left edge (G. Farber 1984, 313–316), which lists merely ingredients and a short instruction: "The procedure: reed and ghee, carnelian and lapis lazuli, [...] he/she will pour out for you<sup>2</sup> (fem.)" (*ki-ik-ki-um ɻ.GI ɻ.NUN / sa-am-tum ɻ.uq-ni-um / [...] mJu<sup>2</sup> mu i-na-ad-di-ki-im*).

<sup>10</sup> For the other texts, see Wasserman and Zomer 2022, No. 6, 7, 14.

## 2.2 The Second Half of the 2<sup>nd</sup> Millennium BCE

Women's healthcare texts from the second half of the second millennium BCE are fewer compared with what is preserved from the preceding and following centuries. However, during the Middle Babylonian and Middle Assyrian period important developments took place in the realm of cuneiform medical texts (including materials relating to female conditions), such as the expansion of corpora and the formation of larger compendia or handbooks that include treatises concerned with women.<sup>11</sup>

The following texts from the latter half of the second millennium known to me are concerned with therapies for women. They come from Assur, Nippur as well as from Hattuša and Ugarit, the latter being a witness to the transmission of Babylonian medical texts, including material linked to women's healthcare, to the Western periphery during the Late Bronze Age.<sup>12</sup>

- **BAM 241 (+) VAT 9543 and BAM 242** (edited as text II.1.3 and II.1.3.1):

The three fragments in Middle Babylonian script were found at Assur and presumably belonged to the same two-column tablet. The tablet which must have been imported following Tukulti-Ninurta's I conquest of Babylon (late 13<sup>th</sup> century BCE) and integrated into the so-called library of Tiglath-pileser I (M2), forms the oldest fragmentary compendium that may have exclusively contained therapies for women (incantations and prescriptions).<sup>13</sup>

- **CBS 10911** (photo CDLI P266104):

This fragment from Nippur (courtesy of H. Stadhouders) perhaps dates to the Kassite period.<sup>14</sup> The obverse preserves eight fragmentary lines with prescriptions; the reverse appears to contain remnants of an Akkadian incantation (rev. 11': TU<sub>6</sub> ÉN) invoking the healing goddess Gula (rev. 9', 11').<sup>15</sup> The text is difficult to read; the scribe inserted small explanatory glosses above or below specific words (rev. 5', 7'). The prescriptions on the obverse seem to deal with pregnancy-related issues, i.e. protecting from miscarriage and expelling a foetus:

*Beginning of the obv. lost*

Obv. 1' [DIŠ MUNS lu (ša) ITI lu 2 ITI lu] 3 ITI ša 'ŠÀ-šá Š[UB? ...]  
Obv. 2' [.....]x la pa-tan NAG-ši-ma [ša ŠÀ-šá NU ŠUB?]

Obv. 3' [... GI]G<sup>2</sup> ÉLLAG<sup>2</sup> GU<sub>4</sub> HÁD.DU SUHÙŠ GÚR.GÚR<sup>šim</sup>LI.DUR<sup>2</sup> G[AZ? ...]  
Obv. 4' [(...)] ina [...] x KAŠ.SAG NAG-ši-ma ša [Š]À<sup>2</sup>-ša ár-jiš IGI-<sup>r</sup>mar<sup>1</sup> [...]

Obv. 5' [.....] rú<sup>1</sup>HAR.HAR rú<sup>1</sup>KUR.KUR ú<sup>1</sup>KUR<sup>1</sup>.R[A<sup>2</sup> ...]x x[.....]

Obv. 6' [.....] x-su tur-<ár> tu-x[.....]

Obv. 7' [.....-h]u<sup>2</sup> ana ŠÀ<sup>2</sup>.[TÙR-ša<sup>2</sup> .....]

Obv. 8' [.....] x [.....]

*Obv. breaks*

<sup>1</sup> “[If a woman who is one month, two months or(?)] three months (pregnant), misc[arries] her foetus [...], <sup>2</sup> [...]... you have her drink (it) on an empty stomach. Then [she will not miscarry her foetus(?)].

<sup>11</sup> For these developments and medical texts from that period, see e.g. Attinger 2008, 18–24; Abusch and Schwemer 2011; 2016; Abusch et al. 2020; Heeßel 2000, 97–109; 2009; 2010b, 10–15; Schmidtchen 2021, 2–3; Geller and Panayotov 2020, 6–8; Finkel 2018. For incantations, see Zomer 2018.

<sup>12</sup> For healing texts of the Mesopotamian tradition in the Western periphery, see e.g. Tsukimoto 1999; Marquéz Rowe 2014; Schwemer 1998; 2010c; 2013.

<sup>13</sup> Library M2 incorporated texts that can be dated between the 13th and the 11th centuries BCE (Weidner 1952–1953, *AfO* 16, 197–215; Pedersén 1985, 31–42 Library M2; Zomer 2018, 39).

<sup>14</sup> A transliteration is available via the website of the *Electronic Babylonian Library* (<https://www.ebl.lmu.de/library/CBS.10911>). CDLI and eBL give an early Old Babylonian (2000–1900 BCE) date to the fragment; however, sign forms and the frequency of logographic writings suggest a later (i.e. Middle Babylonian) date. The thickness of the fragment suggests that like BAM 241 (+), CBS 10911 must have belonged to a large tablet.

<sup>15</sup> In rev. 9', one finds the phrase <sup>d</sup>gu-la *bulliti*(DIN)-ma *qišta*(NÍG.BA) *le-q[í-i]* “Gula, heal and take (your) gift!” known from other incantations addressing Gula, see e.g. Böck 2014a, 114; Sibbing-Plantholt 2022, 80 n. 189. In rev. 11', one may restore [a-zu-gal-l]a-tu <sup>d</sup>gu-la “chief female physician Gula” (for this epithet, see e.g. Böck 2014a, 110 (K. 6057+ ii 32); Zomer 2018, 328–329 (Rm. 376 iv 22); Sibbing-Plantholt 2022, 80).

<sup>3</sup> [...] . . . you dry the kidney of an ox, you po[und] (taħaššal) root of *kukru*-plant (and) *abukkattu*-aromatic [...] , <sup>4</sup> [...] . . . you have her drink it [in . . .] (and) beer. Then she will quickly see (*immar*) her [foe]tus(?) [...].

<sup>5</sup> [ . . . . . ] *hašû*-plant (thyme), *atā'išu*-plant, *nīnû*-plant(?), . . . [ . . . . . ] <sup>6</sup> [ . . . . . ] . . . you parch(?), you [ . . . . . ] <sup>7</sup> [ . . . . . ] . . . [you . . . . . ] into [her] wo[mb(?)] . . . ].

<sup>8'</sup> *traces*

## Notes

The prescription in lines 1'-2' is restored after BM 42313+ rev. 9-11 // (text A.2.2 lines 50-52). The expression “she will quickly see her [foe]tus(?)” is reminiscent of similar expressions in first millennium BCE women’s healthcare texts. The phrase *arhiš ulla* “she will deliver quickly” is attested in texts to ease a difficult delivery; on the other hand, one finds the verb *amāru* “to see, experience” with terms referring to the menses, in prescriptions to induce menstrual bleeding, when it is delayed (*sagūša/maruštāša/damāša immar* “she will see her menses / ‘trouble’ / blood” (see e.g. BM 61975 line 7' (text C.2.4); BM 38624+ line 54'', 63'' (text A.2.1), BM 47578 line 1 (text C.2.2); SpTU 1, 59: 12' (text C.2.1) and *passim* Chapter C.2.

- **Iraq 31, pl. V–VI (Lambert 1969):**

This Middle Assyrian text (re-edited as text II.1.4) may likewise have been part of the so-called library of Tiglath-pile-ser I at Assur (as suggested by Fales 1989, 195). The text, which may be described as an excerpt compiled from at least two different sources, begins with prescriptions for women after delivery suffering from symptoms of intestinal blockage and retention of the lochia (postpartum blood/fluids). The remedies are followed by two Akkadian birth incantations used to speed up difficult labour. The second of these incantations is a version of the incantation “A Cow of Sîn” known from the so-called Neo-Assyrian Birth Compendium (BAM 248 and parallels (text D.1.1) as well as from two other Middle Babylonian fragments that were found at Ugarit and Hattuša (see below, RS 25.436 and KUB 4, 13).
- **Rm. 376 (AS 16, 287–288):**

This fragment of a Middle Assyrian two-column tablet (ca. 1100 BCE) was excavated in the area of the Kidmuru temple at Nimrud (Kalhu) dedicated to Ištar of Kidmuru. The preserved text is a collection of incantations for different purposes, e.g. against Lamaštu and *maškadu*-disease (Zomer 2018, 270–272, 326–330, 341–342). The last section on the obverse (obv. ii 19–36) contains a close variant of the birth incantation “Cow of Sîn” (see *infra* text D.1.1).<sup>16</sup>
- **KUB 4, 13 (CTH 810):**

This is the first of two medical fragments found at the Hittite capital Hattuša containing Akkadian material from the Mesopotamian tradition concerned with women’s healthcare. Written in a ‘non-Hittite’ script, KUB 4, 13 preserves remnants of two Akkadian birth incantations, the first of which parallels a couple of lines of the famous incantation “Cow of Sîn”. The second composition is closely related to another spell in the Neo-Assyrian Birth Compendium (BAM 248 obv. i 36–50 //) focusing on the cow in travail beloved by the moon god, which also has precursors in Old Babylonian birth incantations (see text D.1.1; Veldhuis 1991, 12–13; Schwemer 2013, 156; Zomer 2013; 2018, 382–383).
- **KUB 37, 189 (CTH 537.I.14):**

The second fragment from Hattuša connected to the corpus of women’s healthcare preserves twenty lines of diagnostic omens that form a close parallel to a section of the standard recension of *Diagnostic Handbook* Tablet 36, attesting to a Middle Babylonian precursor of these omens. Although KUB 37, 189 reflects an earlier and shorter version, the omens on the fragment closely match several consecutive diagnostic entries in the first millennium BCE sources of Tablet 36. The fragment presents the oldest known example of a diagnostic text concerned with women (see Wilhelm 1994, 69–72 and *infra* text I.1.1).<sup>17</sup>
- **RS 25.436 (Arnaud 2007, AuOr Suppl. 23, pl. 11 (no. 20)):**

The tiny fragment from Ugarit, found in the so-called “House of the Lamaštu tablets”, preserves part of a Middle Babylonian precursor of the birth incantation “A Cow of Sîn” (see Marquéz Rowe 2014, SANER 4, 77–78; Zomer 2018, 342–343; *infra* text D.1.1).

<sup>16</sup> For discussion, see also Arbøll 2018, 270–272; 2023, 273.

<sup>17</sup> Several other diagnostic texts bearing close parallels to entries from the later *Diagnostic Handbook* were discovered at Hattuša (Wilhelm 1994, 104–106).

## — RS 17.081:

This poorly preserved fragment from Ugarit contains several lines of prescriptions for a female patient. The text, which may have been a student's copy, was found in a residential building designated as the "House of the Scholar".<sup>18</sup> The fragment preserves fourteen damaged lines of text that display elements resembling passages in first millennium BCE prescriptions and ritual procedures to protect women from haemorrhage during pregnancy and miscarriage. Lines 1'-6' contain instructions for making amulet necklaces with stones and knots that are attached to different parts of the woman's body, similar to instructions found in texts such as STT 241: 1-8 (text C.1.1), AO 6473: 1-7 (C.3.9), BAM 237(+) (text C.1.4) and *passim* in Chapters C.1, C.3 and F). Lines 7'-13' contain instructions for a ritual procedure (including a short recitation by the patient) that mention a holy water vessel (*agubbū*) and a door. These lines are reminiscent of a ritual procedure to stop bleeding during pregnancy in BAM 237 obv. i 9'-16', in which a door in the patient's house forms the locus of the ritual actions (see text C.1.4). The last preserved line 14' contained a recipe for a potion.

Apart from the Middle Babylonian and Middle Assyrian fragments with precursors of first millennium BCE incantations and treatments for women, another hint to the Late Bronze Age as the crucial formative period of the first millennium BCE texts on women's health is encountered in an incantation within the Neo-Assyrian Birth Compendium BAM 248 rev. iii 3-5 // (text D.1.1, on which see also section 2.3). Thus, the legitimizing formula at the end of a lengthy Akkadian incantation (D.1.1 lines 128-130) appears to mention the famous scholar and exorcist Bullussa-rabi, who may have lived in the Kassite period and is known as the author of a hymn to the healing goddess Gula (Lambert 1967, 129; the end of the composition mentions his name) and of three other (unidentified) compositions.<sup>19</sup> The passage in question reads:<sup>20</sup>

<sup>128</sup> [ÉN] šá <sup>d</sup>asal-lú-<sup>hi</sup> ni-<sup>šir</sup>-tu šá eri-[du<sub>10</sub> <sup>ki</sup>] <sup>129</sup> [an-nu k]i-nu šá <sup>d</sup>é-a i-di-tu<sub>4</sub> ÉN šá <sup>d</sup>ma-mi i-ri-šú ana <sup>(m)</sup>bu-lug-sa<sup>2</sup>-GA[L]<sup>?</sup> <sup>130</sup> [<sup>d</sup>40-LU]GAL id-di-nu ana šu-te-<sup>šur</sup> ŠA.TUR

<sup>128</sup> (It is) the incantation of the god Asalluhi, a secret of Eridu,

<sup>129</sup> the reliable approval of the god Ea, the renowned incantation which (the birth goddess) Mami requested, (and which)

<sup>130</sup> (the god) Ea-šarru gave <sup>129</sup> to (the exorcist) Bullussa-ra[bi(?)], <sup>130</sup> to let the womb give birth easily."

The appearance of a famous scholar and exorcist from Babylon (given the name is read correctly) in a highly poetic birth incantation of the Neo-Assyrian Birth Compendium is remarkable. The legitimizing formulas at the end of incantations usually attribute spells exclusively to deities. The formula in BAM 248 rev. iii 3-5 // (= lines 128-130) may be seen as presenting the ideological model of scribal succession as discussed by Lenzi (2008a, 67-128; 2008b; 2015, 172, 178-180), in which knowledge of the arts of healing, magic and divination are said to have been transmitted in an unbroken chain from the gods (especially from Enki-Ea) to the *apkallu*-sages from before the flood and finally to the *ummânu*-scholars. In our case, the text appears to say that Bullussa-rabi received the spell from the gods Ea, Asalluhi and Mami for use in healing. If the reading Bullussa-rabi is correct, the occurrence of his name could be regarded as a hint to a Middle Babylonian origin of the present incantation or possibly even as a hidden hint to the authorship of the composition. However, the suggestion remains tentative for the time being.

18 Nougayrol 1968, *Ugaritica* V, 29 No. 15, 375, 629-630 fig. 18; Clemens 2001, 695-705; Marquéz Rowe 2014, SANER 4, 78-80; Del Olmo Lete 2014, SANER 4, pl. XI (photo).

19 This information is found in a Neo-Assyrian catalogue of texts and authors, where he is designated as an exorcist (<sup>hi</sup>MAŠ.MAŠ) and a scholar (*ummânu*) of Babylon (Lambert 1962, *JCS* 16, 62, 66-67; Lambert 1967, 107-109). Z. Földi (in Jiménez et al. 2019, *KASKAL* 16, 81-83) presents several attestations of the personal name Bullussa-rabi in documents from the Middle Babylonian (Kassite) period, which lend further support to the suggestion that the exorcist/*ummânu* Bullussa-rabi may have lived in the same period. Because in the administrative documents (e.g. ration lists), the name bearers are always female, Földi proposes that the author of the Gula hymn may in fact have been a woman – an interesting question which is left open in the present discussion.

20 The reading <sup>(m)</sup>bu-lug-sa<sup>2</sup>-GA[L]<sup>?</sup> in line 129 was first suggested to me by I.L. Finkel (personal communication).

### 2.3 The First Millennium BCE

Texts dating to the first millennium BCE form the lion's share of the preserved sources on women's health and the focus of the present volume. Mesopotamian medical texts from this era reflect a number complex and significant developments that are visible in other areas of scholarly texts but that can also be grasped to some degree in the sources on women's healthcare. One such development is the formation of larger serialized compendia (or text series) on diagnosis and therapy, including several compendia of incantations and medical-therapeutic material, which can be grasped through the colophons of text manuscripts as well as through catalogues that list the contents of the serialized compendia in question (see Steinert 2018 for an overview). Several concerted edition projects with the aim to assemble medical materials into handbooks or longer compendia were undertaken during this era at different places. The most important work happened under the aegis of the Neo-Assyrian king Ashurbanipal (668–631 BCE) for his royal library at Nineveh, but we also have attestations for similar serialized compendia from Late Babylonian times (Panayotov 2018).

As is known from a series catalogue and other sources, diagnostic texts were redacted into a handbook known under the title SA.GIG (*Sakikkû*), here referred to as the *Diagnostic Handbook*. The compiling and editing of SA.GIG and other canonical texts were attributed by the ancients to the scholar Esagil-ki-n-apli who (according to the scholarly tradition) lived and worked under the reign of the Babylonian king Adad-apla-iddina in the 11th century BCE.<sup>21</sup> The *Diagnostic Handbook* SA.GIG known from first millennium BCE sources consisted of forty tablets (or chapters) that were grouped in six treatises or sections with distinct topics and an organised structure. The sixth treatise contained four tablets (chapters 36–39) concerned with women, of which only two are partially preserved in actual manuscripts. From these sources and the series catalogue we know that these tablets dealt with predictions and birth prognoses for pregnant women, with health problems during pregnancy, delivery and in the postpartum period, as well as with diseases and health problems manifesting in female patients that are not "gynaecological" *per se*.

The medical-therapeutic sources from Nineveh and from other sites in Assyria and Babylonia (most of which are from the first millennium BCE) were collected and reconstructed over several decades by F. Köcher (published as the first six volumes of BAM between 1963 and 1980). Parts of this material have been edited and studied recently (e.g. Abusch and Schwemer 2011; 2016; Abusch et al. 2020; Geller 2005a; Geller and Panayotov 2020; Johnson and Simkó 2024; Maul 2019). The present volume presents all women's healthcare texts known from previous publications as well as numerous hitherto unpublished texts, many of which come from first millennium BCE Babylonia. The material is divided into diagnostic texts and therapeutic texts, including commentaries on the former materials.

A glimpse on the therapeutic women's healthcare texts in the Neo-Assyrian period (9<sup>th</sup>–7<sup>th</sup> cent. BCE) can be grasped from two scholarly catalogues, the so-called Exorcist's Manual and the Assur Medical Catalogue.<sup>22</sup> The Exorcist's Manual lists the titles of series or text genres pertaining to the discipline of *āšipūtu* "the art of the conjurer, ritual healer" – titles that are also used as rubrics to classify certain groups of incantations and rituals pertaining to them. The first part of the catalogue lists components of *āšipūtu* in a narrower sense, such as temple and healing rituals, diagnostic and physiognomic omens (Frahm 2018, 42–43). It includes as relevant genre titles <sup>munus</sup>PEŠ<sub>4</sub>.KÉŠ.DA "(spells/rituals) to bind a pregnant woman", <sup>munus</sup>LA.RA.AH "(spells/rituals for) a woman in difficult labour", flanked by related genres of ŠÀ.ZI.GA "(spells/rituals for) arousing (sexual) desire", <sup>d</sup>KAMAD.ME "(spells/rituals against) Lamaštu" (a demoness predominantly attacking pregnant women and infants) and LÚ.TUR.HUN.GÁ "(spells/ritual) to calm a (crying) infant" (Geller 2018a, 298 KAR 44: 14–15 and dupl.; Heeßel 2023, 294). Spells bearing the rubric <sup>munus</sup>LA.RA.AH.(A.KAM) are found in first millennium BCE texts dealing with (difficult) delivery. The genre title <sup>munus</sup>PEŠ<sub>4</sub>.KÉŠ.DA, referring to spells to protect pregnant women from haemorrhage and miscarriage, is attested only in older texts from the second millennium BCE,<sup>23</sup> although it also occurs in the Assur Medical Catalogue (see below). However, several texts edited in this volume presumably contain incantations that have a relation to the genre designated by the ancient healers with that title (see Chapters C.1 and C.3). The second part of the Exorcist's Manual comprises additional fields of knowledge to be mastered by the *āšipu*, especially medical-therapeutic treatises, among which the catalogue lists *šipir sinništi* (KIN MUNUS) "treatment(s) for women", which may be a

<sup>21</sup> Finkel 1988; Heeßel 2010e, 139–143, 154–171; Rutz 2011, 294–296, 299; Schmidtchen 2018a; 2018b; 2021.

<sup>22</sup> For the Assur Medical Catalogue, see Steinert et al. 2018. For the Exorcist's Manual, see Bácskay and Simkó 2012; Frahm 2011, 325–332; 2018; Geller 2000a; 2018; Jean 2006, 62–82; Heeßel 2023.

<sup>23</sup> For OB Sumerian spells with the rubric MUNUS.KÉŠ.DA.KAM "to bind a woman" and similar rubrics, see Finkel 1980, 38–39, 42–43 text C (CBS 1509 i 20, iii 25); Steinert 2018, 183; Steinert et al. 2018, 272.

reference to medical remedies for female conditions that were incorporated in the treatises PREGNANCY and BIRTH of the Assur Medical Catalogue (Geller 2018a, 301: 35; Heeßel 2023, 295; Steinert 2018, 185, 187).

The Assur Medical Catalogue (AMC) is a key document and piece of evidence for the organisation of medical-therapeutic materials concerned with women's health matters in Neo-Assyrian times. The texts listed in the AMC belong to a large medical compendium that is closely associated with the large-scale edition project in Nineveh in Ashurbanipal's reign (668–631 BCE), witnessed in numerous tablets excavated there that bear colophons with catchlines and titles following those outlined in the AMC and that are now referred to by Assyriologists as the *Nineveh Medical Compendium* (also *Nineveh Medical Encyclopedia*). The therapeutic compendium outlined in AMC consists of two parts organised in thematic sections or treatises. The catalogue lists two treatises toward the end of Part II of AMC comprising eleven tablets that are concerned with female health matters. These two treatises have been given the titles PREGNANCY / OFFSPRING and BIRTH for easy reference (Steinert et al. 2018, 217–218 lines 109–120). The lines in question are worth repeating here:

#### XXI PREGNANCY/OFFSPRING

109) [( . . . )] DIŠ NA a-na <sup>4</sup>nīl-n̄-kar-*ra-ak* <sup>1</sup>pa<sup>1</sup>-*qid* : DIŠ NA mi-*ih*-*ra* im-*hur*-*ma* DUMU.MEŠ-šú ana ŠU-šú È.MEŠ

[( . . . )] If a man is entrusted to the goddess [Ni]nkarrak. If a man is confronted with (a *carrier of*) misfortune with the consequence that his sons are lost for him (i.e. have died).

110) [ana <sup>munus</sup>PEŠ<sub>4</sub> UŠ<sub>11</sub>.ZU NU T]E<sup>1</sup>-*ši*-*ma* ana šà ŠÀ-šà NU<sup>1</sup> (DIŠ) <sup>1</sup>ŠUB<sup>1</sup>-*e*

[For witchcraft not to] approach [a pregnant woman] and to prevent her from having a miscarriage.

111) <sup>1</sup>NÍGIN<sup>1</sup> [3 DUB.MEŠ N]A a-na <sup>4</sup>nīl-n̄-kar-<sup>1</sup>*ra-ak*<sup>1</sup> <sup>1</sup>pa<sup>1</sup>-*qid*<sup>1</sup>

**Total of [three tablets (of the section)]** “If a] man is entrusted to the goddess Ninkarrak.”

112) ša<sup>2</sup> x x x[. . . EN DIŠ <sup>munus</sup>PEŠ<sub>4</sub>] <sup>1</sup>A<sup>1</sup>.MEŠ-šá DU-ku : DIŠ <sup>munus</sup>PEŠ<sub>4</sub> MÚD.MEŠ-šá DU-ku

. . . [ . . . , including (prescriptions) for the case that a pregnant woman's] (amniotic) fluid flows, for the case that a pregnant woman's blood flows,

113) DIŠ <sup>munus</sup>PEŠ<sub>4</sub> i-<sup>1</sup>*sa-ap*<sup>1</sup>-[*pid*? . . .]x : DIŠ <sup>munus</sup>PEŠ<sub>4</sub> *kun-nu-<sup>1</sup>kāt*<sup>1</sup> <sup>1</sup>: DIŠ <sup>munus</sup>PEŠ<sub>4</sub> *kul-lu-mat*

for the case that a pregnant woman [mour]ns [ . . . ], for the case that a pregnant woman is sealed up (i.e. cannot deliver), for the case that a pregnant woman is *bewitched* (lit. was shown something),

114) DIŠ MUNUS Ù.TU-*ma* *kul*<sup>2</sup>-*l*[*u-mat*? . . .](: . . . (ana) *h*]*ja-riš-te* 'ša<sup>1</sup> <sup>1</sup>*kul-lu-ma-tú*<sup>1</sup> <sup>1</sup>BÚR<sup>1</sup> : *u* <sup>munus</sup>PEŠ<sub>4</sub>.K[ÉŠ.DA.KÁM (x x)]

for the case that a woman gives birth and is *bewitched*, [ . . . (treatments)] for releasing a woman in confinement who has been *bewitched* and (spells) to bind a pregnant woman ( . . . ).

#### XXII BIRTH

115) DIŠ <sup>munus</sup>PEŠ<sub>4</sub> *ina a-la-d*[*i-šá šu-up-šu-qat a-n*]a *šu-up-šu-h*[*i*]

If a pregnant woman [is suffering severely during her] delivery, [in] order to calm (her) down.

116) ÉN *ina A na-<sup>1</sup>a<sup>1</sup>-[ki-im ib-b]a-ni* GÌR<sup>1</sup>.PAD.D[U]

Incantation: “From the fluids of intercourse the bone was created.”

117) DIŠ MUNUS *ina* Ù.TU *uš-[tap-šiq* : DIŠ MUNUS Ù.TJU-<sup>1</sup>*ma*<sup>1</sup> *ni-ip-šá* *ina kir-ri-š*[á x x (x)]

If a woman suffers [severely during delivery]. If a woman delivers] and then a smell [ . . . ] in her throat.

118) DIŠ <sup>munus</sup>Ù.TU Ù.T[U-*ma* . . . : DIŠ MUNUS<sup>2</sup> *šá-gu-šá*? *p*[*e-lu-ú*?]

If a fertile woman delivers [and . . . . If a] woman's *menstrual discharges* [are bright r]ed?

119) DIŠ MUNUS GIN<sub>7</sub> *ri-hu-ut* GÌS T[A<sup>2</sup> GAL<sub>4</sub>.LA-šú DU-ku<sup>2</sup>: . . . Š]À MUN[US . . . ]

If a semen-like discharge [flows] from a woman's [vagina]. [ . . . the] belly of a wo[man . . . ].

120) NÍGIN 8 DUB.MEŠ *ša* <sup>munus</sup>[<sup>5</sup>PEŠ<sub>4</sub> *u* <sup>munus</sup>Ù.TU<sup>2</sup>]

**Total of eight tablets (of the section)** concerning [pregnant?] women [and women in childbirth?].

The incipits and additional keywords listed in these lines of the AMC reveal several focal topics and texts groups that are represented by women's healthcare texts published in this volume (for detailed discussion, see Steinert et al. 2018, 269–276 and *infra*). The treatise PREGNANCY / OFFSPRING with the title “If a man is entrusted to the goddess Ninkarrak” focuses on rituals and treatments for families affected by the death of children, either born or unborn (due to the woman's repeated miscarriages). The tablet incipits in AMC 109–110 and 113–114 allude to some of the possible causes of the infant death and miscarriage mentioned in the texts pertaining to this treatise: the wrath of the goddess Ninkarrak, who is a healing and oath deity associated with the goddess Gula, and witchcraft.<sup>24</sup> Notably, the title of the treatise, the titles of the listed chapters as well as several of the topics enumerated in AMC 109–114 are attested in the textual sources on women's health from the first millennium BCE (although not necessarily as tablet incipits). The majority of these sources stem from Late Babylonian manuscripts as well as from several Neo-Assyrian manuscripts from Assur, Sultantepe and Nineveh.

Most of the text sources pertaining or related to PREGNANCY / OFFSPRING are assembled in Chapters C.1 and C.3 focusing on bleeding and protection from miscarriage, but some related materials (e.g. treatments against loss of amniotic fluid) are also found in texts edited in Chapter A. Closely related to the theme of protection from bleeding (during pregnancy) and miscarriage are the texts on amulet necklaces edited in Chapter F, which the ancient scholars collected in a separate compendium on amulets entitled *kunuk hälti* (see previously Schuster-Brandis 2008).

The treatise BIRTH outlined in AMC 115–120, which comprised eight tablets (chapters), seems to have contained materials dealing with delivery, including birth incantations and treatments to ease a difficult delivery (chapters 1–3 in AMC 115–117), texts concerned with postpartum problems (chapters 4–5, AMC 117–118) and topics that could be described as gynaecological and included treatments dealing with the menstrual flow (*sagū*) and with other morbid genital discharges (chapters 6–8, AMC 118–119). In this light, the summary rubric in AMC 120 may have referred to women in childbirth, but perhaps also to women's diseases.

The sources linked to BIRTH chapters 1–3 referenced in AMC 115–117 are assembled in Chapter D.1 focussing on treatments for delivery. Several sources in Neo-Assyrian and Neo-Babylonian script from Nineveh, Assur and Babylonia focusing specifically on delivery are preserved including a well-known collection of materials called here the Neo-Assyrian Birth Compendium (text D.1.1), a text that was also the subject of scholarly commentaries (edited in Chapter G). None of the preserved sources can definitely be identified as being witnesses for the recension of texts described in AMC, although it is clear from identical phrases matching two of the incipits that the preserved texts have an intimate connection to the materials referenced in AMC 115–117. That the preserved texts and fragments represent only a fraction of the complete transmitted textual lore, is seen in the title of BIRTH chapter 2, which is the title of an Akkadian birth incantation that is only known so far from Old Babylonian tablets (see text II.1.2) but must still have been known and transmitted in the first millennium BCE.

The incipit of BIRTH chapter 4 in AMC 117 is currently attested only in one Late Babylonian tablet fragment (text A.2.7), but not as an incipit. However, treatments for postpartum conditions are preserved in several first millennium BCE text sources edited in this volume (e.g. texts D.2.1, A.1.2, A.1.4, A.2.1, A.2.2). The treatments deal with different serious symptoms and problems such as fever, infection, retention of the afterbirth, retention of the lochia, and pain. The textual material referenced in the incipit of BIRTH chapter 6 (AMC 118) may have been related to texts edited in chapter C.2 that deal with regulating the menses (see further below), while treatments against abnormal genital discharges similar to the ones referred to in the incipit of BIRTH chapter 7 (AMC 119) are encountered in several texts edited here (e.g. texts C.1.1–C.1.2, C.1.4).

Multiple other topics and female health problems than those referenced in AMC 109–120 are encountered in the texts from the first millennium BCE (for which see further below). At this point it is useful to give a brief overview of the geographical and temporal distribution of the sources, on the formats of the texts, on their proveniences and archival contexts as well as some information on scribes and scholars gleaned from colophons or occasional rubrics.

Table 1 presents an overview of the number and distribution of the first millennium BCE sources on women's healthcare. The count excludes texts that integrate prescriptions for women but whose focus is not on gender-specific conditions, e.g. the texts on hair loss included in the Appendix (Chapter H) that belong to a different compendial context altogether. Included however are texts on amulet necklaces for women (edited in Chapter F). Although these procedures were inte-

<sup>24</sup> The appearance of Ninkarrak in this context also alludes to the attribution of infant death to the “Ban” (NAM.ÉRIM; *māmitu*) encountered in some of the texts in question.

grated into the compendium *kunuk haltı*, they also circulated in manuscripts that only contain a group of amulets specifically designed for pregnant women and that have close connections to women's healthcare texts on matters of pregnancy and bleeding edited in Chapters C.1 and C.3 of the book.

**Table 1:** Number of first millennium BCE women's healthcare texts according to text groups and provenience (52 of them have been previously edited).

Text group	Assyria	Babylonia	Total
<b>Diagnostic Texts</b> (SA.GIG 36–39)	2	7	<b>9</b>
<b>Therapeutic Texts</b> (including amulet texts)	55	44	<b>99</b>
<b>Commentaries</b>	1	4	<b>5</b>

The distribution reveals that for the diagnostic texts and commentaries, few manuscripts are preserved from the Neo-Assyrian period, and that the majority of the sources comes from Babylonia (and from the Late Babylonian period). The number of therapeutic texts is higher for Assyrian findspots. However, of the 55 therapeutic texts from Assyria, 17 found in Ashurbanipal's library at Nineveh are written in a Babylonian ductus and were either copied by Babylonian scribes or were brought from Babylonia to Nineveh in connection with Ashurbanipal's collecting efforts.

Table 2 gives an overview of the number of sources according to proveniences within Assyria and Babylonia (note that among the tablets counted for Babylon are a couple of texts of uncertain provenience, which may stem from different locations in Babylonia).

**Table 2:** The proveniences of the first millennium BCE women's healthcare texts.

<b>Assyria</b>	
Assur	24
Nimrud	2
Nineveh	33
Sultantepe	4

  

<b>Babylonia</b>	
Babylon	18(?)
Borsippa	2
Dilbat	1
Nippur	2
Sippar	12
Ur	2
Uruk	14

As with cuneiform medical texts in general, the women's healthcare texts edited here display different formats that can be linked with specific contexts in which such texts were used, and with different purposes for which they were written down or copied.<sup>25</sup> The various manuscripts can be loosely classified as a) *handbooks* or *collections* (sometimes part of larger compendia) inscribed on large single- or multi-column tablets which served as reference works for healing specialists and other scholars, drawn on for teaching and professional practice; b) shorter *extracts* (of selected prescriptions, incantations or ritual procedures) linked to concrete events of healing and practical application on a specific patient; c) small *students' or apprentices' tablets* (linked to contexts of knowledge transfer, i.e. teaching and learning of the healing

<sup>25</sup> On tablet formats, see in general Schnitzlein 2023.

crafts and related scholarly knowledge), usually containing only a few prescriptions.<sup>26</sup> The medical commentaries can also be placed in a teaching context, as their colophons indicate (see e.g. Frahm 2011; Clancier 2014; Gabbay 2016; Wee 2019a; 2019b). An example is encountered in text G.1, a Late Babylonian commentary from Nippur on a compendium of texts for a woman in (difficult) labour (referred to here as the Neo-Assyrian Birth Compendium), which is described in its colophon as “oral explanations, and (materials for) a ‘questioning’, following the sayings of a (master)-scholar” (*šūt pī u maš altu ša pī ummāni*).

We have only few examples of women's healthcare texts with colophons identifying the text as part of a larger compendium. SpTU 1, No. 59 (text C.2.1), the fragment of a tablet copied by the exorcist Anu-ikṣur (belonging to the Šangū-Ni-nurta family) with remedies to regulate the menses, is designated in the colophon as the 41<sup>st</sup> tablet of the therapeutic series *šumma amēlu muhāšu umma ukāl* “if a man's skull contains heat”, i.e. a Late Babylonian recension of the therapeutic series (or compendium) with the same title known from the AMC and the Nineveh texts (see e.g., Heeßel 2010c, *TUAT NF* 5, 31–35; Panayotov 2018; Steinert 2018; Steinert et al. 2018). BM 42327+ and SpTU 3, No. 84 (texts C.3.3 and C.3.4) present textual evidence for the section PREGNANCY/OFFSPRING listed in the AMC 109–114 (see above), with BM 42327+ featuring the matching incipit of Tablet 3 (*ana erīti kišpī lā tehē-ma ša libbiša lā nadē* “so that witchcraft not come near a pregnant woman and for her not to have a miscarriage”) as well as a corresponding catchline and series title in the colophon. Other examples of tablets or fragments with women's healthcare texts that may have belonged to a serialized compendium are BM 61975 (text C.2.4) and BM 47801 (text E.2.3). Several single- or two-column tablets from Nineveh, Assur and Babylonian sites (e.g. Uruk) that either do not preserve a colophon or do not give a catchline matching the recension of therapeutic materials listed in AMC but deal with a specific topic (e.g. bleeding, delivery) may also represent compilations on women's health that belonged to a longer compendium (e.g. BAM 237(+), BAM 244, BAM 248 // K. 2413(+), K. 11647 (AMT 66/3), BM 51246+, SpTU 4, No. 153, SpTU 5, 253).

It is noteworthy that when one looks at the preserved first millennium BCE sources, it is only in exceptional cases that we find two duplicating manuscripts of the same text. One example is the Neo-Assyrian Birth Compendium (text D.1.1), for which we have two duplicating manuscripts, one from Assur (BAM 248) and one from Nineveh (K. 2413+); another example is found in two duplicating copies of a Šamaš prayer from Nineveh recited in the context of childbirth (K. 897 and K. 3025, text D.1.8). It is more common for a given manuscript that it shares one or several procedures or a text section with one or more parallel sources. Thus, we see relatively fluid and flexible textual traditions that are characterised by diffuse long-term processes of transmission, local differences and influences from diverse groups, “schools” or members of healing professionals (see further below). Within the materials on women's healthcare written down and copied in the first millennium BCE one finds older components that stem from the second millennium as well as newer materials added to these older components over time. Among the Late Babylonian texts, there are also sources with prescriptions that contain many Aramaic loanwords or other linguistic features pointing to links with oral traditions and the contemporary healing practices of the day. The impact of astro-medicine or astro-magic can be discerned rarely, among Late Babylonian women's healthcare texts (as in BM 47491, text A.2.6).

In the corpus edited here, texts are only rarely designed as excerpts (*nishu*) belonging to a longer series. BM 51246+ (text A.2.7), a fragment of a single-column tablet with a selection of treatments for women, ends with a damaged one-line colophon designating the tablet as a “34th excerpt (*nishu*) of remedies (*bultū*)” (line 41).<sup>27</sup> Another Late Babylonian text (BM 47578, text C.2.2), a small, almost oval tablet with prescriptions to induce the flow of the menses showing signs of re-use, is designated as a “40th extract” (*nishu*) that was “quickly excerpted” (*zamar nashi*), suggesting that the copied text stemmed from a larger compilation, although the tablet may have been an exercise of some kind. Another manuscript in the corpus that was “excerpted” (*nasāhu*) is UET 7, No. 123 (text B.2.2), a text with tests and treatments for fertility. In some cases, texts designated as “excerpted” may have served for treating a specific patient. A few tablets containing only one ritual procedure or incantation for a female patient may likewise be seen as excerpts copied by a practitioner to prepare a remedy or a ritual performance on a specific occasion, e.g. AO 4425A+B (text B.2.6), STT 241 (text C.3.1), or K. 11956 + 14200 (text D.1.2). One Late Babylonian tablet containing a birth incantation/ritual mentions the treated patient by name (BM 54846, text D.1.10).

<sup>26</sup> For studies of medical texts as documents written by students or apprentice healers as well as questions of curricula, see e.g. Finkel 2000; Maul 2010; Clancier 2014; Arbøll 2021.

<sup>27</sup> For similar designations in colophons of Late Babylonian medical texts or commentaries referring to “remedies (*bultū*) from the house of Dābībi”, see Panayotov 2018, 115; SpTU 1, No. 59: 15' (text C.2.1).

Students' or school tablets with remedies for women are relatively frequent among the first millennium BCE sources. As previously discussed by Finkel (2000, 171–173), among the Late Babylonian texts from Sippar (booked in the 81-7-1 collection of Babylonian texts in the British Museum) that can be linked with the family archive of Bēl-rēmanni (a wealthy scribe associated with the Ebabbar temple) are examples of students' tablets with prescriptions for women. One of these tablets duplicates passages from a longer collection of "gynaecological" prescriptions likewise attributed to the same collection, which presumably served as the teaching source, attesting to activities of medical training (see text A.2.2, BM 42313+ and BM 42333+). Other such school tablets from the Bēl-rēmanni archive with prescriptions for women are BM 42450+ (text B.2.3), BM 42507, F 238 (+) BM 43268, BM 43229 (text E.2.1) and BM 43110+ (text E.2.2). A similar Late Babylonian tablet containing only one or a few recipes is BM 59710 (text B.2.5), but examples can also be encountered among the Neo-Assyrian medical texts for women (e.g. BAM 250 from Assur, text B.1.4). If the features of the tablet or script do not reveal a beginner's work, it cannot always be decided whether such manuscripts are school exercises or extracts selected by a practitioner for preparing a remedy on a specific occasion. In one instance, an apprentice scribe copied a text that he dedicated to the temple of Nabû, as a pious act to promote his career (BM 92694, a Late Babylonian copy of Tablet 36 of the *Diagnostic Handbook*).

## 2.4 Archives and Libraries, Scribes and Colophons

Several of the texts on women's health edited in this volume can be assigned to specific archaeological contexts and archives. The texts from Nineveh are attributed to "Ashurbanipal's library" located on mound Kuyunjik and thus date to the 7th century BCE.<sup>28</sup> The majority of the Nineveh sources is fragmentary, but some of the texts (belonging to large two-column tablets) very likely have close connections to the treatises on women outlined in AMC. The preserved material (which includes several tablets and fragments written in a Neo-Babylonian ductus, which were either brought to Nineveh from Babylonia or copied in Nineveh by Babylonian scribes) shows that the royal tablet collection included a range of therapeutic texts as well as a copy of the sixth section of the *Diagnostic Handbook* dealing with women and infants (Minen 2020).<sup>29</sup> The surviving fragments cover topics such as bleeding, miscarriage, difficult delivery, postpartum conditions, amulets for women and often have parallels in texts from Assur, Sultantepe and Babylonia. Notably, the Neo-Assyrian Birth Compendium, a collection of incantations and remedies to ease difficult delivery, is attested in at least two duplicating copies from Nineveh and Assur (K. 2413+ and BAM 248; text D.1.1). Only two of the Nineveh texts on women's health preserve a colophon marking the tablets as property of Ashurbanipal's palace: K. 11956 + 14200 (text D.1.3) and Sm. 157 + 1134 (text D.1.6), both of which deal with difficult delivery. One text (Rm. 376, a Middle Assyrian tablet with incantations) that was originally catalogued among tablets from Nineveh has been identified as actually stemming from the Kidmuru temple at Nimrud (Kalhu); a second text from Nimrud (CTN 4, No. 105; text C.3.6) was found at the temple of Nabû.<sup>30</sup>

The second most important collection of Neo-Assyrian women's healthcare texts comes from Assur. Almost all of the women's healthcare texts found at Assur are known to originate from library N4 of the so-called "House of the incantation priest" belonging to the family of Kişir-Aššur, whose male members served as exorcists (*mašmaššu*) of the Aššur temple over four generations during the 8<sup>th</sup>–7<sup>th</sup> century BCE (BAM 235–240, BAM 243–246, BAM 248–251; BAM 346, BAM 363; KAR 223, KAR 247; KAL 2, No. 41, KAL 7, No. 16; LKA 9).<sup>31</sup> The texts deal with a broad range of topics (e.g. fertility, haemorrhage, pregnancy, delivery, abortion, postpartum issues, amulets) and several of them are related to the treatises outlined in the

<sup>28</sup> Many of the scholarly tablets were excavated in the South-West Palace, but it is known that some were stored in other archives/libraries on mound Kuyunjik (e.g. in the North Palace, the Nabû temple or the Ištar temple). For discussion of the different archives and Ashurbanipal's tablet collection, see e.g. Reade 1986; 1998–2001, 421–424; Lieberman 1990; Pedersen 1998, 161–165; Frame and George 2005; Schnitzlein 2023, 257–358. For texts in Babylonian script from Kuyunjik, see Fincke 2003–2004; 2017a; 2017b.

<sup>29</sup> Two small fragments of *Diagnostic Handbook* Tablet 36 (K. 7071 and K. 17663) and a fragment of a *mukallimtu*-commentary on Tablet 37 (K. 11939) have been identified among the diagnostic materials concerned with women (see *infra* text I.1.1 and I.1.5).

<sup>30</sup> Reade 1986, 218.

<sup>31</sup> For this library and the family members' activities associated with it, see Pedersen 1986, 41–76; 1998, 135–136; Maul 2010; Arbøll 2021. Kişir-Aššur's active years were during the reign of Ashurbanipal.

AMC.<sup>32</sup> Only one of these texts preserves a colophon that includes the name of the scribe: KAR 223 (text D.3.1) was copied by Kişir-Nabû, son of Šamaš-ibni and nephew of Kişir-Aššur.

Four Neo-Assyrian tablet fragments on women's health were discovered at Sultantepe (ancient Huzirina near Harran), in a hoard of several hundred tablet fragments of medical-magical and other scholarly contents that belonged to an archive associated with a private house (the so-called House of Qurdi-Nergal): STT 241, STT 98 (+) 284, STT 278.<sup>33</sup> Only STT 241 (text C.1.1), a tablet with an incantation and amulet prescription to protect a pregnant woman from miscarriage, preserves a colophon mentioning the scribe (a certain Sîn-iddina). STT 278 is a fragment on amulet necklaces for women connected to the series *kunuk halti* (text G.1), while STT 98 (+) 284 (text A.1.1) belonged to a tablet with a collection of medical prescriptions for women (on topics such as fertility and difficult delivery).

Turning to the women's healthcare texts from first millennium BCE Babylonia, the best documented evidence for a library context comes from Uruk and Sippar during the Achaemenid and Hellenistic period. The tablet collections in the houses of the *āšipus* in Uruk (which contained texts from all branches of scholarship including magic, medicine, divination, astrology) have yielded both therapeutic texts and fragments of commentaries on tablets of the *Diagnostic Handbook* concerned with women.<sup>34</sup> Among the tablets in the library of the descendants of Šangû-Ninurta (active in the 5th–4th cent. BCE) is SpTU 3, No. 84 (text C.3.4) written by Šamaš-iddina, son of Nâdinu. Anu-ikşur, son of Šamaš-iddina, was the scribe of SpTU 1, No. 59 (text C.2.1) and SpTU 5, No. 248 (text C.3.10). Further, SpTU 1, No. 39 and 40, two fragments of commentaries on *Diagnostic Handbook* Tablet 36 and 39, were found together with other texts and commentaries preserving colophons mentioning Anu-ikşur as their scribe and can thus be identified as coming from the same archive. The second Uruk library associated with a family of exorcists can be dated to the 4th–3rd cent. BCE and belonged to the descendants of Ekur-zakir. SpTU 4, No. 153 (texts C.1.10 and D.1.11) and SpTU 5, No. 253 (text E.2.6), possibly fragments of one and the same tablet, can be attributed to this archive. The latter two fragments are collections of prescriptions for topics such as haemorrhage, difficult delivery and conditions of the uterus, which are written in a particular discursive style that makes repeated references to orally transmitted lore. From three women's healthcare texts in the Šangû-Ninurta collection, especially SpTU 3, No. 84 and SpTU 5, No. 248, two tablets with ritual ceremonies to counter repeated miscarriages and infant death, have intimate links to other Neo-Assyrian as well as Babylonian sources that can be associated with the treatise PREGNANCY/ OFFSPRING in the AMC (see above).<sup>35</sup>

An interesting Late Babylonian archive associated with scribal and medical training has been already mentioned above: the archive of Bēl-rēmanni from Sippar (Jursa 1999; Finkel 2000) dating to the Achaemenid period (ca. 500 BCE). This collection included ca. 90 medical texts, among them seven tablets with prescriptions for women (BM 42313+, BM 42333+ (text A.2.2), BM 42450+ (text B.2.3), BM 42507, F 238 (+) BM 43268, BM 43229 (text E.2.1), BM 43110+ (text E.2.2)). The teaching handbook BM 42313+ is an important collection of prescriptions for various conditions and medical issues concerning women's health and body care. Some of the prescriptions on smaller tablets have unique purposes not attested elsewhere, e.g. text E.2.1 (preserved in three copies) dealing with pain in the breasts.

Other Babylonian texts in the corpus from the British Museum's Sippar collection do not have a certain provenience. At least one fragment with prescriptions (BM 57853, text E.2.5) can be attributed to the Ebabbar temple.

A substantial number of Late Babylonian tablets and fragments on women's health are found in the Babylon collection of the British Museum; some of these texts stemming from the excavations of Hormuzd Rassam may come from other places in Babylonia (e.g. Sippar). A few of these texts preserve colophons mentioning the scribe or owner. The owner/scribe of BM 42327+ (text C.3.3), a certain Itti-Marduk-balâtu, may be identical with Itti-Marduk-balâtu, son of Nabû-ahhê-iddin and a member of the prominent Babylonian Egibi family, who was active in the latter half of the 6th century BCE; this Itti-Marduk-balâtu is known as the owner of other medical texts (Bácskay and Simkó 2021). Two texts in the Babylon group, BM 47459 (text D.3.1) and BM 47491 (text A.2.6), were written by the scholar Iprâ'ya, son of Zababa-pir'u-uşur and member

<sup>32</sup> May (2018a, 69–74) proposes the AMC, which was copied by an apprentice physician and son of a Šangû priest of Baba/Bau, may have belonged to the N4 library as well.

<sup>33</sup> See e.g. Pedersén 1998, 178–181.

<sup>34</sup> For these tablet collections, see e.g. Clancier 2009a; 2014.

<sup>35</sup> The fragment A. 3438 containing the beginning of *Diagnostic Handbook* Tablet 37 likewise stems from Uruk. According to its colophon, it was owned by the Eanna temple and written by an apprentice exorcist, Itti-Marduk-balâtu, son of Mušallim-Marduk of the Šangû-parakki family.

of the Ēṭiru family, which had ties to Borsippa and Babylon.<sup>36</sup> The latter of the two texts is quite special in its combination of recipes for love magic (*ša šububu*) with astrological allusions and treatments for women's conditions, specifically types of fever (*ummu* "heat"). The former text is a tablet with procedures to avoid a delivery in the month Nisannu that is known in five other manuscripts (from Neo-Assyrian and later times). One tablet, BM 40152 (text C.1.8), designates a section of remedies as having been copied from a wooden writing board (*lē'u*) owned by a scholar (*ummānu*) from Babylon named Nūr-Marduk. Although not preserved, such writing boards (wax tablets) are occasionally mentioned as *Vorlage* in colophons of women's healthcare texts as well as in tablet inventories.<sup>37</sup>

Furthermore, there are examples women's healthcare texts from Nippur and Ur with colophons. A remarkable tablet is N. 4001 (text B.2.1) from Nippur, which contains a procedure against infertility and pregnancy prognoses (tests). Its unusual colophon mentions a *Vorlage* owned by Sīn-multēšir, son of Gābul-Tutu, grandson/ancestor of Gula-balāssu-iqbi. Interestingly, this tablet was written by a physician "for his learning" (*ana lamādišu*). Sīn-multēšir is mentioned as the copyist of an older *Vorlage* in the colophon of another remarkable tablet of medical content, BM 78158 (Stadhouders 2018a, 169–170). It may be that the damaged colophon of UET 7, No. 123 (text B.2.2), a fragment from Ur likewise with treatments for infertility and test procedures, refers to the same Sīn-multēšir son of Gābul-Tutu, although this remains a guess. Moreover, we possess two medical commentaries on the so-called Neo-Assyrian Birth Compendium, one from Ur (UET 6/3, 897) and one from Nippur (11N-T3, see Chapter G).

### 3 The Scope of Mesopotamian Women's Healthcare in the First Millennium BCE

This section aims to give a brief overview of the contents of the therapeutic texts edited in this volume and comments on the scope of Mesopotamian women's healthcare reflected in them. In this study, I prefer to use the term women's healthcare (texts), although one may speak of "gynaecological" texts in a broader sense of the word.<sup>38</sup> This follows a critical trend that regards the application of the term "gynaecology" as a branch of specialized medicine to sources from the ancient world as problematic and too limited (Gourevitch 1996; Couto-Ferreira 2018c, 110–112). Linked to the question of a medical sub-domain concerned with female patients is the question of Mesopotamian healers' understanding of the relationship between male and female bodies, anatomies and physiologies, i.e. whether they regarded them as similar or radically different.<sup>39</sup> Thus, the texts presented here clearly show that Mesopotamian women's healthcare was a branch of healing connected to a delimited text corpus, the focus of which was clearly on specific issues related to the female physiology, on topics linked to women's reproductive processes and problems encountered in this connection: (in)fertility, menstruation, abnormal bleeding, pregnancy, birth.

If we compare incantations and prescriptions from a diachronic angle, four cardinal topics or groups are represented in both genres: fertility, pregnancy, delivery and bleeding. The purposes of the incantations are often apparent from rubrics appended to the compositions. While spells identified by rubrics as belonging to the context of childbirth and bleeding (during pregnancy or after delivery) are attested in texts from the second and first millennium,<sup>40</sup> spells to enhance fertility

<sup>36</sup> On the reading of the name, see Schwemer 2009, 58. This scholar who lived in the fifth or fourth century BCE is known from colophons of several other scholarly texts, especially commentaries and texts of magico-medical, astrological and divinatory content (Frahm 2011, 307; Jiménez 2014, 218; Ossendrijver 2019, 66–68). One text written by Iprā'ya, a commentary on *Marduk's Address to the Demons*, was housed in the Ezida temple in Borsippa.

<sup>37</sup> E.g. SpTU 3, No. 84 (text C.3.4). BM 57373 (= CT 55, 411: 3–5) from Sippar, a short inventory listing wax tablets of different content, refers to a polyptych of 13 writing boards of (prescriptions for) a woman who does not bring (her pregnancies) to term (13 *gišIG gišDA šá MUNUS NU SI.SÁ*), together with one polyptych of 11 boards of medical remedies (11 *gišIG gišDA šá bul-tu*), writing boards containing other magical procedures or rituals (anti-witchcraft ceremonies, washing of the mouth (cultic rituals), house-building rituals and further materials).

<sup>38</sup> See also Lehmhaus 2023, 75. A similar expression to the ancient Greek term *gynaikεia* which was used for texts dealing with this area of medicine, was perhaps found in the Assur Medical Catalogue (see above line 120).

<sup>39</sup> Ancient views on the issue of sexual difference give a range of diverging answers. Some views distinguish two sexes and emphasize the need to evaluate women's ailments in line with their physiology, as different from that of male bodies (e.g. the Hippocratic texts). Other views embrace a one-sex model that regarded female sexual anatomy as an introverted version of the male body and differentiated both sexes merely in their level of internal heat, although recognizing a limited set of bodily functions peculiar to women (such as conception, giving birth, and lactation). For discussion, see Lehmhaus 2023, 6–7, 31–33 with further references.

<sup>40</sup> Rubrics of birth incantations encountered already in second millennium BCE texts are KA.INIM.MA MUNUS.Ū.TU.(UD.DA.KAM) "recitation for a woman in childbirth", *šipat aruhtim* "spell for a hastened woman" (viz. a woman in labour) and KA.IMIM.MA/*šipat mul/š(t)apšqtim* "recitation/

or enable conception and spells to protect a woman from miscarriage can so far only be identified through their respective rubrics in texts from the first millennium.<sup>41</sup> In comparison, the topics of the medical prescriptions from the second and first millennium cover a much wider range of specific conditions and medical problems affecting women (see Table 3):

**Table 3:** Conditions and problems treated in Mesopotamian therapeutic texts for women.

- To promote fertility/conception (also after menopause)	- To expel a dead foetus(?)
- Lack of desire for intercourse	- To relief pain after childbirth
- Fertility tests/pregnancy prognoses	- Prolapse of the uterus
- Contraception and abortion	- Prolapse of the rectum (postpartum)
- To provoke the menstrual flow	- Puerperal sepsis/infection
- To regulate the menses	- Vaginal/uterine discharges
- To stop (abnormal) haemorrhage	- Fevers
- To prevent miscarriage	- Urological complaints
- Bleeding during pregnancy ( <i>nahšātu</i> )	- Uterine tumours(?) ("crab disease")
- Preterm/premature rupture of the membranes (flow of amniotic fluids)	- Uterine ulcers(?) ( <i>tikpū</i> )
- Dystocia (to ease/speed up difficult delivery)	- Breast pain
- Acute bleeding during/after delivery	- Skin diseases
- To expel the afterbirth/placenta	- Gastrointestinal complaints (diarrhoea, 'wind', constipation, colic, during pregnancy or postpartum)
- Retention of the lochia (postpartum blood)	- Epilepsy / seizures
	- To improve body odour

Most of the conditions listed in the table have a connection to the realm of women's reproductive life or occur as symptoms that are discussed in the context of pregnancy and childbirth (e.g. gastrointestinal problems, fever, infection). The focus of the texts was clearly on women of childbearing age or young women (*sinništu*, *ālittu*, *ardatu*). No texts appear to concern pubescent girls or menarche, and problems of menopausal women are not explicitly treated except the decline of fertility and perhaps the ceasing of the menses.<sup>42</sup> A few texts deal with specific diseases of the uterus (ulcers, tumours?) and with urological conditions (common problems affecting women until today), while ailments linked to the breasts, lactation or breastfeeding are almost completely absent: only one Late Babylonian text (BM 42507 and duplicates, text E.2.1) has so far been identified that contains a prescription for breast pain.<sup>43</sup> This finding is surprising, since one expects problems affecting women's breasts to have been common and represented to a greater extent in the Mesopotamian medical literature on women's healthcare (the scarcity in comparison with Greco-Roman and Egyptian medical texts is noteworthy, see e.g. Westendorf 1999, 427–428). Different interpretations for this lacuna may be offered. The lack of textual sources may merely be coincidental (the sources have just not yet come to light). However, other factors may be at play, e.g. having to do with different specialisations of healthcare professionals. Treatments for the breasts and for lactation may have been one domain of expertise of midwives and wet-nurses, and women who encountered such problems may have commonly

spell for a woman in difficult labour". For the latter genre, first millennium BCE texts also use the logographic rubric KA.INIMA.MA <sup>munus</sup>LA.(-)RA.AH.AKAM. Rubrics for Sumerian spells to stop bleeding from the second millennium are KA.INIM.MA IDIM.(KA).KÉŠ.DA.KAM 'recitation for sealing (lit. binding) the source (at the mouth)' or KA.INIM.MA MUNUS.KÉŠ.DA.KAM "recitation to seal (lit. bind) a woman", while the first millennium BCE therapeutic texts use the labels KA.INIM.MA MÚD MUNUS KUD-si "recitation for stopping a woman's blood" and KA.INIM.MA MUNUS *ša nahšāte* GIG "recitation for a woman who is sick with *nahšātu*".

<sup>41</sup> The first millennium BCE texts offer the rubric KA.[INIM].MA <sup>munus</sup>NU.Ù.TU *ana urri* "recitation to enable a barren woman to get pregnant" (N. 4001: 13 (and duplicate); text B.2.1) in the context of treatments for fertility, and the rubric KA.INIM.MA MUNUS NU S[I].SÁ.[KAM] "recitation for a woman who does not bring (pregnancies) to term" (*sinništu lā muš(t)ešertu*, STT 241: 29; text C.3.1) in the context of therapies protecting women from repeated miscarriage.

<sup>42</sup> For a discussion of menarche (only rarely mentioned in cuneiform textual sources), the question of puberty rituals and conditions interpreted as befalling adolescent girls and boys, see e.g. Scurlock and Andersen 2005, 272–274; Scurlock 2014b; Steinert 2023, 244–248 with further references.

<sup>43</sup> According to Asher-Greve (1997, 438), the female body/sex was "essentially defined by the vulva and womb", while breasts were "not conceived of as primary distinction between the sexes". The physical appearance of women's breasts was observed in Mesopotamian diagnostic and physiognomic texts for making predictions about a woman's reproductive capacities, about the sex of a pregnant woman's foetus, or about the wellbeing of the expecting mother and her child (see Böck 2000; Scurlock and Andersen 2005, 669–670; Minen 2020, 11–15 and *infra* on Diagnostic Handbook Tablet 36).

turned to such women for help and advice.<sup>44</sup> Among the “non-gynaecological” conditions surprisingly attested, albeit rarely, in therapeutic texts dealing with a female patient is epilepsy. Thus, a fragment from Assur contains treatments for epilepsy in a female patient (BAM 245; text A.1.3), but the context of the fragment, whether it belonged to a text focusing exclusively on women’s health or on treatments for epilepsy, is not completely certain.

The texts edited for the first time in this volume fill considerable gaps in the documentation of the spectrum of Mesopotamian women’s healthcare. For example, a few prescriptions for contraceptives have been identified for the first time in a Late Babylonian text (BM 51246+, text A.2.7). New are also prescriptions to improve a woman’s body odour and to treat a woman’s lack of desire for sexual intercourse, called “doing the work/duty of women” (*šipir sinnišāti epēšu*, see BM 42313+, text A.2.2).<sup>45</sup> Vice versa, there are also a few conditions affecting women that are still exclusively attested in sources outside the text corpus edited here, e.g. in drug compendia or related texts highlighting the uses of specific *materia medica*.<sup>46</sup>

In connection with evaluating the scope of ancient Mesopotamian women’s healthcare as a sub-field of medical practice, it is further remarkable that women’s healthcare texts were occasionally assembled with other materials. There are a few examples of therapeutic tablets with “mixed” content, i.e. procedures or prescriptions for women’s health matters combined with procedures for problems that are not peculiar to women or are not strictly medical in nature.<sup>47</sup> Thus, one text combines recipes for love magic and prescriptions for treating *ummu* “heat” (fever) in women (BM 47491), but also texts combining treatments for rectal diseases, the hips and women’s health (K. 8678+), skin conditions and women’s health (BM 50700; BM 61975), dream rituals(?) and women’s health (BAM 249, text D.1.3). A fragment from Assur contains prescriptions for a female patient suffering from “non-gynaecological” conditions (e.g. epilepsy, in BAM 245 (text A.1.3)), which could suggest that Mesopotamian women’s healthcare was a branch of medicine that had a much broader scope than treating merely female reproductive health (gynaecology) and thus develops towards a form of gender-specific medicine. This finding may hint at underlying developments within Mesopotamian medicine towards more differentiated views of male and female bodies and their physiologies, linked to increasingly differentiated knowledge about conditions that women are more prone to develop than men (and vice versa), having specific causes, as well as towards differentiated, gender-specific treatments for the same pathologies and diseases.<sup>48</sup>

Judging from the evidence of medical texts and other written discourses beyond this corpus, it seems that in Mesopotamian medicine, the female body was seen as standing in a kind of parallelism to the male body, although women’s anatomical differences, their gender-specific roles in reproduction, the existence of gender-specific complaints as well as the necessity of context-specific treatments are also clearly recognised (Steinert 2023).<sup>49</sup> For example, the most important body metaphors encountered in women’s healthcare texts to describe irregular processes in the female body (vessels and agricultural landscapes, canals, crafts and technologies) also served to conceptualize other types of conditions such as intestinal/digestive ailments, which are not restricted to women.<sup>50</sup> Haemorrhage and genital discharges form examples for conditions, in which male and female bodies were seen as behaving in a similar manner and as comparable with each

<sup>44</sup> For textual hints to ailments affecting women connected to breastfeeding/wet-nursing, cf. Stol 2000, 184; 2016, 378, 616.

<sup>45</sup> There are no references to “(sexual) arousal” (ŠA.ZI.GA, *niš libbi*) in women’s healthcare texts so far, cf. Zisa 2021 for discussion.

<sup>46</sup> For example, the term *šalputtu* “ruined” and the expression “to be touched by a touch” (TAG TAG.TAG-at), both referring to a complication during delivery, perhaps meaning a woman having a protracted delivery whose foetus has died in utero and needs to be removed (BAM 380 rev. 38–41 // BAM 381 iii 33–36; BAM 422 rev. iii 4' // BAM 421 i 27; KADP 22 ii 2; Stol 2000, 53–54; Mirelman 2015, 177–178, 181 K. 4206+ rev. 28). Likewise attested only in drug compendia is prolapse of the uterus, perhaps referred to in KADP 22 ii 4 (commentary): DIŠ MUNUS HÁŠ[<sup>šap-ru</sup>] GIG : HÁŠ ŠUB ŠÀ.TÙ[R] “if a woman suffers in her *thigh* (Akk. gloss: *šapru*) : *šapru* (means) dropping (*nadi*) of the uterus”. Cf. below on a similar expression for expelling the afterbirth (ÚŠ, *silitu*).

<sup>47</sup> A unique assemblage of materials is LKA 9 from Assur, which combines extracts of different texts associated with stones and amulet necklaces (e.g. an extract from Tablet 2 of the mythological composition *Lugale*), including amulets and other prescriptions to protect pregnant women (text C.3.5).

<sup>48</sup> For sick women in letters and other texts outside the medical corpus, see Stol 2016, 441–446. Some of them are treated by physicians and suffer from conditions such as abscesses, fevers, colic.

<sup>49</sup> In that study, I argue based on the creation account in the *Atramhasīs* myth that Mesopotamian traditions may have embraced a view of simultaneous similarity and difference between male and female bodies: they were created from the same (human) prototype and material substances, but men and women were equipped with anatomical differences marking their diverging roles in sexual reproduction. For the male body as the normative (or “default”) body in Mesopotamian medicine, and the subordinate position of the female body in the medical compendia, see Heeßel 2006. See further Couto-Ferreira 2018c for discussion.

<sup>50</sup> See e.g. Johnson and Simkó 2024; Steinert 2013, 2020; Steinert and Vacín 2018.

other (Steinert 2023). For example, a few texts compare female genital haemorrhage with nosebleed in men and recommend the same treatment for either condition (see e.g. texts C.1.4 and C.1.8). Haemorrhage from the penis and anus in male patients is often compared with blood flows from the vulva (be it menstrual or irregular), and abnormal genital discharges or urological problems are recognized as affecting both male and female patients.<sup>51</sup> The Late Babylonian disease taxonomy SpTU 1, No. 43 (Geller 2014, 4: 25–30; Steinert 2016, 231, 238; Wee 2021, 325, 329–333) also points to a similar reasoning that male and female reproductive processes and irregularities in these bodily processes have a parallel or common physiological basis, since it views both infertility (in women) and lack of sexual desire (in men) as being caused by the kidneys.

However, therapeutic texts from the first millennium BCE deal with topics such as genital haemorrhage and urological problems in gender-specific ways, and remedies for these conditions in men and women were collected in different treatises. Treatments for urological problems affecting women are included in “gynaecological” recipe collections (e.g. BM 42313+ (text A.2.2); BAM 237(+) iv 9–12 (text C.1.4)) rather than in the therapeutic treatise dealing with renal diseases (Geller 2005a). One of these passages is worth quoting as an example:

BM 42313+ rev. 1–6 (text A.2.2); var. BAM 237 iv 9–10 (text C.1.4); BAM 241(+) ii 9'–10' (text II.1.3):

“If a woman suffers from NI.NE (a burning sensation?) and *binding* of the urine (DIŠ MUNUS NI.NE *ki-is!* KÀŠ GIG-at), (and) her blood [...] into [...] (and) there is [...], this woman suffers from NI.NE. You tie ashes of *urbatu*-rush (and) ashes of poplar (var. one litre ashes of *amhara*-plant) (into) fourteen knots of cloth, [you insert (them) one by one into her womb (i.e. vagina)].

If ditto, **she shall drink ‘white drug’ in grape juice, [...].**

If ditto, **you crush *murrū*-plant with oil (and) pour (it) into her urethra (var. womb) with a bronze tube.**

...

If a woman suffers from (uncontrollable) discharging (and) ‘seizing’ of urine (DIŠ MUNUS ŠUB DAB KÀŠ! GIG-at), you wrap *imbū tāmti*-mineral in a wad of wool and put it into her womb.”

The condition NI.NE mentioned in this passage is only known from women's healthcare texts and thus appears to be a specifically female ailment associated with symptoms affecting urination (see further below).<sup>52</sup> Retention of urine and incontinence are also dealt with in the treatise KIDNEY on renal diseases (cf. Steinert et al. 2018), where one can at times find similar prescriptions with identical drugs or forms of treatment, but also differences (in the terminology and applied treatments). The prescriptions for women quoted above are gender-specific, in that they treat the condition with vaginal suppositories. The other two modes of treatment, potions and injection of *materia medica* into the urethra with a bronze tube, are also prominent in renal disease texts:

AMT 31/1+ 59/1+ 61/1 i 16–21, 23 (Geller 2005a, No. 2):

“If a man suffers from ‘stricture of the bladder’ (*hiniqtī elabuhhi*), crush shell of ostrich egg and *imbū tāmti*-mineral, he shall drink it in oil (and) beer.

If a man has *difficulty* with urine . . ., he suffers from stricture of the bladder. He shall drink seed of wild melon (*irriū*) in beer.

**You crush *murrū*-plant, mix it in oil, blow it through a bronze tube in his urethra, . . .**

...

You crush juice of *kasū*-plant, date juice, pressed oil, fish sauce, river locust **and ‘white’ drug, and he drinks it in milk.**

...

**You crush ‘white’ drug and mix it in oil and blow it through a copper tube into his urethra.”**

Other glimpses of a differentiated understanding of male and female bodies and their pathologies (at least in some contexts) are found in diagnostic and therapeutic texts. A few diagnostic entries in the *Diagnostic Handbook* add a comment that certain diagnoses (for specific symptoms/conditions) are “the same for a man and a woman” (*ana zikari u sinništi ištēnma*, e.g. *muruš rāmi* “love sickness”), which may express an exception (i.e. that the sections in the *Diagnostic Handbook* for-

<sup>51</sup> For example, BAM 205: 40–41 refers to abnormal genital secretions (*suhsu*, *su'su*) as a flow of semen (*rihūtu*) affecting both male and female patients: “(If) either a man's or a woman's seminal fluids (*su'su rihūssunu*) flow *copiously*(?), (and) they spill them while urinating” (Biggs 1967, 68; Scurlock and Andersen 2005, 89 sub 4.3). See also Steinert 2017a, 310–311; Zisa 2021, 413 for discussion. Note also the parallel reference to *mūsu*-discharge “from the vagina” (*šā ŠA GAL<sub>4</sub>.LA*) and “from the penis (urethra)” (*šā ŠA GÌŠ*) in Uruanna III 161–162 (quoted in MSL 10, 70: 19ff.; cf. CAD S, 293a sub b; CAD M/2, 246b sub 2). Related to symptoms of genital discharges may be sexually transmitted diseases, which were known to affect both sexes and referred to with terms such as *muruš nāki* “disease(s) of illicit intercourse”, linked to the “Hand of the goddess Ištar” (cf. Stol 2016, 444; Scurlock and Andersen 2005, 88–97).

<sup>52</sup> Another disease name only encountered in women's healthcare texts is NI.RA (see text D.2.1), which is a condition linked to the postpartum period.

mulated for a male patient were usually thought to apply only to men) or confirm a general rule (that omens formulated for a male patient are also valid for women).<sup>53</sup> More common are examples of diagnostic entries that give differentiated diagnoses or aetiologies, i.e. gender-specific causes or disease agents responsible for the same sickness in male and female patients.<sup>54</sup>

*Diagnostic Handbook* Tablet 26: 82'–83' (see also lines 45'–47', 48'–49'; Stol 1993, 46; Heeßel 2000, 285, 291; Scurlock 2014a, 199, 204):  
 DIŠ pa-rid-ma it-te-né-et-bi ma-gal DUG<sub>4</sub>.DUG<sub>4</sub>-ub u [l]g-d]a-na-al-lu-u[t] ana MUNUS LÍL.L[Á].EN.NA ana NITA MUNUS.LÍL.L[Á].EN.NA  
 “If he shudders (with fear) and gets up time and again, he talks a lot and jerks continually: for a woman (it is) a *lilitu*-demon; for a man, a *lilitu*-demon.”

Diagnostic entries for women outside *Diagnostic Handbook* Tablets 36–39 that complement identical or similar symptoms for male patients are rare.<sup>55</sup> However, several diagnostic entries pertaining to “sick women” in Tablet 37 are variants of diagnostic omens in sections dealing with the same conditions or symptoms affecting male patients (see text I.1.3–I.1.4 for detailed discussion). The following examples may illustrate the point:

*Diagnostic Handbook* Tablet 11: 22, 24 (Scurlock 2014a, 83; Scurlock and Andersen 2005, 19.41–19.42; Schmidtchen 2021a, 459):  
 DIŠ ŠU.MIN-šú ina UGU-šú NU DU<sub>8</sub>.MEŠ MÁŠKIM SÌG-s[u? . . .]  
 “If his hands never leave his skull, a lurker-demon (*rābiṣu*) has struck hi[m . . .].”  
 DIŠ ŠU.MIN-šú ina SAG.DU-šú GAR-na-ma la ur-ra-da-ni ŠU <sup>4</sup>lugal-ir<sub>3</sub>-ra u <sup>4</sup>mes-la[m-ta-è-a]  
 “If his hands are placed on his head and they don't come down: Hand of Lugalirra and Meslamtaea [ . . .].”

*Diagnostic Handbook* Tablet 37: 10 (see *infra*):  
 DIŠ MUNUS GIG-ma ŠU.MIN-šá ina SAG.DU-šá GAR-na-ma la ur-ra-da-ni ŠU EN ÚR KI.MIN MAŠKIM ÚR SÌG-aṣ UG<sub>7</sub>  
 “If a woman is sick and her hands are placed on her head, and they don't come down: hand of the “Lord of the roof” (*bēl ūri*). Alternatively, the ‘Lurker of the roof’ has struck (her); she will die.”

Within therapeutic texts, it can occasionally be observed that variant, but differentiated treatments were prescribed for the same or similar medical problem in a male and female patient. Examples can be found, for example, in the context of digestive ailments, haemorrhage, urological conditions, or in remedies for hair loss. For instance, BAM 240 obv. 26' and 28' (text D.2.1) contains a slight variant of a remedy for intestinal bloating due to ‘wind’ in the body found in BAM 575 ii 54–55 (= STOMACH Tablet 2; Johnson and Simkó 2024, 127–128 lines 124–125). In BAM 240, the remedy is recommended for a pregnant woman, in BAM 575, it is prescribed for a male (or generalized) patient. As a second example, specific remedies for hair loss in women were included in therapeutic texts or treatises focusing on diseases of the head (rather than in the women's healthcare texts), and these remedies are differentiated from the treatments for male patients with hair loss (see the *Appendix*, Chapter H for discussion).<sup>56</sup> Rarer statements to be found in the therapeutic texts are warnings to administer a certain remedy only to a male, but not to a female patient.<sup>57</sup>

53 See Heeßel 2000, 43. Note *Diagnostic Handbook* Tablet 14: 212' (Schmidtchen 2021, 577, 588); Tablet 18: 8–9, 30 (Heeßel 2000, 218–220; Scurlock 2014a, 173–175, Tablet 22: 6–9 (Heeßel 2000, 251–252, 258; Scurlock 2014a, 185–186, 189). For “love sickness”, see also Couto-Ferreira 2010; 2018c. Some diagnoses add instead “it is the same for an adult and a child”.

54 See also *Diagnostic Handbook* Tablet 3: 40 (Scurlock and Andersen 2005, 432.19.5; Scurlock 2014a, 14, 20 (lines 41–42); Schmidtchen 2021, 250, 259, 271–273; Wee 2018, 156), a diagnostic entry that links a set of symptoms with persecution by the goddess Ištar but stipulates differentiated causes (broken taboos?) in the case the patient is a man, a woman or an adolescent girl (*batultu*).

55 E.g. Tablet 3: 29 concerning sparse hair (cf. lines 24–28 for men); Tablet 13: 124' (concerning the belly (*libbu*), cf. lines 115'–125'); Tablet 14: 28 concerning paralysis of the hips (cf. lines 25–27); see Schmidtchen 2021, 249, 258, 525, 535, 565, 581.

56 The first entry in *Diagnostic Handbook* Tablet 30 (lines 1–4) contains a short prescription, which stipulates that the patient should be rubbed with gazelle horn, *ankinūtu*-plant, nine times if it is a man, and seven times if it is a woman (Scurlock 2014a, 223–224, restored from CTN 4, 72 vi 1'–8'; Stadhouders 2011, 39–51).

57 For example, a Nineveh text on respiratory ailments (BAM 554–556) features a recipe for a special potion (*sahunu*) for “all constrictions of the lungs”, specifying that it should only be administered to a man, but not to a woman (BAM 555 ii 15: *ana zikari teppuš ana sinništi lā teppuš*).

## 4 Women's Healthcare in Ancient Mesopotamia: Concepts and Practices

### 4.1 Concepts of the Female Body

Medical knowledge about women's bodies, the anatomy of women's genital organs and the conceptualization of physiological processes in the female body reflected in Mesopotamian medical texts has been the subject of previous studies (e.g. Steinert 2013; 2017a; 2020; 2023; Couto-Ferreira 2013; 2017; 2018a; 2018c) and is discussed in detail within the different chapters of this volume. Here, I will only briefly summarise the most important and new findings of the present study.

As mentioned above, due to the lack of theoretical discourse in Mesopotamian medical literature, concepts of the female body and its processes have to be gleaned from the vocabulary and descriptions of bodily processes found in the diagnostic and therapeutic texts themselves. The language of these texts is often ambiguous, euphemistic or metaphorical, but paradoxically the metaphors (e.g. in the medical incantations) give important clues for unravelling some of the underlying concepts. Furthermore, knowledge about normal processes linked to the female body such as menstruation often has to be inferred from the descriptions of abnormal and irregular processes (e.g. lacking or excessive menses). The preceding section showed that Mesopotamian women's healthcare texts focus primarily on conditions linked to reproduction, with the womb (*rēmu*, *šassūru*) featuring as the central organ of femininity associated with these processes.<sup>58</sup> However, the treatments for women suggest that Mesopotamian healers often understood and treated women's bodies and their ailments in a holistic manner, as is suggested by the concepts underlying therapeutic interventions for these female conditions (see further below).

#### Menstruation and Notions of Blood and Female Genital Bleeding

Many ancient medical traditions closely associate menstruation with female "nature" and women's reproductive capacities. Mesopotamian women's healthcare texts from the first millennium BCE attest to developments in the terminology and concepts of female genital bleeding: the appearance of specific terms and expressions to mark women's menstrual discharges from irregular and abnormal occurrences of genital bleeding and a discernible growing interest in regulating women's menstrual discharges (Steinert 2023). The most common expression in women's healthcare texts, *dām sinništi* "a woman's blood", is vague and ambiguous, although it is usually found in delimited contexts of prescriptions that either seek "to stop a woman's blood" (*dām sinništi parāsu*) or "to make a woman's blood appear" (*dām sinništi kulumu*). The causes behind cases of abnormal haemorrhage and amenorrhoea referred to with these expressions can be manifold and are rarely specified in the texts. Amenorrhoea may be due to pregnancy, poor diets, menopause or other bodily disturbances. The expression "to stop a woman's blood" may relate to cases of acute haemorrhage during or after delivery (as texts occasionally specify) or describe a symptom of some other gynaecological affliction, but less likely unusually heavy menstrual periods (menorrhagia), since these would stop by themselves (while the prescriptions often mention the contrary). Texts from the first millennium BCE show some terminological and conceptual differentiation, as they also use more specific expressions such as *dām harišti* "the blood of a woman in childbed" to refer to the lochia (the postpartum discharges). A group of texts are concerned with the condition *nahšātu* which refers to bleeding during pregnancy (for texts dealing with these problems, see Chapter C.1; text D.2.1 *passim*).<sup>59</sup> From the contexts in which the latter terms are used it is clear that Mesopotamian healers understood that it is normal for a pregnant woman not to menstruate,<sup>60</sup> and that women should emit postpartum discharges (see further below). Another expression for a genital haemorrhage that is used in reference to female as well as male patients is "to be struck/hit by the weapon" (*kakka mahāšu*), which should most likely be understood as a euphemistic expression for an abnormal haemorrhage and symptom of sickness, although the ancient healers appear to see it as a typical condition of women.<sup>61</sup>

<sup>58</sup> For knowledge of female anatomy and the terminology for the genitals and reproductive organs, see e.g. Böck 2014–2016; Steinert and Paoletti 2014–2016; Steinert 2017a. Neither the hymen nor the ovaries seem to have been known or designated by specific terms. A term for the clitoris not yet recognised as such in the dictionaries may be *pingu/pinku* "knob" (Stol 2020a, *BiOr* 77, 109).

<sup>59</sup> The term is understood here as a derivation from the verb *nahāšu* "to prosper, thrive" used in a euphemistic fashion (i.e. meaning that the foetus of a woman who suffers from *nahšātu* does not prosper, but is in danger of being aborted before term); cf. Butz 1982, 221–222; Finkel 1980, 41–42; Scurlock and Andersen 2005, 260 ("menorrhagia"); Steinert 2023, 241. The condition was understood as a "sickness" (*muršu*).

<sup>60</sup> For a passage attesting to exceptions from this rule, see the discussion of *Diagnostic Handbook* Tablet 36 in this volume.

<sup>61</sup> Men with a haemorrhage from the penis or anus are said to be "struck by the weapon like a woman" (Steinert 2023, 253–254).

In addition to these terms denoting genital bleeding, a few more words and expressions appear to refer to the menses more specifically, although the Akkadian terms in question do not refer to a typical monthly occurrence (as is the case in the ancient Greek counterpart terms *epimenia* and *katamenia*, for example). The word *maruštu* (NÍG.GIG) “trouble” is encountered both in Late Babylonian therapeutic texts and in the *Diagnostic Handbook* and refers to the menses in a euphemistic fashion that may express a view of this blood flow as unpleasant (although not polluting or impure), as does the word *sagū* (also *šagū* in Assyrian texts) “(menstrual) flow”, which may be connected with the verb *sagū* “to cause distress, trouble”. Both terms are only attested in first millennium BCE texts. The term *sagū* denotes a woman’s menstrual flow in several Late Babylonian women’s healthcare texts that aim at provoking (*kullumu* “to make appear”) *sagū*, when a woman “does not see” (*amāru*) her menstruation.<sup>62</sup> Some scholars connect this word with a term for menstrual bandage, and it is possible that the meaning “menses” developed from a more concrete meaning “(menstrual) bandage”.<sup>63</sup> However, in the attestations of *sagū* in the late women’s healthcare texts this word clearly refers to a flow of blood that is normal and expected to occur. It is explained as *dām ardati* “a young woman’s blood” in SpTU 1, No. 39: 6', a Late Babylonian commentary on *Diagnostic Handbook* Tablet 36 (see *infra* text I.1.1). In BAM 235 obv. 1, 7 (text C.1.1), a Neo-Assyrian text to stop female bleeding from Assur (ca. 8<sup>th</sup>/7<sup>th</sup> cent. BCE), the variant (dialectal) forms *šagū/šugū* are used instead of the usual term *dām sinništi* “a woman’s blood”, and a “bright red” (*pelū*) discharge is described.<sup>64</sup> Here, *šagū* seems to refer to a haemorrhage or discharge that is perceived as abnormal.<sup>65</sup> The meaning of the term *sagū* may therefore have developed towards a more specific meaning “menses” in the Late Babylonian period (in the 6<sup>th</sup>/5<sup>th</sup> cent. BCE).

A third and very rare term attested only in three Late Babylonian texts so far, however, may express a notion of the menses as something typical for women and allude to a notion of regularity, which is an exciting new insight. Thus, the word *kibsu* means “step, track, route” and can metaphorically denote the typical behaviour of a person. Like *dām sinništi* and *sagū*, the term *kibsu* is attested in formulations with the verb *parāsu* “to stop”, referring to the case that a woman’s menses, i.e. her normal “course”, has stopped. More significantly, one text (BM 47491, text A.2.6 lines 25–26) also links the stopping of *kibsu* with the decline of a woman’s fertility, thus clearly referring to a menopausal woman: *sinništu ša alāda u kibsa taprusu* “a woman who has ceased to bear and (to experience) the (normal) course (of women’s menses)”.<sup>66</sup> Thus, *kibsu* offers the semantic equivalent to the Hebrew expression *derekh ha-nashim* “the way of women” in Biblical texts.<sup>67</sup> Like its Hebrew counterpart, *kibsu* may mark the menses as something typical for women of childbearing age (as does the ancient Greek medical term *gynaikeia* “women’s things”), but not in terms of an ideal regular monthly occurrence (which is something never stated as such in Mesopotamian women’s healthcare texts).

A second significant idea or ideational complex that emerges from the present study of Mesopotamian women’s healthcare texts is the notion of (menstrual) blood or bleeding as a “hot” state (simultaneously linked to an excess of moisture in contexts concerned with stopping an excessive or abnormal flow of blood) and hence a notion of menopausal women as being “cooler” than women in their reproductive age or during childbirth in particular. This idea can be grasped in a Late Babylonian text from Uruk (SpTU 4, No. 153 obv. 7–9, text C.1.10), in a passage that describes the effect of a treatment applied to stop a woman’s blood as “cooling” (*kašū, takṣātu*), a process that results in the blood being held back (*kalū*). This idea of blood as hot and moist (which finds a fascinating parallel in Graeco-Roman medical theories based on the system of the humours) can be traced in some of the *materia medica* applied to stop gynaecological haemorrhage, which can be

<sup>62</sup> See text C.2.1 for discussion of the different attested spellings and the texts BM 45736 obv. i 4' and 5' (text A.2.5); BM 38624+ ii 20', 28', 30' (text A.2.1); BM 54587+73802 obv. 6', 8', 9', rev. 3, 9 (text C.2.3); BM 61975 obv. 5', 7' (C.2.4).

<sup>63</sup> Cf. CAD S 27 sub *sagū* B, translating “flow of blood(?)”, while AHw 1003 sub *sagū* II and CDA<sup>2</sup> 310, among others, regard *sagū* as a menstrual rag. Wasserman (2019, 1135) includes *sagū* in a survey of Akkadian words for underwear but notes possible confusion or overlap with the lemma *sāgu*, referring to a garment and sackcloth used as a piece of clothing worn around the hips (“kilt”), e.g. by soldiers and workers. For discussion, see AHw 1003 sub *sāgu* I CAD S, 27–28; Postgate 2001, 384–385; Gaspa 2018, 99, 184–185, 260–261; Steinert et al. 2018, 218, 275 on line 118 (for the occurrence of *sagū* instead of *dāmu* “(menstrual) blood” in an entry of the Assur Medical Catalogue); Steinert 2023.

<sup>64</sup> For written š pronounced as /s/ in Neo-Assyrian texts (and vice versa), cf. Hämeen-Anttila 2000, 9–10; Luukko 2004, 74–75, with spellings such as *pa-ri-iš-tú* for *paristu*, and *tiḡši-ši-ik-ti-šú* for *sissiktu*.

<sup>65</sup> For the concept of menses (*sagū*) that are not regular/normal (*lā išaru*), see BM 40152 (text C.1.8) line 15'.

<sup>66</sup> The expression relates to another term for a (post-)menopausal woman, *pariš/stu* “(woman) who has stopped” (CAD P, 187a). More commonly a menopausal woman is designated as a woman “who has stopped to bear” (*ša alāda parsat*).

<sup>67</sup> E.g. Gen. 31:35 and 18:11; see Philip 2006, 19–25; Lehmaus 2023, 34. The noun *derekh* has a similar meaning spectrum (“way, road, journey” as well as “(typical) manner, customary experience, condition or habit”) and is derived from a verb *darakh* meaning “to tread, to march” (Gesenius 1930 [1906], 202–203), as in the case of Akkadian *kibsu*, which is derived from *kabāsu* “to tread, step”.

regarded as signature ingredients evoking notions of dryness and heat or coolness (see Steinert 2020 and *infra*). The same logics of “like cures like” or treating a state of excess with a substance of opposite properties can also be traced in treatments for other conditions classified as hot, most prominently fevers. Thus, BM 47491 (text A.2.6), a Late Babylonian text already referred to above, applies substances with “cooling” properties to treat fever in a female patient, such as algae (an ingredient of aquatic origin) and “dust from underneath a woman who has ceased to bear and (to experience) the (normal) course (of women's menses)”. The same ingredients as well as numerous other ingredients that underline the application of a hot-cold-reasoning are encountered in prescriptions against fever (see Bácskay 2018 and *infra* for examples). Moreover, additional evidence for the application of a reasoning in terms of hot-cold can be found in prescriptions treating a reverse gynaecological condition, namely the retention of postpartum blood. In several texts, heat or hot substances are applied to induce the lochia, especially fumigations (see e.g. texts 0.4 and A.1.4 for discussion).

A debated aspect linked to (women's) blood, menses or other genital discharges is to which extent these flows were regarded as polluting or impure in ancient Mesopotamia. These questions have been discussed recently (Steinert 2023); therefore, only a brief summary is given here. From medical and other textual sources, which reflect a dominance of scholarly and male views on the subject omitting the experiences of women, it can be gleaned that genital discharges in general (including flows of blood and emissions of semen) were regarded and evaluated in ambivalent terms, and that such discharges (especially abnormal ones) were associated with disease, dirt and decay and led to cultic or ritual impurity. There are several hints that ritual impurity/pollution was believed to affect women with flows of blood, especially women in childbed in the period after delivery when they discharged the lochia (and referred to with terms such as *musukkattu* “impure woman”) and women who suffered from *naḥšātu* (bleeding during pregnancy). But the conception of ritual or cultic impurity may have included menstruants. Since ritual pollution could be transmitted to other persons through physical contact and was seen as defiling, it would need to be avoided for any direct contact with the divine and cultic sphere. The extent to which menstruants or postpartum women were required to go into seclusion or separated themselves in ancient Mesopotamia is uncertain and debated, and one expects that such practices were not uniform through time and dependent on social contexts. Reviewing the textual sources that come from the realm of healing professionals and scholars, including the women's healthcare texts themselves, one has the impression that male healers did not generally avoid direct contact with patients (whether male or female) suffering from conditions of a defiling character, including women with discharges, although we know very little in detail about healers' bedside manners and hands-on contact while examining and treating female patients. It is also remarkable that female body fluids associated with reproduction and childbirth are also seen as positive in some contexts and used as curative agents and as powerful substances to repel evil. This is especially apparent in the case of breast milk, in particular the milk of a *musukkattu* (i.e. a woman who has recently given birth), which was used in a range of medical contexts, e.g. in treatments against inflammation, fevers, epilepsy/seizures, in eye remedies (e.g. Steinert 2023, 276–280). This ingredient also occurs occasionally in women's healthcare texts, including milk of an “impure (*musukkattu*) cow”.<sup>68</sup>

Beside blood, Mesopotamian women's healthcare texts also mention other genital secretions and fluids, mostly referred to vaguely as *mū* “water, fluid”, a term that can stand for amniotic fluid, at times for other (normal or abnormal) discharges<sup>69</sup>, e.g. after childbirth (see *infra* and the next paragraph for further discussion).

## 4.2 Health Problems and Diseases Specific to the Female Body

Whereas some earlier scholarship on ancient Mesopotamian medical texts tried to identify the conditions described in women's healthcare texts in terms of modern biomedical diseases and modern biological knowledge (Scurlock and Andersen 2005), this study follows trends critical toward an approach of retrospective diagnosis and rather seeks to investigate the emic concepts and interlinked health practices as culturally embedded. This section outlines the most prominent issues and problems dealt with in the women's healthcare texts and highlights important insights as well as difficulties of interpretation.

<sup>68</sup> See text A.2.6 and *passim*. Other ingredients related to female body parts or fluids (human or animal) attested in Mesopotamian medical texts are placenta (of animals), urine of a postpartum woman, and an ingredient referred to as “soiled (menstrual) rag” (*ulāpu luppitu*), of which at least the latter may be an alias name (*Deckname*) for a plant (see Steinert 2023, 280–290).

<sup>69</sup> An example of an abnormal vaginal discharge are “fluids” (*mū*) caused by sorcery (affecting a woman who has been given “drugs of hatred” (*šammī zérūte*) to eat (BAM 237 iv 29; text C.1.4).

### Infertility and Conception

In Mesopotamian medicine, infertility (here understood merely as the inability to conceive and not in terms of more detailed modern definitions) is usually attributed to the woman and her womb and appears to be a gendered condition.<sup>70</sup> Mesopotamian women's healthcare texts allow us to trace multifaceted and quite complex concepts of female (in)fertility that revolve around dominant views of the womb and the physiology of the female body (e.g. Steinert 2017a; 2020). The metaphors and imagery encountered in this context view the womb as a receptacle or vessel for the male semen and assume that conception takes place when the womb is in a condition that it can receive (*maħāru*) and retain (*kalū*) the semen.<sup>71</sup> Consequently, notions of openness and closure are part of the treatment strategies for treating infertility or the inability to conceive. Some remedies are explicitly said to bring about an "opening" (*petū*) of the womb, while infertility may be addressed as being caused by a blockage (*sekēru*) (see Chapter B). The inability to receive or retain the semen in Mesopotamian women's healthcare texts (see BAM 240: 71ff.; text D.2.1) may also be compared to similar notions encountered in the Hippocratic treatise *Diseases of Women I* (Chapters 10–13; see Potter 2018, 42–55), where a woman's inability to conceive is connected to the observation that the patient discharges the semen within the first seven days after intercourse, which the Hippocratic doctors linked to closure of the cervix (mouth of the uterus) or to excess moisture in the womb.

Comparable causes of infertility envisioned in Mesopotamian texts are deformations or dislocations of the womb which hinder the semen from reaching the interior of the womb. The womb may be "twisted" (*zīr*; SpTU 1, No. 43 rev. 31) or "knotted" (*kuşsuru*; Lambert and Millard 1969, 108ff. K. 3399+ iv 51, 61) or "turned over; lying flat down" (*sahāpu*) rather than being in a normal state of straightness/uprightness (see UET 7, No. 123; text B.2.2 for discussion). Such conceptions of subtle movements or dislocations of the womb leading to infertility and to other problems such as pain and suffocation are also encountered in ancient Egyptian texts and in Graeco-Roman (e.g. Hippocratic) texts.<sup>72</sup> Moreover, infertility may be caused by impurities or some kind of physical "matter" in the woman's womb or body. Mesopotamian healers often attributed such impurities to adverse influences such as witchcraft or demonic attacks (see e.g. BAM 244 (text B.1.1) and UET 7, No. 123 for discussion); sometimes infertility is attributed to the anger of the personal god (BAM 240, text D.2.1; Steinert 2012a, 238, 398–399). The elimination of such "matter" and bodily impurities can be grasped from the therapeutic interventions applied to treat infertility, which consist of many purifying substances and treatments (such as baths, bandages, ointments as well as tampons).<sup>73</sup> Mesopotamian healers also sought to extend or restore a woman's fertility beyond menopause (see e.g. BAM 243; text B.1.2).

Closely linked to treatments to promote conception and remove infertility are tests with pregnancy prognoses, which are usually found in conjunction with such therapies (see N. 4001 and UET 7, No. 123; STT 98 (A.1.1)). It is difficult to decide in most cases whether these tests evaluated a woman's ability to conceive or detected signs of pregnancy (from the neighbouring ancient cultures both fertility tests and signs to establish whether a woman was pregnant are known). The Mesopotamian tests usually consist in tampons or suppositories filled with different (mostly unidentified) drugs, which were inserted into the vagina, removed after some time and examined, mostly for colour changes. These procedures differ from test procedures found in Egyptian papyri (and Graeco-Roman sources), which observed whether the woman suffered from an internal obstruction (detected by inserting a strongly smelling substances into the vagina and checking whether the woman later emitted the smell from her mouth) or whether the woman's urine caused seed of cereals to sprout. Both Mesopotamian texts and Egyptian papyri also employed tests where the woman's reaction to some ingested substance was observed (e.g. Westendorf 1999; Pommerening 2015; 2023).

<sup>70</sup> E.g. Stol 2000; Böck 2013; Steinert 2017a, 303–314. Female infertility was associated with serious distress: in prayers, the weeping infertile woman (*lā ălittu/ălidat*, lit. "woman who does not conceive/bear") serves as a point of comparison with the suffering petitioner (e.g. Oshima 2011, 164–165: 132). The corresponding (largely gendered) ailment in men was lack of sexual desire (*ŠA.ZI.GA*) linked to impotence (inability of male sexual performance), see Zisa 2021. The male counterpart to an infertile woman is the eunuch (see Steinert 2017a, 312 with n. 74).

<sup>71</sup> While the dominant view regards the role of the man (male semen) to "engender" (*reħū*) and the role of the woman to "give birth" ((*w*)*alādu*) to the offspring, a few texts suggest an alternative view that assumes a female contribution to the foetus, either in the form of seminal fluids (mingling with male semen) or in the form of other body substances (flesh, muscles, (menstrual) blood), see Stol 2000, 1–12; 2008. The processes of gestation were regularly described as an active, "productive" contribution of the womb that is compared with processes in agriculture (e.g. plant growth) and in craft production (e.g. pottery, textile industries); see e.g. Couto-Ferreira 2015–2016; Steinert 2017a.

<sup>72</sup> See e.g. Pommerening 2023; Potter 2018, *Diseases of Women I*, Chapters 10, 14–15; *Diseases of Women II*, Chapters 14–32, 95; *infra* text B.2.2.

<sup>73</sup> See also Böck 2013; Steinert 2020; 2021a for discussion. Since offspring was also a gift bestowed by deities, women and men (household heads) also turned to such deities with prayers and ritual offerings to receive help, see e.g. text B.2.6 with further discussion. Such practices are also mentioned in letters (e.g. SAA 10, No. 294 rev. 23–25; Parpola 1993, 234).

### Pregnancy and Miscarriage

Pregnancy and miscarriage form a second thematic focus of Mesopotamian women's healthcare texts. Other texts beyond these sources make it clear that the ancients saw pregnancy and childbirth as a prolonged period of risk and dangers to women and their babies. Infant mortality is believed to have been high in ancient Near Eastern societies, and the death of the mother in childbirth was presumably also not uncommon, as these subjects are also addressed in literary works (e.g. George 2010), in the so-called oracle queries (*tāmitu*) to the sun god and in letters.<sup>74</sup> While news of a woman's pregnancy were a reason for joy, the months of pregnancy also seem to have been accompanied by worries and uncertainties, and a host of different measures were undertaken to deal with these uncertainties. The diagnostic texts (*Diagnostic Handbook* Tablet 36–37) suggest that pregnant women's physical and psychological state, habits and behaviour (including sexual intercourse) were closely monitored for signs of risk (such as miscarriage, death of the mother or child; Minen 2020). A host of rituals, apotropaic measures and treatments was designed to protect pregnant women from evil influences causing miscarriage (especially witchcraft and demons such as the child-snatcher *Lamaštu*).

Furthermore, there are complex rituals and other therapies for women who had experienced repeated miscarriages in the past, referred to as (*sinništu*) *lā muš(t)ešertu* and *lā mušallimtu* (also written logographically, MUNUS NU SI.SÁ)<sup>75</sup> “(a woman) who does not bring (her pregnancy) to term”, a condition that is usually attributed to external agents including divine punishment for misdeeds that happened in the women's family (see Chapters C.1, C.3 and G in this volume). Several therapeutic texts contain prescriptions to prevent miscarriage, some of which mention miscarriage in the first, second or third month of pregnancy (e.g. BM 42313+, text A.2.2).<sup>76</sup> Other symptoms treated to avoid a miscarriage are bleeding during pregnancy and loss of amniotic fluid. A few medical texts contain treatments for other medical problems during pregnancy (e.g. BAM 240, text D.2.1), such as intestinal bloating or “wind”.

Recipes for contraception (MUNUS NU PEŠ<sub>4</sub> “to cause a woman to not get pregnant”) and abortion (*ša libbiša nadū/šuddū*(ŠUB)) “to cause a woman to expel her foetus” are rare in the preserved women's healthcare texts, which is in accordance with the Mesopotamian cultures' predominant pro-natalist attitudes, but nonetheless highly remarkable (see also below). The recipes for abortive remedies consist in potions or tampons inserted into the vagina, while the only text containing contraceptives (BM 51246+) appears to administer these as potions.<sup>77</sup> We have no information in which situations it would have been permitted for a woman to procure an abortion, and no written discourses are preserved about such ethical questions as to the exact moment when a foetus was regarded as a living human being and abortion prohibited by law.<sup>78</sup> From all the Mesopotamian legal texts, only the *Middle Assyrian Laws* (§53) contain a paragraph prohibiting women from procuring an abortion at their own initiative, under the threat of capital punishment by impaling and being denied proper burial; the same punishment was performed even if the woman died as a result of the abortion (e.g. Stol 2000, 41; Peled 2020, 196). The law thereby sought to protect male rights to offspring, regarding abortion initiated by the woman as an offence against the family. A few literary texts blame female professionals involved in midwifery, nursing, and women's healthcare of performing abortion or infanticide (see below).<sup>79</sup>

Abortion was presumably delimited from inducing delivery (of a full-term foetus) by its premature date (i.e. before the tenth month which was normally regarded as the proper month of delivery).<sup>80</sup> One situation in which assisted abortion

74 E.g. Lambert 2007, No. 12a i 11–16, No. 12b ii 4–14, No. 13 rev. 12–17; Stol 2000, 36; SAA 10, No. 187, 293 (Parpola 1993, 154, 229–230).

75 These terms are derived from the verbs *ešēru* “to be/go well, to be straight” and *šalāmu* “to be healthy, intact” in the meaning “to bring to term”. Another term encountered in this context is *šuklulu* “to complete, to create perfectly; to carry a child to full term”. The verb *ešēru* in the Š- and Št-stems can also mean “to give birth easily, promptly.”

76 Miscarriage is referred to as “dropping” (ŠUB, *nadū*) the foetus (*ša libbiša* “that of her womb”); the aborted foetus is called *nīd libbi* “dropped from the womb”, *kūbu* (a foetus of human shape) or *kirṣu* “nipped off”; a Sumerian expression is *sağ-iti-nu-til-la* “one who doesn't complete the months” (Stol 2000, 28–29).

77 For contraceptive drugs, see further below. It is likely that other contraceptive methods were known and used in ancient Mesopotamia, e.g. wiping the vulva after intercourse, sterile forms of sexual intercourse or perhaps even condoms made from animal gut, see e.g. Stol 2000, 37–38; 2016, 571–572; cf. CAD Š/3, s.v. *šuhhu* A, a term for a part of the gut (of animals), which can also refer to the buttocks, and is equated in lexical texts with the penis and vulva.

78 For texts that express concepts of foetal development and embryology, see e.g. Stol 2000, 1–12; 2008; Couto-Ferreira 2015–2016; Steinert 2017a and Chapter C4 in this book.

79 For these professionals who are connected to specific deities and cults, see e.g. Westenholz 1989, 250–260; Böck 2014a, 30–32; Civil 2011, 281–284; Stol 2016, 605–616; Steinkeller 2022, 21–32 and below.

80 Mesopotamian texts mention nine or more often ten months as the normal length of pregnancy (Stol 2000, 22–25 for discussion). Examples of Late Babylonian birth horoscopes and other astrological texts state that pregnancy lasted 273 or 277 days from the moment of conception, which

may have been legitimate could have been the premature death of the foetus in utero.<sup>81</sup> However, remedies to speed up delivery and recipes for abortion employed several identical drugs, which means that Mesopotamian healers knew about *materia medica* that caused uterine contractions. One of the texts with prescriptions for abortion (BAM 246 (text B.1.6) from the library N4 at Assur) also contained prescriptions to expel the placenta, which suggests the scribe who copied these remedies saw both contexts as related, and some of the drugs used to induce an abortion or to speed up a difficult delivery may also have been useful for expelling the afterbirth (see also below).

Concepts and knowledge about foetal development or embryology gleaned from cuneiform textual sources have been discussed elsewhere (Stol 2000, 9–26; Stol 2008; Couto-Ferreira 2015–2016; Steinert 2017a, 303–318, 320–322), so I will be brief here. Ancient Mesopotamian scholars haven not written down theoretical treatises on embryology, but in birth incantations one encounters images for the foetus (*ša libbiša*) *in utero*. The embryo is built up from procreative fluids and body substances of both parents (semen, blood, muscles, sinews) and shaped into a baby (*šerru*) of human form by the woman's womb (see BM 115745, text II.1.2), although deities are regularly seen as participating in this creation process. The foetus is depicted as “fish roe of the sea” (*niššulāt tāmātim*), a “creature of the flood” (*binīt edēm*), as an aquatic animal living in a shell (*dādum*) or as a prisoner (sitting in the dark, *āšib ekleti*); occasionally, a foetus is said to be “sleeping” (*šalālu*, see *infra*, *Diagnostic Handbook* Tablet 36, lines 5, 94; Stol 2000, 25–26).<sup>82</sup> In birth incantations, the baby is often described as an animal; there, especially snakes and wild animals (gazelles) embody models of easy birth (Steinert 2017b; Wasserman and Zomer 2022, No. 7, 9, 11–12; *infra* Chapter D).

The most important models of foetal development stem from crafts production and from agriculture, by analogy with the growth of plants from seed; the uterus may be likened to a fertile field, which makes the seed “sprout” (*šūšū*, see texts A.2.7 and B.2.1). The latter model is also applied in a Late Babylonian mathematical text that envisages a scheme of foetal growth, from conception to the moment of birth (for discussion and a new text manuscript, see BM 37014 (Chapter C.4) in this volume). This scheme calculates the gradual growth by stipulating the size of the foetus at different points of the gestation period, with units of measurement (length): on the day of conception, the foetus is “half a barley corn” long, and it grows steadily half a barley corn per day, reaching “five barley corns” on the tenth day of gestation. After one month the foetus reaches a length of three “fingers” (ca. 5 cm), and after ten months, when it has reached full term and birth is expected to take place, it reaches a size of one “cubit” (ca. 50 cm).

### Delivery and Problems in the Postpartum Period

As discussed in section 2 of this introduction, remedies to assure a smooth delivery (*alādu*, *ešēru* Š(t)-stem) and to ease difficult labour (dystocia) are attested from very early on and form the topic of specific thematic treatises on women's health in first millennium BCE sources. Treatments for problems during the postpartum period are regularly included in remedy collections for women, in texts from the Middle Babylonian and Middle Assyrian period (late second millennium BCE) onward (e.g. text II.1.4).<sup>83</sup> Beside terms for a woman having difficulty in delivery (<sup>“mūnus</sup>LA.RA.AH, *muš(t)apšiqtu* and related expressions with the verb *pašāqu* “to be narrow, to have difficulties”), the texts refer to birth pangs (*hilū*) and being in labour (*hālu*, *hiālu*), pain, screaming in labour, and the breaking amniotic fluids (*mū*).<sup>84</sup> A few texts speak of the woman “entering” (*erēbu*) the (stipulated) month of her delivery. One Late Babylonian tablet (SpTU 4, No. 153) seems to suggest the application of remedies to initiate delivery, in the case that a woman had not delivered in the expected month (text

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comes close to the normal term of pregnancy considered in modern medicine (i.e. 280 days or 40 weeks (= nine months and one week), counting from the last menses), see Rochberg 1998, 49–50, 74; Reiner 1995, 115; Stol 2000, 22.

<sup>81</sup> Such a life-threatening situation is mentioned in an Old Babylonian letter (see ABIM 15: 8–9 and the discussion on text D.1.6).

<sup>82</sup> Various features and (partially imagined) shapes of malformed foetuses or preterm miscarriages are described in the teratological omen series *Šumma izbu* on malformed births among humans and animals (especially in Tablet 1, see de Zorzi 2014).

<sup>83</sup> The woman in childbed (confinement) is designated with the word *harištu*, which is derived from the verb *harašu* “to lie in childbed” (AHw 326; CAD H, 103–104; cf. Stol 2000, 123 n. 82). The word *harištu* occurs beside the terms *ālittu* “woman in labour” and *mušēniqtu* “nursing (mother)” and is associated with “lying in her blood” (i.e. the discharges of delivery and the postpartum period), and with a bandage (*kannu*) absorbing this blood, but also being confined to bed (i.e. sickness), see also Steinert 2023, 281–282; Stol 2000, 125 n. 103. Note an oracle query for a woman in childbed (whether she will survive) in Lambert 2007, 90–91 No. 12c: rev. iii 17.

<sup>84</sup> See chapter D for discussion. Old Babylonian birth incantations use another word for the woman in labour, *aruhtum*, which has been connected with the words *arāhu* “to hurry, hasten” (i.e. hastened), (*w*)*arāhu* “month” (i.e. one who has gone through the months) or *arāhu* “cow” by different scholars, see e.g. Stol 2000, 20, 123; Wasserman and Zomer 2022, 70; *infra* text II.1.2 (BM 115745).

D.1.11). Vice versa, the textual record also preserves a group of rituals for the case that the calculated month of a woman's delivery fell in Nisannu, the first month of the Babylonian calendar (text D.3.1). According to the hemerological tradition, the birth of a child in Nisannu foreshadowed grave disaster for the parents, and therefore the rituals in question sought to postpone the delivery with divine help (of the sun god and moon god).

Delivery is an arena in which both male and female professionals were engaged, sometimes collaborating with each other (see e.g. SpTU 4, No. 153, text D.1.11; Stol 2000; Sibbing-Plantholt 2022, 291–302 and below). These sources suggest that the midwife (*šabsūtu*) functioned as the true “obstetrician” who monitored the progress of labour and could manually and by other means intervene in the delivery process in case of complications.<sup>85</sup> This is suggested by a fragment from Ashurbanipal's library in Nineveh, a text which appears to focus on the midwife (*lamittu* “wise woman”), giving instructions for interventions in the case of obstructed labour, e.g. when the baby was stuck in the womb or birth pangs had ceased (Sm. 157 + 1134, text D.1.6). This text appears to advocate actions such as reaching for the child in the womb, perhaps to turn a foetus with a malpresentation or pull it out from the womb.<sup>86</sup> The midwife was also responsible for cutting the umbilical cord (an action associated with the determination of the newborn's destiny), for depositing the afterbirth and taking care of the newborn infant, e.g. washing it, rubbing it with oil and removing stuff from its mouth to let it breathe freely (see e.g. texts D.1.5, D.1.9).<sup>87</sup> Occasionally, therapeutic texts for women or easy delivery include apotropaic or prophylactic treatments for the newborn infant, usually to protect it from divine or demonic agents responsible for causing disease (e.g. epileptic seizures) in babies (texts D.1.1, D.1.3).

Remedies to speed up difficult labour in Mesopotamian therapeutic texts (transmitted by male healing specialists) often combine incantations with the administration of drugs, which were administered as potions or other ingested remedies, rarely tampons, as well as ointments and massages applied to the woman's belly and trunk. The ingredients often carry a symbolic or metaphorical meaning alluding to the imagery of birth found in the incantations<sup>88</sup> that were recited over the remedy before application:

BAM 248 i 52–52; var. BM 36339 obv. 2'–3' (text D.1.1):

“The procedure for it: You stir oil-from-the-jar with an arrow that has [gon]e out from the *mouth* of a bow, you recite the incantation three times (over the oil), you massage (her) from the top (of her belly) downwards, and the child will come straight out.”

BAM 248 i 68–69 (text D.1.1):

“The procedure for it: (You take) dust from a crossroads, dust from the front (door) threshold, dust from the upper and lower drainpipe, dust from the door socket; you cut off a very thick reed (at) top and bottom, you throw (all the mentioned types of) dust into oil, you recite this incantation over it seven times, you fill the thick reed (with the oil) and rub it over her bulging belly from top to bottom.”

BAM 248 iv 13–15 and dupl. (text D.1.1):

“If a woman has difficulty in delivery, you pound fox grape-plant, ‘dog's tongue’-plant, *tuhlu*-plant, you fill a bottle with beer from an inn-keeper, you whisk these plants into it. She shall drink (it) on an empty stomach, and she will give birth quickly.”

Some of the drugs used as *materia medica* to speed up labour are also recommended for inducing an abortion, which suggests these were substances that caused contractions of the uterus (see below). A Late Babylonian text from Uruk (SpTU 4, No. 153: 25, text D.1.11) prescribes vaginal suppositories to “dilate” (*petū* “to open”) the woman's birth canal. Other actions to promote labour recommended in this text consist in having the woman walk around or ride in a wagon (text D.1.11). The Neo-Assyrian Birth Compendium (BAM 248 and dupl., text D.1.1) also contains a section recommending specific types of meat (turtle, pig, fox) to be consumed by the woman for easy delivery.

<sup>85</sup> For a possible instrument (*palū*) used by the midwife to “open the womb” (membranes), see Stol 2000, 83, 115, 171. For birthing postures and the brick of birth, see Stol 2000, 118–124. The birth brick (well-known also from ancient Egypt, where it is a physical support for the woman during delivery) is only mentioned in myths (*Atramhasis*) and hymns to mother goddesses but never occurs in Mesopotamian medical texts or birth rituals. Thus, we are little informed about its actual use in daily practice.

<sup>86</sup> Birth incantations speak of the foetus being stuck (*kānu*) or lying crosswise (*parāku*) in the womb, or the opening of the womb as being blocked (*kalū*, *sānāqu*), see Chapter D and text II.1.4. For a discussion of questions of agency (of mother or child) in the delivery process, see e.g. Steinert 2017a, 323–326. It is not uncommon for birth incantations to address the baby in the womb to come out.

<sup>87</sup> The performance of surgical techniques such as embryotomy (cutting up a (dead) foetus in utero to remove it) or caesarean sections could not be verified in cuneiform sources (see also Stol 2000, 127–128 on the expression *śilip rēmi* “pulled out from the womb”).

<sup>88</sup> For imagery and tropes of birth (e.g. the woman in labour as a boat loaded with a cargo going downstream, the woman in labour as a cow in dire straits, images relating to locked doors and passageways etc.), see Couto-Ferreira 2014; Steinert 2017a and *infra* for discussion.

A few sources outside the women's healthcare texts mention additional terms that appear to refer to complications related to difficult labour and are phrased in euphemistic and ambiguous terms. The word *šalputtu* "ruined (woman)" and the expression "to be touched by a touch" (TAG TAG.TAG-at), may perhaps designate a woman in a protracted delivery whose birth pangs have stopped or whose foetus has died in utero and needs to be removed (Stol 2000, 53–55; Mirelman 2015, 177–178, 181 K. 4206+ rev. 28 and below).

Remedies to expel the afterbirth (*silītu*) (which is delayed) are likewise found in a few texts (including specific drugs for this purpose listed in drug compendia)<sup>89</sup>, as are treatments that concern the retention of the lochia or postpartum discharges. In this context, one encounters several formulations that seem to be used interchangeably and refer to blood or fluids. The Neo-Assyrian text BAM 240: 40' explains symptoms such as fever and vomiting in childbed to be due to "the blood of the woman in confinement (i.e. the lochia), which is locked in her belly" (*dām ḥarištiša ša ina libbiša itteskiru*). Several texts use the verb *tāru* "to turn around/back" in the D-stem together with *mū* "fluids", presumably in a similar meaning "to block" (e.g. *Iraq* 31, 31: 2–3 (text 0.4): A.MEŠ-ša u MÚD.M[EŠ-ša ina ŠÀ-bi-ša?] GUR.MEŠ-ru "if a woman gives birth and then) . . . her fluids and [her] blood are blocked [in her belly(?)])". In other texts (e.g. BM 38624+ obv. i 24'–25', 30'–31', ii 19'ff.; K.8678+ rev. 3', texts A.2.1 and A.1.4), we find the phrase "she is blocked regarding (her) fluids" (*mē turrat*); BAM 240: 67' (text D.2.1) speaks of "blocked fluids" (*mē turrēti/turrūti*). NBC 4211, an unpublished Late Babylonian extract or excerpt from Uruk with medical passages, appears to differentiate these fluids further:

rev. 17 DIŠ MUNUS šá ina Ù.TU A.MEŠ-šú [tu<sup>2</sup>]-ru-ú-ma ana ŠÀ-bi-šú [x]

"In the case of a woman whose fluids are blocked (*turrū*) during delivery and [ . . . ] into her belly ( . . . )"

rev. 18 [DIŠ] MUNUS Ù.TU-ma A.MEŠ-šú ú-ta-ri ana ŠÀ-šú x[x]

[If] a woman delivers, and subsequently *she is blocked regarding* (or: *turns back*) her fluids, (so that they?) [ . . . ] into her belly ( . . . )"

rev. 19 [DIŠ] [MUNUS] A.MEŠ-šú tu-<<tu>>-ú-ru ana ŠÀ-bi-šú [x]

[If] a woman's fluids are *blocked/turned back*(?) (and) [ . . . ] into her belly ( . . . )"

The exact nuance of these expressions with *turru* (blockage or reverse movement?) remains difficult to grasp.<sup>90</sup> Treatments for this condition include tampons, washes, bandages, as well as fumigations from below and other forms of "heat treatment" seeking to release the fluids (see e.g. text II.1.4 and A.1.4). Other symptoms that are mentioned together with retention of the postpartum fluids are pain in the abdomen and pubic region<sup>91</sup>, fever, and "blocked intestines". The recurring mention of fever in childbed suggests that infections caused during delivery were a common problem; more serious cases also mention pus inside the womb, which additionally points to injuries during delivery (BAM 240: 65'). Further treated postpartum ailments are prolapse/dislocation of the anus/rectum, diarrhoea, sweating and a "loose" navel (BAM 240: 29', 30', 33'–35'; BM 38624+ i 34').

### Other Ailments

Apart from conditions associated directly with reproduction, several other ailments and health problems are encountered in the women's healthcare texts (see also above). A brief comment on these conditions needs to suffice here (for detailed discussion, see the editions of the texts in question).

Of a gynaecological nature is a serious condition referred to as *tikpū* "spots" on the womb, found in a Late Babylonian text from Uruk (SpTU 5, No. 253, text E.2.6). An exact interpretation is difficult, but the symptoms and treatments may perhaps be compared to the treatments for ulceration of the uterus in Hippocratic gynaecological texts (e.g. *Diseases of Women* I). This text has been taken as an indication that Mesopotamian healers undertook examinations of female patients' vagina and cervix with the help of an instrument to spread open the vagina (Scurlock and Andersen 2005, 259).

<sup>89</sup> See e.g. BAM 246 rev. (text B.1.6); BM 38624+ i' 14'–15'; ii 23'–24' (text A.2.1).

<sup>90</sup> The verb *tāru* "to return; to make turn back" in the D-stem can have the sense of "to be locked, closed (from the inside)" in connection with doors or gates, see CAD T, 273b sub 11d; CAD S, 143 sub 11; Steinert 2013, *JMC* 22, 7–8. However, another nuance of *tāru* in the D-stem with reference to body parts is further "to turn around".

<sup>91</sup> The text BAM 240: 17'–18' (text D.2.1) associate the peculiar disease term NI.RA with these symptoms: "If a woman gives birth and subsequently feels a piercing pain (in) her pubic region (and) her lower abdomen continually hurts her, that woman is afflicted by NI.RA-disease" (NI.RA DAB-si). Cf. Scurlock 1991, 173 n. 133; Scurlock and Andersen 2005, sub 12.120.

Such instruments are attested from Roman medical practice (the so-called *speculum*), but no comparable instruments have been identified in the archaeological record from ancient Mesopotamia.

Puzzling is also an ailment befalling women called “crab-(disease)” (*alluttu*), which is treated in a text from Assur that deals mainly with remedies against bleeding during pregnancy (*nahšātu*) and other morbid discharges from the vagina (BAM 237(+), text D.1.4). Different interpretations of this disease have been suggested (including body parasites such as lice). However, the disease term *alluttu* is the same word that is used for the zodiac sign Cancer, as is the case with ancient Greek *karkinos* “cancer”, which in Graeco-Roman medical texts is the term for malignant tumours (often of the female breasts). Therefore, the disease *alluttu* may be the Babylonian counterpart of Greek *karkinos*, and the disease concept may therefore have a Mesopotamian precursor (Steinert 2021a, 64–65; Stol 2016, 448).

As mentioned above, urological (or renal) conditions also receive some attention in therapeutic texts for women. A few texts include treatments against uncontrollable releasing of urine and difficulty urinating. Some form of incontinence may also be implied in the expression *tattikāt ūri* “dribbling from the vulva”. Another condition encountered in this context and already highlighted above in section 3 is NI.NE. The exact reading and etymology of the disease term NI.NE is uncertain, and several diverging interpretations have been proposed.<sup>92</sup> Labat (1953–1971a, 109b) interpreted the term NI.NE as an inflammation of the uterus. A reading of the signs as 𒂗.𒆠.UM has been proposed by Scurlock and Andersen (2005, 281 with n. 96), interpreting 𒂗.𒆠.UM as childbed or puerperal fever (connected to Akkadian *emēmu* (KÚM) “to be hot; feverish”).<sup>93</sup> However, the condition NI.NE is never mentioned with symptoms of fever, but beside the symptom *kīš šināti* “binding of the urine” (i.e. difficulty of emptying the bladder).<sup>94</sup> This symptom may thus have been a typical complaint associated with NI.NE-disease. It is therefore suggested here that NI.NE (or 𒂗.𒆠.UM) may refer to a burning sensation during urination.

The prescriptions often mention febrile conditions in female patients, which can be treated on their own or as one among other symptoms that are part of context-specific female ailments (e.g. postpartum infection, childbed fever). More specific terms attested in the corpus are *lī'bu*-disease/fever (BAM 240: 59'; cf. Stol 2007a, 11–15; Scurlock and Andersen 2005, 29–32; Bácskay 2018a, 5–6) and tertian fever (*ummu šalšu*), the latter of which is unique to a single Late Babylonian text (BM 47491, text A.2.6).<sup>95</sup>

Furthermore, women's healthcare texts feature prescriptions to treat skin conditions or lesions in a female patient, some of which are among the symptoms occurring after delivery, e.g. *sikkatu* “pock, pimple”, *ruṭibtu* “dampness”, *rišūtu* “itching” (BM 50700: 6', 12' (text A.2.3)), or *birdu*-pustules (BAM 240: 29' (text D.2.1); BM 79061: 15 (text A.2.8)).

### 4.3 Treatment Strategies, Medical Practices and *Materia Medica*

#### 4.3.1 Therapeutic Strategies and Types of Treatment

The women's healthcare texts have proven to be a highly fruitful and significant sub-corpus of Mesopotamian medicine for investigating medical practices, treatment strategies as well as therapeutic agents (*materia medica*) and their interrelations with body and disease concepts (see e.g. Böck 2013; Steinert 2012b; 2020; 2021a). Here I will summarize the most important findings and new insights stemming from research in previous works and in the present study.

Table 4 gives an overview of the therapeutic techniques and other measures encountered in women's healthcare texts with a selection of conditions treated with them. The chart illustrates the relative importance of some medical techniques employed to treat female conditions (e.g. a high frequency of tampons / suppositories (Akkadian *itqu*, *allānu*, *ubānu*, *maššitu*) and potions (*mašqītu*) as well as a range of alternative therapeutic options that are representative of Mesopotamian therapeutics in general and not exclusive to treating women. Therapies for women's specific health conditions were selected and applied in context-dependent ways, as can be seen from the table (see also Steinert 2020):

<sup>92</sup> Kirsch (1996) suggested to read the disease term NI.NE as *ni-ṭè* (CAD N/II, s.v. *nīṭu* “bloody excrement”); followed by Rumor 2016, *Studies L. Milano*, 596 n. 55. For example, in BAM 159 ii 49 and iii 10, the latter word occurs in connection with a disease of the anus. Cf. Finkel 1980, *AfO* 27, 45 note 13.

<sup>93</sup> See also Scurlock 1991, 173 n. 133; Scurlock 2014a, 576.

<sup>94</sup> See BM 42313+ rev. 1–6 (text A.2.2) quoted in section 3. Variants of the prescription are found in BAM 237 iv 9–10 (text C.1.4); BAM 241(+) ii 9'–10' (text II.1.3).

<sup>95</sup> See also SpTU 5, No. 253 (text E.2.6), *ummi irrī* “intestinal fever” (BAM 240: 39'; text D.2.1).

**Table 4:** Types of treatments and their application in women's healthcare texts.

Treatment Type	Purpose of Application
Tampons/Suppositories (inserted into vagina)	Fertility / conception; stopping bleeding; stopping loss of amniotic fluid; avoiding miscarriage; genital discharges; intestinal trouble; "wind"; postpartum fever and retention of the lochia; inducing the menstrual flow; inducing abortion; speeding up delivery (rare); tests (pregnancy prognoses)
Potions	fertility / conception; stopping bleeding; stopping loss of amniotic fluid; avoiding miscarriage; vaginal discharges; "wind"; diarrhoea; postpartum fever and retention of the lochia; inducing the menstrual flow; inducing abortion; easing difficult labour; tests (pregnancy prognoses)
Ingesting (rarely fasting)	fertility / conception; swelling / inflammation; diarrhoea; easing difficult labour
Ointments	fertility / conception; bleeding during pregnancy; avoiding miscarriage; fever; "wind", postpartum infection and retention of the lochia; easing delivery
Bandages/Poultices	fertility / conception; bleeding during pregnancy - avoiding miscarriage; pain in pubic region after delivery; postpartum fever; "wind"; diarrhoea; postpartum infection with skin spots
Fumigations	bleeding during pregnancy; intestinal trouble after delivery; retention of the lochia
Lotions/Bathing	fertility / conception; avoiding miscarriage; "wind"; postpartum infection (pus) and retention of the lochia; easing delivery
Enemas (into urethra, vagina or anus)	fertility / conception; pain in pubic region after delivery; "wind"; postpartum fever and retention of the lochia; pain in breasts/genitals (anus); NI.NE (problems with urination)
Sniffing substances (to induce sneezing)	being bloated with "wind"
Massage	easing delivery
Amulet necklaces and medicine bags	fertility / conception; stopping bleeding (also during pregnancy); avoiding miscarriage; vaginal discharge; easing delivery (rare)
Rituals / symbolic actions / spells	fertility / conception; stopping bleeding (also during pregnancy); avoiding miscarriage; vaginal discharge; easing delivery

The present study contributes to refining the understanding of medical terminology in Mesopotamian women's healthcare texts in the first millennium BCE. For example, systematic inquiry of the prescriptions for preparations inserted into the vagina revealed that Mesopotamian women's healthcare texts differentiate between tampons (Akkadian *itqu*) and suppositories which are called *maššitu* lit. "that which is worn/applied", or more specifically *allānu* "acorn" or *ubānu* "finger". Tampons and suppositories both ensure medical ingredients are absorbed by mucous tissues inside the body. The term tampon refers to ingredients wrapped into a tuft of wool or into a piece of cloth that are inserted into the vagina (or anus); suppository (or pessary) refers to a solid preparation of medical ingredients mixed with fat, wax or resin and brought into a conical or cylindrical shape. An additional function of tampons is to absorb body substances. Tampons are removed after a certain time, while suppositories are designed to dissolve after insertion into the vagina (or anus). The present study revealed the significance of the term *maššitu* (lit. "that which is worn", derived from the verb *našū* "to carry; to wear; to apply", also "to insert a medication into a body opening") as a general term for "suppository", used beside the more specific synonyms *allānu* "acorn", *ubānu* "finger").<sup>96</sup> This meaning has not yet been recognized in the Akkadian dictionaries, which translate the term as "mixture" or "ingredients".<sup>97</sup> It is important to highlight the meaning of *maššitu*, since this term is often translated as "tampon", which is in many cases a misleading and technically inexact rendering.<sup>98</sup> The designation "tampon" should be reserved for preparations that mention wrapping into wads of wool (*itqu*) or a similar

<sup>96</sup> For *našū* (ÍL) in instructions specifying that the patient applies or inserts a tampon or suppository into the vagina, see e.g. BAM 240: 22', 57' (text D.2.1); SpTU 4, No. 153 obv. 4, 6 (text C.1.10).

<sup>97</sup> See AHw 629-630, s.v. *maššitu* I sub 3 "Ingredienziengemisch"; cf. CAD M/1 389–390, suggesting the translations "ingredients; mixture". For the equation of the spelling *HI-tú* with *maššitu*, see Köcher 1963, BAM III, p. xxii. Goltz (1972, 75–78) does not discuss *maššitu* among the terms for suppositories and tampons.

<sup>98</sup> For example, the term *maššitu* is translated as "tampon" in Geller's discussion of UET 7, No. 123 (Geller 2023, *JMC* 41, 1–14). Similarly, Stol 2000, 130; Geller 1995–1996, 246.

textile, while *maššītu* should be translated as “suppository”, since it usually consists of a mixture of pulverized drugs that is blended with a fatty or sticky substance introduced into the vagina (less often into the anus).<sup>99</sup>

The application of vaginal treatments in Mesopotamian women's healthcare texts is based on an understanding of the womb as the central organ connected to female health and affected in gynaecological conditions, while their interchangeability with potions points to an understanding of internal ailments affecting the inner organs as treatable by administering medicine via the main orifices leading to the inside of the body (belly), especially via the mouth/anus in men and the mouth/vagina in women (i.e. from above and from below). The focus of the texts on the reproductive organs and on conditions associated with them explains the importance of treatments introduced into the vagina. The preference for potions and ointments/massage to ease delivery indicates that the prescriptions focused on directing the downward movement of the baby by applying treatments that supported this movement, while vaginal suppositories are only prescribed rarely in this context, explicitly to effect dilation of the birth canal (SptU 4, No. 153, text D.1.11).

Apart from potions, gynaecological texts sometimes prescribe other oral medicaments to be eaten or consumed (*akālu*) by the patient, consisting of different types of food. Fumigations from below form another type of treatment administered to the vagina, in other cases also to the mouth or nostrils. The application of the fumigants to the mouth, nostrils and vagina again suggests the idea of a central passageway connecting these body openings and the womb. This therapy was used, for instance, to dislodge fluids retained in the womb, such as postpartum blood, but also to stop bleeding (Steinert 2014a; 2014b; see text II.1.4, text C.1.4 (lines 26'–27'), text A.1.4). As elucidated in the present study, the uses of fumigation from below in these cases may be based on a reasoning in terms of the properties hot/cold and moist/dry. Since fumigants are both heating and can also have a drying effect, they seem adequate both to stop a flow of blood (excess moisture) and to release retained blood (since blood is regarded as hot in Mesopotamian texts, heating up promotes the flow of blood).

In some gynaecological texts, medicaments in liquid form are also administered via enemas, i.e. they are “poured” (*tabāku*) into the vagina or anus. In addition, medicaments could be “blown” (*napāhu*) into the vagina or urethra with a bronze tube (*uppu*). Rarely, a substance would have to be sniffed (*ešēnu*) by the patient through the nostrils to induce sneezing, to release a pathogenic substance (wind):

BAM 240: 26' (text D.2.1):

“If a woman gives birth and subsequently is distended and bloated with wind (*šemrat u šāra uddupat*), you have her sniff (lit. smell) the dust from a copper bell(?) and she will get well.”

External treatments in women's healthcare texts often consist of ointments/salves (*napšaltu*), with which the patient is rubbed (*pašāšu*) or massaged (*muššu'u*), e.g. in the context of delivery, to ease labour. Also popular are recipes for baths or lotions (*narmaktu, marhaṣu*) and recipes for poultices or bandages (*naṣmattu, lubku*), in which semi-solid, paste-like ingredients are smeared on a piece of cloth or leather and applied as a bandage (*ṣamādu*). Examples of washes, bandages and poultices applied in the context of postpartum conditions are associated with symptoms of infection and demonstrate that these treatments were intended to cool down fever, to treat associated skin conditions and probably also to cleanse the body from the outside. Enemas applied to the vagina as an alternative treatment for the same problem were presumably likewise intended to cleanse and cool the uterus and reproductive organs. Of interest in this context are also examples for treatments to enable conception and enhance female fertility, making use of external remedies such as washes, ointments and bandages (in addition to vaginal suppositories).

Gynaecological prescriptions for purposes such as enhancing fertility (promoting conception), protecting from miscarriage, stopping bleeding or other discharges also recommend amulets (mostly consisting of various stone beads, metals or plants strung on strings of wool or animal tendons) and medicine bags (drug ingredients wrapped up in leather, called *mēlu*) worn around the neck or other body parts. While such practices appear to a modern eye as purely “magical”, such amulets were prescribed by Mesopotamian healers for various medical purposes from headache, hair loss to epilepsy

<sup>99</sup> An exceptional Late Babylonian text with prescriptions for women (BM 42450+ lines 14"–15", text B.2.3) speaks of a “suppository with wool” (*maš[šītu] ša šīpāti*), which suggests *maššītu* could serve as an overarching inclusive term that could be specified to refer to a tampon. The Greek term in Hippocratic gynaecological treatises corresponding to *maššītu* is *prostheton* “suppository”, which, like *maššītu*, is derived from a verb meaning “to bring; to apply; to insert” (*prosthenai*; Goltz 1974, 226–228). See e.g. a group of suppositories in *Diseases of Women I*, 74 (Potter 2018, 161–167). Another direct correspondence between Akkadian and Greek terminology is found in Akkadian *allānu* and Greek *balanon*, both meaning “acorn-shaped suppository”.

or nightmares.<sup>100</sup> On the one hand, the amulet necklaces had protective and apotropaic functions, especially against evil forces such as sorcery, believed to cause a range of serious health problems as well as miscarriage and other female conditions such as abnormal genital discharge (Schwemer 2007; CMAwR 1–3). The belief in the healing powers of stones and other minerals links the Mesopotamian medical texts with other ancient and later traditions, but it is also tied to knowledge about medicinal and other (e.g. external) properties of the minerals and other ingredients (see e.g. Steinert 2020).

Last, but not least, for a truly representative picture of healing in Mesopotamian medicine, we should emphasise the important role of ritual procedures, specifically in dealing with women's health problems.<sup>101</sup> Such ritual procedures consist of recitations (prayers, incantations) addressed at (often superhuman) agents of disease and healing, and various symbolic and magical actions (sometimes including offerings). Moreover, incantations were often recited over remedies before application, to boost their powers and efficacy. In addition, healers sometimes observed specific ritual actions when procuring healing plants, the latter of which they also sometimes invoked before using them (e.g. Böck 2014a).

Ritual procedures usually deal with external agents responsible for health and disease: they seek to expel agents of disease and to remove their damaging influences from the patient, reaching out to deities and positive forces to get their help and support (e.g. Schwemer 2011). Symbolic actions often involve rites of transfer or substitution (e.g. Scurlock 2002; Couto-Ferreira 2013; Maul 2019; Abusch et al. 2020), in which the evil affecting the patient was transferred to an object and removed in exchange for some positive property, or in which a substitute (e.g. a figurine) replaces the patient. Specific objects and settings (places, locations) often play central roles in these rituals (see e.g. texts, C.1.4, C.3.10; D.3.1). It is also important to stress the psychological importance of such performances for the patient and her family, e.g. in such burdensome, distressful and frightening circumstances as infertility or loss of one's offspring (e.g. due to miscarriage), or in coping with risks and anxieties of pregnancy and childbirth and with problems that may have involved social stigma. Thus, it is a common element in the ritual performances that the patient was either allowed or required to express her feelings verbally, e.g. by repeating preformulated prayers or recitations (Couto-Ferreira 2015, 193–196).

Moreover, incantations recited by the healer can be ascribed ritual efficacy through several interlinked mechanisms. Healing spells are loaded with divine power and presence because they are said to have been communicated to the healer by the deities of his craft; they are composed in an unusual, poetic language or use mumbo-jumbo words to emphasize their power over demonic agents of disease (Veldhuis 1999). Mesopotamian incantations used in medical contexts also feature *historiolae* explaining the origin of the treated condition (often linked to the actions of deities) or present a prototypical patient that was healed. Thus, a famous and popular *historiola* transmitted in birth incantations from the second and first millennium BCE is that of the cow of the moon god who had difficulties in delivery and gave birth successfully through divine help (Veldhuis 1991; *infra* text D.1.1 and *passim*). Furthermore, Mesopotamian healing spells use (conceptual) metaphors as important epistemic devices to express conceptions about the body, disease and healing processes. By drawing on processes in other domains of experience these metaphors help to describe and explain processes in the healthy and sick body, while at the same time providing models or guides for choosing therapeutic interventions (e.g. Collins 1999; Böck 2014a; Steinert 2013; 2017a; Johnson and Simkó 2024).<sup>102</sup>

On the other hand, Mesopotamian healing spells were performative instruments of healing. Spells were believed to establish control over the disease entity and to have an immediate (activating) effect on the applied therapeutic agents, both of which served together as mediators that could bring about a change in the patient's condition. To this end, not only the agency of healing deities addressed in the spells was instrumental. Metaphors in healing spells function as clever devices that were intended to trigger anticipated changes in the patient's state by equating the patient's state with processes in other domains of experience (e.g. in the natural environment) that were seen as parallel.

<sup>100</sup> See Schuster-Brandis 2008.

<sup>101</sup> Although several textual sources contain only medical prescriptions (and no incantations/rituals, or vice versa), it is important to emphasize the equal status of "magical/symbolic/ritual" and "medical" practices in Mesopotamian healing practices from a general point of view. Thus, any type of treatment applied in healing texts could be referred to as "remedy" (*bultu*) or "procedure" (DÙ.DÙ.BI/KÙD.KÙD.BI) in the texts.

<sup>102</sup> For metaphors in medical cultures, see e.g. van Rijn-van Tongeren 1997; Martin 1987; Nerlich 2011; Pritzker 2003; Yu 2008; Horstmanshoff et al. 2012; Wee 2017b; Lehmhaus 2023. These studies show that metaphors highlight certain aspects, while hiding others, and that metaphors of the female body in the past and present often served certain ideologies by corroborating views of women (and their bodies) as inferior to or different from men.

### 4.3.2 Technical Medical Terminology in First Millennium BCE Women's Healthcare Texts: Some New Terms and Meanings

In addition to the terms for types of medical preparations and treatments discussed in the previous section, several new or rare technical terms occur especially in Late Babylonian women's healthcare texts, which deserve to be briefly highlighted here.<sup>103</sup>

#### *ribiku* “paste”

This term is found in BM 50700 (text A.2.3, perhaps from Dilbat), a Late Babylonian medical text with prescriptions for women that features several rare technical terms that are possibly loanwords from Aramaic. The term *ribiku*, occurring in this text as a designation for a type of treatment, is likely a variant form of the words *rabiku* or *ribku*, which dictionaries render as “decoction” or “mash”.<sup>104</sup> The related Akkadian verb *rabāku* “to stir” often found in medical prescriptions has cognates in Hebrew and Aramaic that mean “to mix”. It has been argued that the mixture produced by the action of *rabāku* is rather a thicker, semi-liquid, soft paste than a liquid, since in many recipes the produced drug mixture is applied in the form of a poultice or salve.<sup>105</sup> The context of some attestations of *rabiku* imply a mash that is eaten, although in other instances, the action of *rabāku* produces a potion (cf. CAD R, 8 sub b, 20). In BM 50700, the term *ribiku* most likely refers to a paste that was eaten by the patient after delivery and that was applied to the skin to treat skin conditions in women.

#### *paṣû*

The term *paṣû* occurs in two Late Babylonian tablets as a type of potion administered to a female patient. In BM 45736 line 4' (text A.2.5), a preparation designated as *paṣû* is good or prescribed “as a potion for [provoking?] the menstrual flow” (*pa-ṣu-ú šá ana maš-qut šá sa-ge-[e] [kul-lu-mu SIG<sub>5</sub>/SUM']*). In BM 45559 + 45574 (text A.2.4), a *paṣû zukkû* “cleansing/purifying(?) *paṣû*” is prescribed as a potion for a woman after delivery, which consists of a mixture of (date) syrup and oil. The notion of purification or cleansing in the latter text may be linked with promoting the flow of the lochia after a woman's delivery, a period during which women were regarded as impure (*musukkatu*).

The word *paṣû* itself is a variant of *peṣû* “white, pale, light-coloured”, which is usually an adjective, but here occurs in the function of a noun. A type of beer called (*šikaru*) *paṣû* is often encountered in Neo-/Late Babylonian texts (see CAD P, 330–331 sub 1d). It was made from dates and is mentioned beside “date beer” (KAŠ ZÚ.LUM.MA; see Landsberger 1967, 56; Stol 1994, 166–167). However, in the two texts under discussion *paṣû* has a more restricted meaning. The commentary HAR-gud B VI 82 gives the equation of *kaš-babbar* = *pe-ṣu-ú* “white/light-coloured (beer)”, which is further explained as *ribku* “decoction”.<sup>106</sup> In BM 45559+ and BM 45736, *paṣû* could be close in meaning to the word *ribku* explaining *peṣû* in HAR-gud.<sup>107</sup>

#### *muttapiḥtu*

This word is a newly attested term (hapax) not yet picked up in the dictionaries. It is found in the gynaecological compendium BM 38624+ (text A.2.1, line 87"") and appears to refer to a type of treatment or form of application. The term itself is derived from *napāhu* “to blow; to ignite; to rise”; the form *muttapiḥtu* suggests a feminine noun formed from the Gtn- or

<sup>103</sup> Note also the following attestations of new terms for drugs: *kal-damiq* “good-for-everything-plant” (BM 79061 (text A.2.8) line 2), *riqqi hili* “aromatic plant for the birth pangs” (BM 79061 (text A.2.8) lines 3, 5, 34), *hamedirānu*-plant (BM 79061 (text A.2.8) line 6).

<sup>104</sup> CAD R, 20 and 321; AHw 935a “ein Absud” and AHw 980b “ein (Drogen-) Absud”. The cognate Aramaic term *rbyk*, *rbykh*, which means “flour paste” (*Comprehensive Aramaic Dictionary* (CAL)), designates “a pulp of flour mixed with hot water or oil” (Jastrow 1903, *A Dictionary of the Targumim*, 1442b).

<sup>105</sup> See e.g. Goltz 1974, 47–48, 70 (glossing *rabāku* with German “verrühren”); Attia 2021, *JMC* 38, 77–78. Böck (2009, 116) suggests a meaning “to mix; to moisten”. For *ribku* in eye recipes, cf. Geller and Panayotov (2020, 259 comment on line 78' and *passim*), translating “infusion”, with IGI 1 line 33', IGI 2 lines 7, 99, IGI 3 lines 43', 98', 103' (*ribku ša īnī* “infusion for the eyes”); see also BAM 3 ii 46, Worthington 2006, *JMC* 7, 22. Scurlock (2006, No. 126) translates “balm” in this context.

<sup>106</sup> MSL 11, 89, there read as *labku*; cf. also HAR-gud B VI 71; AHw 857b sub 4.

<sup>107</sup> For *peṣû/paṣû* in medical prescriptions, see further BM 78963: 35, 50 (Stadhouders and Johnson 2018, in: *FS Geller*, 574, 578).

Dtn-stem participle of *napāhu* (cf. GAG 81 § 56g, sub *muttapris(t)* < \**muntapris(t)*). The literal meaning of *muttappiḥtu* may be “that which constantly flares up/produces heat”; it might be a by-form of *munappiḥtu* “bellows” (AHw 672b). Since the term seems to designate a specific type of treatment or application form for listed *materia medica* in BM 38624+, *muttappiḥtu* refers perhaps to an intended effect (a “heating treatment” aimed at producing sweat?).

### ***tahsīstu* “memorandum”**

The Late Babylonian text BM 45559 + 45574 line 16' (text A.2.4) features the word *tahsīstu* “memorandum, aide-memoire” in an unusual context introducing minute instructions about the use and processing of salt (*tābtu*), presumably for application in a medical context. Unfortunately, the passage is very fragmentary. Significantly, however, the term *tahsīstu* is not common at all as a rubric in medical texts – the word is predominantly known from first millennium BCE text colophons referring to the purpose of a copied text.<sup>108</sup> The usage of *tahsīstu* in BM 45559 + 45574 therefore signals a subtle change in the application of technical terminology, marking a piece of important information to be remembered or kept in mind by the practitioner.

### ***kuṣāru***

This term designating amulet necklaces worn by pregnant women, literally meaning “knotting” (and derived from the verb *kaṣāru* “to knot; to tie”), is attested only once in a Neo-Assyrian memorandum from Assur (BAM 363, text G.2).<sup>109</sup> It has not yet been included in the Akkadian dictionaries. The word is a synonym to the cognate noun *takṣīru* lit. “knotting; attachment” used interchangeably for “amulet necklace”.

### **Verbs for Processing Medical Ingredients with Uncertain Meaning**

A few Late Babylonian women’s healthcare texts edited here also attest to hitherto unknown verbs describing steps in the processing of medical ingredients, or they offer new or rare meanings for known Akkadian verbs. Two new terms that may be Aramaic loanwords are *seḥū* (or *sahū*)<sup>110</sup> and *hapū*<sup>111</sup>. They are found in a text from Uruk dating to the fourth or third century BCE (text E.2.6), in a context that suggests meanings such as “to mix” and “to pour over”, respectively. A second text (A.2.3) known from three manuscripts features the verbs *sapānu* and *naṭāpu*<sup>112</sup> as two subsequent steps in a preparation procedure, perhaps referring both to a drying process. The first verb *sapānu* usually means “to lay flat; to flatten” or “to pluck”, but for some occurrences in medical texts, a special meaning “to dip(?) in a liquid” has been proposed.<sup>113</sup> The medical context may specifically refer to laying something out flat to dry or perhaps to draining a washed ingredient. The Akkadian verb *naṭāpu* usually means “to tear out; to pluck”, but in the passage in question the word (a D-stem form) may rather be related to the Aramaic verb *ntp* means “to drip”.<sup>114</sup>

### **Other Textual Features and Scribal Peculiarities**

Apart from new technical terminology, some of the texts edited in this volume also display other unusual linguistic features or scribal peculiarities worth noting, e.g. references to oral lore.

<sup>108</sup> See e.g. Hunger 1968, No. 336: 1: *ana tahsīsti zamar naṣha* “quickly excerpted as an aide-mémoire”; No. 323: 4 *ana tahsīsti tāmartišu iṣṭur* “as a memorandum and for his reading he has written (it)”, no. 324: 2; [a]na *tahsīsti* [§]itassišu iṣṭur “as a memorandum and for his reading out loud he has written (it)”; all examples are from texts from Ashurbanipal’s library. For earlier (second millennium BCE) attestations of the word, see SAD Vol. 2, 52.

<sup>109</sup> For nouns with the form *purās*, see GAG § 55k sub 15.

<sup>110</sup> SpTU 5, No. 253: 24', 26', 35' (text E.2.6), spelled *ta-se-ḥi* and *te-se-eḥi-hi*. Cf. the Aramaic verb *shy* “to wash; to bathe” (Jastrow 1903, 971; Sokoloff 2002, 797; Geller 2024, 206).

<sup>111</sup> SpTU 5, No. 253: 31', spelled *ta-hap-pu*. Cf. the Aramaic verb *hph* / *hpy* “to cover; to strew/spread over” (Jastrow 1903, 491; Sokoloff 2002, 477).

<sup>112</sup> BM 50700: 7', 10' (text A.2.3).

<sup>113</sup> CAD S, 158–161 sub 3.

<sup>114</sup> *ntp* means “to drip”, in the D-stem “to drip copiously” or “to make drip” (see the *Comprehensive Aramaic Dictionary* (CAL); Jastrow 1903, 901; Sokoloff 2002, 745). For another conspicuous verbal form *tu-še-ep-su* referring to administering a remedy, see BM 42507 and dupl. (text E.2.1: 14').

Several first millennium BCE women's healthcare texts mark specific information contained in them, e.g. particular remedies, as oral tradition (*šūt/šā pī; šum'uttu*).<sup>115</sup> The origin of such knowledge marked as "oral lore" was presumably diverse and included information stemming from folk medicine or lay healing practitioners (see below section 5). However, labels such as *šūt pī* can also refer to a stream of knowledge that was not (yet) included in the "canonical" scholarly compendia and series of the first millennium BCE.<sup>116</sup>

A few manuscripts refer to oral information that is omitted in medical prescriptions but assumed to be common knowledge of the healer. Such information is marked by the phrases *šā/mala iqabakka* "(of) which/as much as one has told you".<sup>117</sup> These expressions resemble similar statements in commentaries (cf. Gabbay 2016, 201–260, esp. 212–213, 238–240), but the form *iqabakka* with the pronominal suffix in the second person masc. singular is not common in commentaries. The usual phrase found in commentaries is *mala/šā iqabū* "as much as/of which it (= the base text) said", which serves to introduce textual citations from the base text or explanations commenting on the base text.<sup>118</sup> In one instance in the text SpTU 4, No. 153, a comparable usage of *šā iqabū* is found, in which the phrase refers back to written information encountered earlier in the text:

SpTU 4, No. 154 obv. 13 (text C.1.10):

KU gišUR šā E-ú ul šā gišGIŠIMMAR {(KU) šā gišÁS[AL]}

"The powder of the beam **that is prescribed** (lit. 'that it (= the text) said (above)'), shall not be of the date palm, (but) [(powder)] of poplar wood."

Here, *šā iqabū* resumes the substance "powder of a beam" referred to a line before in the text and introduces an additional piece of information on the kind of wood that the log should be of. This information added in the comment may stem from oral tradition. In contrast, the phrase *mala iqabakka* usually refers to information on drug dosages not written down in the text, but communicated orally ("these drugs, as much as one has told you (to use)"), while *šā iqabakka* refers to lore associated with the uses of specific *materia medica*:

SpTU 4, No. 153 obv. 4 (text C.1.10):

Ú.MEŠ an-nu-tu **ma-la iq-bak-ka** 1.TA.ÀM ina-aš-ši

"(Of) these drugs, **as much as one has told you** (to be appropriate), she applies one unit (i.e. the same amount) of each."

BM 45736 obv. 9'–10' (text A.2.5):

K[U?]KU<sup>7</sup> šar-bat ŠIKA NUNUZ [lu]-ur-mu<sup>7</sup> KA tam-tim / [m]a-<sup>1</sup>la<sup>2</sup> iq-bak-ka 1.<sup>1</sup>TA<sup>1</sup>.ÀM SUM-in gab-bi [1]-en-šú la SUM-in

"[Powder(?)] of poplar (wood), ostrich eggshell, *imbu'* tāmti-mineral,<sup>10'</sup> (apply of them) **as much as one has told you** (to be appropriate). You administer (these ingredients) one by one/separately, you should not administer (them) all at once."

BM 45736 obv. 7'–8' (text A.2.5):

ŠIKA G[A.N]U<sub>11</sub><sup>["mušen?"]</sup> [l]u<sup>7</sup> A.["MEŠ?"] šā iq-bak-k[a] / šā i-ši giš-ma-ru u te-e[l-la]-tú<sup>7</sup>

"(Or you apply) os[tri]ch (egg)shell or the sap(?), **as one has told you to**,<sup>8'</sup> from the wood of date palm or grapevine (...)."

A third nuance with an explanatory or cross-referential function is encountered in the expression *šā ana . . . iqabū* "which is prescribed (lit. said) for . . .", which can be illustrated by the following instances:

SpTU 4, No. 153 obv. 5 (text C.1.10):

ūKUR.KUR "MAŠ.TAB.BA "sim-bir-ri šimGAM.MA 4 Ú.MEŠ šā **ana maš-ši-ti** E-ú šā ÚŠ-e

"Atā'išu-plant, *māštu*-plant, *simbirru*-plant (and) *sumlalū*-plant: (these) four drugs **which are prescribed for a suppository** (are good) for blocking."<sup>119</sup>

SpTU 4, No. 153 obv. 17 (text C.1.10):

[na<sup>4</sup>KUR]-nu DAB šā **ana maš-qit** <sup>erasure</sup> šā MÚD MUNUS KUD-si E-ú . . .

"The magnetic haematite, **which is prescribed for** a potion <sup>erasure</sup> for stopping a woman's blood, . . ."

<sup>115</sup> See e.g. BM 38624+ iv 3' (text A.2.1); BM 50700 obv. 11' (text A.2.3); SpTU 5, No. 253: 3' (text E.2.6); BM 45736 iv 12 (text A.2.5); BAM 240: 16' (text D.2.1).

<sup>116</sup> The expression *šūt pī* occurs otherwise in the subscripts of scholarly commentaries, where it indicates explanations that go back to oral teachings by master scholars in a teaching context (Frahm 2011, 44–45, 51–52 *passim*; Gabbay 2016, 51–52).

<sup>117</sup> SpTU 4, No. 153 obv. 4 (text C.1.10); BM 45736 obv. 7', 10' (text A.2.5).

<sup>118</sup> Gabbay proposes that *mala* could refer to a lemma that occurs several times in the base text ("as many times as it (is) said (in the text)".

<sup>119</sup> See also SpTU 4, No. 153 obv. 7 (text C.1.10). "*Maštakal* (and) *simbirru*-plant(?) are prescribed (*iqabū*) for cooling a pregnant woman."

In the first passage quoted above, the expression *ša ana . . . iqbu* serves to explain and specify the application method and therapeutic effect for a group of plants with haemostatic properties. In the second passage, with the comment concerning the use of magnetic haematite, the text lacks a prescription fitting the reference. However, since recipes with magnetite to stop bleeding are known from several other gynaecological manuscripts, the comment seems to draw on a pool of textual information that was probably established and known among the healers of the time.

Beside references to oral knowledge not written down, a few text passages also contain discursive statements referring to information not copied from the *Vorlage* and omitted from the manuscript (e.g. BM 45736 line 14'; text A.2.5). Sometimes, an incantation recited with a remedy was omitted in a manuscript (compared with the duplicating text copies) without special notice by the copyist (see e.g. texts A.2.7 and C.3.3).

The Late Babylonian medical prescriptions reflect a less strict and more variable format than texts from the Neo-Assyrian period. Among the scribal peculiarities of some Late Babylonian medical manuscripts edited in this volume are rare instances in which the text of a prescription does not conclude at the end of a line (as is usually the case in cuneiform medical texts, which often even rule off prescriptions from each other with horizontal rulings). In these exceptional cases, the following prescription starts in the middle of a line without interruption (e.g. BM 45559+ line 12', 16'; text A.2.4); in one instance, the scribe impressed a small vertical stroke with the stylus as a disjunction sign to mark the end of the preceding remedy and the beginning of the next prescription (BM 79061 line 36'; text A.2.8).

#### 4.3.3 Ingredients as Healing Agents in Women's Healthcare Texts

Mesopotamian texts such as pharmaceutical compendia and medical prescriptions show that healing professionals had detailed and complex knowledge about the properties and characteristics of a broad range of *materia medica*. However, the reconstruction and evaluation of this knowledge is often considerably hampered by the difficulties involved in identifying many of the ancient Akkadian and Sumerian terms for plants, minerals etc. and in trying to link them with modern taxa or species (see Böck, Ghazanfar and Nesbitt 2023; Rumor 2024 for recent overviews). Until now, only few of the hundreds of drugs mentioned in prescriptions and compendia on *materia medica* have been identified with certainty. Due to these uncertainties, it is also difficult to evaluate the pharmaceutical efficacy of the remedies and drugs employed in Mesopotamian medical texts (including women's healthcare) from a modern biomedical perspective. The same difficulties are discussed by scholars working on other ancient medical text corpora.<sup>120</sup>

However, all these difficulties and our distance from the Mesopotamians and their practices should not make us exclude the possibility that the ancients had some empirically valid knowledge and insights into the efficacy of healing substances in the treatment of specific health problems, even if some of the treatments recommended in ancient texts look overtly bizarre, or may have been of limited pharmaceutical effect, or were based to some extent on belief.<sup>121</sup> Seeing efficacy as a process arising from a bio-cultural nexus of interactions between humans and their environment, I regard these interactions involving patients, practitioners, drugs and environments as part of a “skilled practice” (Hsu 2010, 16), which integrates knowledge about the therapeutic, phytochemical effects of plants and other healings substances, but also culturally mediated concepts concerning the body, diseases and the healing processes effected by the properties of drugs.

Mesopotamian therapeutic texts often appear to be based on such a holistic or integrated understanding of therapeutic processes, drugs and their efficacy, which sees *materia medica* as *agents and mediators* of these processes rather than mere objects with certain properties.<sup>122</sup> The agency of *materia medica* as well as other objects and entities used for rites of transfer is underlined in the procedures themselves by direct invocations addressing these healing agents, referring to

<sup>120</sup> See e.g. Totelin 2009 and Flemming 2021 on gynaecological recipes in Graeco-Roman medicine. For recent discussions of issues of efficacy in ancient Mesopotamian medicine, see e.g. Rumor 2021; Zisa 2021. Studies on plants and healing practices in medical anthropology remind us that the efficacy of drugs is “a cultural construction with biological and social dimensions” (van der Geest et al. 1996, 167), which includes social expectations and cultural beliefs in the effectiveness of drugs beyond their pharmaceutical properties.

<sup>121</sup> For the (limited) efficacy of some medical practices in ancient and folk-medical traditions, see e.g. Root-Bernstein and Root-Bernstein 1997. For example, Pommerening (2006) investigated remedies from Egyptian medical papyri focusing on examples with identified ingredients and exact quantities, comparing them with modern pharmaceutical uses and recommended dosages. The selected remedies, drug uses and dosages corresponded quite well with today's pharmaceutical standards, thus implying that they could have been potentially effective for the indicated complaints. See also Pommerening and Steinert 2019.

<sup>122</sup> For concepts of agency and personhood attributed to healing plants in Mesopotamia, see e.g. Perdibon 2019.

their positive properties, powers or to their links with deities.<sup>123</sup> Another recurring action in medical procedures that was intended to boost the efficacy of healing substances was to let them stand under the stars (or certain stars) overnight – a procedure that may have been applied not only for technical reasons, but that may have served, according to E. Reiner (1995, 48–60), to “load” the remedy with divine powers.

As recent studies into Mesopotamian medical remedies including the present work show, the uses of curative agents in treatments were informed by empirical knowledge of pharmaceutical properties, but these often overlap with “symbolic”, “sympathetic” or “magical” uses based on other (material) properties of the *materia medica*, involving analogical reasoning or thinking in correspondences.<sup>124</sup> Thus, Mesopotamian remedies draw on multiple relations or “resonances” between significant properties of *materia medica*, the distinctive logics of their perceived effects unfolding through specific treatment regimes, and the perceived nature and properties of the treated conditions (e.g. Steinert 2020).

One promising approach to tracing emic conceptions of ancient medical prescriptions and *materia medica* that has great potential for the study of Mesopotamian therapeutic texts including women's healthcare texts is the concept of “medical (re)-enactment”, described by Pommerening (2017) for ancient Egyptian medical remedies. “Medical (re)-enactment” refers to the phenomenon that certain properties of healing substances and applied procedures physically enact or mimic characteristics of the treated ailment or anticipate the outcome of the therapy, similar to a “signature” ingredient. Elucidating the concepts underlying these “re-enactments” allows glimpses of an emic understanding of medical treatments and disease conditions. This approach can enrich our view of Mesopotamian prescriptions for women, offering an alternative perspective on ancient recipes as encoding knowledge about the various (e.g. material, pharmaceutical) properties of healing agents, their associated cultural meanings and how they are linked to concepts of the female body and its conditions.<sup>125</sup>

On a general level, Mesopotamian medical texts apply substances stemming from plants, minerals, animals and more rarely, the human body.<sup>126</sup> One recurring difficulty for a modern interpreter of Mesopotamian *materia medica* is that one plant may be known by many names and that some drug names are metaphorical or refer to animals or to body parts and substances. However, a section in the drug compendium Uruanna Tablet III explains that terms such as “dog's tongue”, “human bone” or “sailor's excrement” (also designated as *Dreckapotheke*) can refer to plants and should not be understood literally.<sup>127</sup> As a consequence, however, the exact nature of some drug designations in medical texts can be ambiguous and not completely transparent, since Mesopotamian medicine actually also employed a range of substances of animal origin such as hair, horn, blood, urine, milk, fats or meat.<sup>128</sup>

<sup>123</sup> On such invocations of healing agents (often simultaneously used in ritual or cultic contexts), which are traditionally referred to in Assyriology as “Kultmittelbeschwörungen”, see e.g. Cunningham 1997; Perdibon 2019, 162–169; Maul 2019. In the present corpus, see e.g. SpTU 5, No. 248 (text C.3.10); BAM 248 iv 34–38 (text D.1.1). For example, in a procedure in BM 51246+ (text A.2.7), the “dog's tongue-plant” (*lišān kalbi*) used in a treatment is referred to as “your plant” within an address to the sun god. See further on this below.

<sup>124</sup> Systematic correspondences in the uses of *materia medica* are attested in Late Babylonian Mesopotamian astro-medicine and astro-magic, in which plants, minerals and parts or substances of specific animals are chosen because of their association with zodiac signs or astral constellations (see e.g. Reiner 1995; Heeßel 2005; 2008; Geller 2014; Schreiber 2018a; 2018b). For such astrological allusions, see e.g. BM 47491 (text A.2.6) in the present volume.

<sup>125</sup> Examples of medical re-enactment in Mesopotamian women's remedies have been discussed in Steinert 2020. This study is drawn on in the following discussion.

<sup>126</sup> For overviews on Mesopotamian medical technology, pharmaceutical knowledge and literature, see e.g. Böck 2009; 2010b; 2011; 2013; 2021; Rumor 2018; 2021; 2024; Stol 2002–2005a; 2003–2005b. For healing substances in women's healthcare texts, see Böck 2013; Steinert 2020; 2021a; for animal substances see Herrero 1984, 50–53; Chalendar 2016; 2017; for the use of human body substances (e.g. urine, breast milk), see Biggs 2006; Steinert 2023.

<sup>127</sup> This phenomenon of alternative/alias names (or *Decknamen*) has been clarified through equations in drug compendia which list alternative names for the same plant. The explanation for the use of alias names is debated in Assyriological research. Franz Köcher (1995) sketched an interpretation of such names as *Decknamen* (secret names or coded names) used by medical specialists to hide specific knowledge from non-insiders. Others (e.g. Kinnier Wilson 2005; Rumor 2020; 2024) have argued that the matter is more complex and that such descriptive names for plants may often have had a popular character (i.e. that some such names may have been commonly known alternative designations for one and the same drug rather than secret names known only to medical practitioners).

<sup>128</sup> Suspicions of an ingredient being an alias name are often raised in cases pointing to repulsive body substances (so-called *Dreckapotheke*) such as animal excrement, urine or blood. However, whether such an ingredient is a “coded” name or whether it should be understood literally needs to be assessed on a case-to-case basis, considering criteria such as access to the substance/animal in question, feasibility of the drug in the light of the instructions given in a prescription, and the possible motivations for the use of a substance (Chalendar 2016; 2017). On the other

As elucidated by studies of ancient prescriptions for gender-related conditions, the uses of curative agents such as plants and animals often display symbolic connotations or analogical reasoning. Treatments often aim at transferring a specific property associated with the animal to the patient, as seen, for example, in Mesopotamian treatments to stimulate sexual desire and potency, which often employ ingredients derived from male animals known for their sexual vigour (Zisa 2021). Similarly, Totelin's (2007; 2009, 197–224) investigations of Hippocratic gynaecological prescriptions elucidate ingredients with sexual or fertility connotations. Mesopotamian women's healthcare texts likewise offer ample evidence for such connotations and culturally based connections between medical ingredients and concepts of the female body, its physiology and dysfunctions in connections with reproductive processes (e.g. Steinert 2020; 2021a).

That Mesopotamian healers were aware of such hidden meanings and associations underlying the selection of *materia medica* employed in their therapeutic procedures can be seen in two commentaries on a therapeutic treatise for childbirth (referred to here as the Neo-Assyrian Birth Compendium) from the first millennium BCE (see text D.1.1 for the base text and Chapter G for the commentaries). Thus, the commentaries go into great length to explain links between the *materia medica* employed to ease difficult labour on the one hand and the patient, her foetus and the birth situation on the other, underlining and bolstering their ritual/symbolic efficacy in the context. For example, one passage (11N-T3: 8–10; text G.1) explains the use of a reed and dust from a crossroads, by pointing out associations that are offered by the cuneiform script and the bilingualism of the texts, namely by analysing the components of Sumerian words in the base text in terms of equations in the Akkadian language that provide a direct relation to the woman, the baby and a prompt delivery (“to go straight”):

“(In the Sumerian phrase) gi èn-bar bà̄n-da šu u-me-ti (‘Take a small reed from the marsh’), gi (‘reed’) means ‘woman’; bar (the second element of the word èn-bar ‘marsh’) means ‘to go out’, bà̄n-da (‘small’) means ‘baby’ (or) ‘small (child)’. (In) ‘dust (sahar) from the street (sila)’, sahar means ‘dust’. ‘Dust’ (sahar) and ‘baby’ (sahar) are one and the same (phonetically). (In) ‘crossroads’ (Sumerian sila-lam<sub>4</sub>-ma), si means ‘to go straight’, said of ‘going’; la means ‘child’ (la’ū, which means) ‘little one’; and ‘people’ (ammu, written amma) means ‘seed’.”

The range of plant-based ingredients in Mesopotamian gynaecological texts includes grasses, rushes, reeds, thorny plants, soapworts, trees and their fruit, as well as vines, cereals, vegetables, and plant resins/gums. The *materia medica* thus includes many spices and foods, as well as liquids such as different kinds of beer, beer mash, grape juice/wine, vinegar and plant oils (perfumed oils produced by adding aromatic plants), which play an important role as carrier substances in medical preparations. Less numerous, but of considerable importance in the women's healthcare texts are also minerals and animal-based ingredients.<sup>129</sup> Concerning the latter group of ingredients, most frequently attested in these texts is the use of wool (especially for making tampons), shells, animal fats, horn, and eggshell. Shells (and cowry snails), which tended to be classified as “stones/minerals” (using the classifier for minerals) rather than animals, are used in Mesopotamian women's healthcare texts especially for amulets (together with other stones). However, shells, eggshells (of birds) and animal horn are likewise attested recurrently in treatments to stop bleeding, as are animal bones. Animal fats are encountered as carrier or lubricating substance for suppositories and tampons, while ghee or cream occur predominantly as component of oral remedies or ointments.

In the following, a few significant examples of *materia medica* for specific female health issues are discussed. Drug handbooks listing the most important simple drugs according to their indications or medical uses often also contain a section on women's ailments. These sections together with the prescriptions for the same purposes reflect a differentiated knowledge of the salient pharmaceutical properties of specific plants, while the prescriptions themselves also reveal complex cultural associations and logics (of analogical reasoning or thinking in terms of properties) underlying *materia medica* and their uses.

hand, animal ingredients (including repulsive ones) are widely attested in traditional medical systems throughout the ages; and such uses may sometimes be based on “perfectly valid medical reasons” (Scurlock 2006, 63).

<sup>129</sup> The women's healthcare texts alone mention ca. 48 different animals (including mammals, birds, fish, insects, reptiles, crustacea and mollusks (shells) as a source of an ingredient and ca. 20 different animal products, body parts or substances.

### Contraceptives and Fertility Enhancers

Beside fertility enhancers, which play a considerable role in Mesopotamian prescriptions for women as seen in the texts edited in Chapter B of this volume, the present study has identified the first examples for contraceptive remedies.<sup>130</sup> Both types of *materia medica* are also included in the “gynaecological section” of drug handbooks. One such gynaecological section in a list of simple drugs gives a sequence of herbal drugs for conception (“drug for acquiring seed/offspring”,  $\bar{U}$  NUMUN TUKU, *šammi zēra raši*), to treat infertility (“drug for a barren woman”,  $\bar{U}$  <sup>munus</sup>NU.ÙTU, *šammi lā ălitti*), followed by plants used for contraception (“drug for preventing a woman from getting pregnant”,  $\bar{U}$  MUNUS NU PEŠ<sub>4</sub>, *šammi sinništi lā šūri*).<sup>131</sup> The expression  $\bar{U}$  MUNUS NU PEŠ<sub>4</sub> has been interpreted differently as “plant for a woman who does not (or cannot) get pregnant,” i.e. as a synonym for a (fertile) woman who has difficulties conceiving a(nother) child. Yet, given the section of contraceptives in BM 51246+ and the similarity between the formulations it seems more likely that  $\bar{U}$  MUNUS NU PEŠ<sub>4</sub> should be understood as a “drug for (the purpose that) a woman does not get pregnant/for not letting a woman get pregnant” (*šammi sinništi lā eri/šūri*).

One of the plants with the indication  $\bar{U}$  MUNUS NU PEŠ<sub>4</sub> in the lists of simple drugs is the *ankinūtu*-plant. Interestingly, this unidentified plant is an ingredient in a prescription for abortion (BAM 246: 3; text B.1.6) and is prescribed as a simple drug in a recipe for contraception in BM 51246+ (rev. 11'; text A.2.7).<sup>132</sup> Its use both as a contraceptive and abortifacient may indicate that the healers saw these purposes as related (e.g., for ejecting the male semen after intercourse, or the foetus, when conception had already occurred). A second drug for MUNUS NU PEŠ<sub>4</sub> is (seed of) *haluppu*-tree, perhaps to be identified with the willow, which would be significant, since the bark of the willow (white willow or weeping willow (*Salix babylonica*)) was used in other ancient cultures as a contraceptive drug.<sup>133</sup> Interestingly, some plants are recommended for different or even contradictory uses in women's healthcare texts and drug compendia. One example is *pillū*-plant, the suggested identification of which with mandrake is uncertain (Stol 2000, 57–58). Thus, the root of male *pillū*-plant is recommended in a potion for contraception in BM 51246+ but also occurs as the main ingredient in a salve to speed up difficult labour (BAM 248 rev. iv 19–20 //; text D.1.1), and as a fertility-enhancing ingredient (BAM 244 obv. 4; text B.1.1). While this evidence is perplexing, the fact that male *pillū*-plant does not bear fruit makes it a suitable drug for ending a pregnancy, but also even more so for contraception (if we assume this choice applies analogical reasoning).<sup>134</sup>

Among the numerous herbal drugs recommended for promoting fertility, one may highlight that lists of simple drugs prescribe plant seeds (of the *atkam* and *kamantu*-plant) “to acquire seed” (i.e. offspring); thus, the part of the plant standing for fertility and reproduction was chosen to bring about female fecundity.<sup>135</sup> A couple of plants employed as fertility enhancers have widespread associations with fecundity in Mesopotamian cultures, such as the fruit-bearing date palm and pomegranate tree (Steinert 2021a, 64–69).<sup>136</sup> Furthermore, the prescriptions for fertility and conception show a pre-

<sup>130</sup> These contraceptive remedies are, interestingly, oral applications. Beside oral contraceptive preparations, other methods used by women in the past include vaginal suppositories as barriers that block the cervix (e.g. wool, absorbent cotton) or douches after intercourse (e.g. Riddle 1992; Root-Bernstein and Root-Bernstein 1997, 149–165; Westendorf 1999, 426; Stol 2000, 37–39; Totelin 2009, 214–219; Flemming 2021).

<sup>131</sup> BAM 380 rev. 25–41 (esp. 25–29) // BAM 381 iii 17–36 (esp. iii 17–22). The passage continues with drugs in the context of pregnancy, delivery and postpartum conditions; Stol 2000, 53–54; Couto-Ferreira 2014, 309. For discussion, see also Böck 2013, 29–36; Steinert 2021a, 57–60.

<sup>132</sup> The following prescription in BM 51246+ rev. 12', actually preserving the prognosis NU PEŠ<sub>4</sub> “she will not get pregnant”, recommends the *ašqulālu*-plant, which like the *ankinūtu*-plant grows in swamps, see Stol 2000, 54 with n. 35. The *ašqulālu*-plant is classified as a “drug for (inducing?) labour pains” (*šammi hāli*) in Uruanna II 39, see CAD H 55.

<sup>133</sup> See Thompson 1949, 291; Stol 2000, 42, with Riddle 1992, 31–33 (citing e.g. Dioscorides); Duke 2008, 404–411.

<sup>134</sup> Contrary to Riddle (2010, 15–18), there is no direct evidence so far for pomegranate (Akkadian *lurmū*) as a contraceptive in ancient Mesopotamian medical texts. Riddle's identification of the *haluppu*-tree with pomegranate should be refuted (see Steinert 2021b, 58 n. 87, 64–66).

<sup>135</sup> For the text passage, see BAM 380 rev. 25–26, duplicated in BAM 381 iii 17–19; cf. also the drug list BAM 1 i 18–20, prescribing the same two plants for getting seed, to be drunk in beer or inserted into the vagina (Attia and Buisson 2012, 26). Other plants recommended for fertility and conception in plant lists are *imhur-lim*-plant (lit. “it heals thousand (diseases)”, a very common medicinal plant), *išin eqli* (lit. “(grain) stalk of the field-plant”) and *lišān kalbi* “dog's tongue-plant” Böck (2014a, 141, 154, 157–158) suggested an identification of *lišān kalbi* with *Cynoglossum officinale*, but Böck, Ghazanfar and Nesbitt (2023, 118–123) now propose it could be *Plantago major*. See further Stadhouders 2011, 38 lines 46–48 and 40–42 with parallel KADP 4 lines 36–37; Stadhouders 2012, 17; Stol 2000, 52–53.

<sup>136</sup> E.g. BM 79061 obv. 5–8 (text A.2.8); BAM 408 i' 2'–3' (text A.2.9). Pomegranate and date were also used as aphrodisiacs in Mesopotamia, see Biggs 1967; Zisa 2021. Pomegranate seeds contain oestrogens; and modern trials confirmed the plant's potential to reduce fertility (in mice). Pomegranate has also been employed as an abortifacient (the bark has toxic properties and its consumption is contraindicated in pregnancy), as an emmenagogue, to ease delivery, stop bleeding, to treat cancer (e.g. of the breasts, genitals, uterus), venereal diseases, infections, inflammation, infertility, and to manage menopause and irregular gynaecological bleeding (Biggs 2000, 9; Duke 2008, 364–367; Riddle 1992, 25–26, 32–33, 40–44, 51–53, 94–97 and *passim*; King 1998, 147–148; Totelin 2009, 209–211, 222). Dates and their oestrogen-containing seeds and pollen were used in

ponderance for aromatic plants and for medicinal plants that are associated with cleansing and purifying properties and are used to neutralise evil and defiling forces, especially witchcraft. Among these plants are cedar (*erēnu*) and *kurkānū*-plant (for which an identification with turmeric has been suggested)<sup>137</sup>, tamarisk (*bīnu*), juniper (*daprānu*, *burāšu*), *śambalītu* (fenugreek) and various other aromatics.<sup>138</sup>

Several of the animal ingredients found in this context may have been used because of their associations with fertility or potency, such as (the edible) *ušummu*-dormouse and types of locust (*erib turbu'ti* “dust-locust”, *erib-tāmti* “sea locust”) employed in tampons.<sup>139</sup> The use of *pizallurtu* “gecko” in a tampon for fertility mirrors the use of this animal in prescriptions to promote potency / male sexual desire (especially “copulating geckos of the steppe”).<sup>140</sup> Other conspicuous ingredients for female fertility are “mongoose excrement” (*zē šikkī*, perhaps an alias name for a plant ingredient), “gazelle dung” (as a component of an amulet, perhaps a leather bag worn around the neck)<sup>141</sup> as well as prescriptions using animal bones (BAM 240: 71'-74' (text D.2.1); BM 42313+: 67–68 (texts A.2.2)). Bone may have been regarded as a substance resembling semen, since according to a birth incantation the bone of the foetus was believed to be built up from semen (see text II.1.2; Steinert 2020, 63–64). Moreover, some details in the methods of administration of fertility-enhancing remedies point to concepts of the female body and to metaphors of the womb linked to vessels (e.g. the notion of “opening” the womb for conception), to analogies from the domain of agriculture (e.g. notions of “irrigation” or “moistening”) as well as to notions of purification (Steinert 2017a, 303–318; 2020, 60–64).

### Menstrual Regulators, Drugs for Abortion and Delivery

Studies on birth control in historical perspective have noted a close connection in medical and folk-medical practices between abortive remedies and so-called menstrual regulators, i.e. drugs that induce the menses when they are delayed (emmenagogues), which may have involved uses as abortifacients interrupting an early term pregnancy (e.g. Riddle 1992; Böck 2013, 39–40). Both types of prescriptions “to cause a woman to abort her foetus” and for “making the menses appear” are attested in the Mesopotamian women’s healthcare texts (see Chapters B and C.2), but the ingredients elucidated from these texts show only few commonalities so far (e.g. *nuhurtu*-plant is attested in both contexts).<sup>142</sup> Interesting is the attestation of *ašqulālu*-plant to induce the menses, which fits its other attested uses as a contraceptive and as a drug to induce labour (see above).<sup>143</sup>

It has been noted however that several of the drugs encountered in Mesopotamian recipes for abortion are also recommended in prescriptions to promote (difficult) delivery, which suggests that these drugs caused uterine contractions. For example, the *nabruqqu*-plant (also *namruqqu*) occurs as a simple drug for abortion in BAM 246 (text B.1.6) but is known as

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folk-medical traditions as an aphrodisiac and for enhancing fertility, but also as a contraceptive, to treat genital sores, cancer (e.g. of the uterus or vagina) and venereal diseases, see e.g. Duke 2008, 327–328; Riddle 1992, 33, 51–53, 85.

<sup>137</sup> For *kurkānū*-plant as a drug promoting fertility, see BM 79061 obv. 11 (text A.2.8); N. 4001 obv. 15 // BM 51246+ obv. 11; N. 4001 rev. 2 (text A.2.7, B.2.1); BM 42313+ obv. 7 (text A.2.2), BAM 244: 31, 33, 37 (text B.1.1); BAM 247: 8 (text B.1.3), attested in two varieties, domesticated and wild. Scurlock (2020, 57–58) connects this use of *kurkānū* with the anti-androgenic properties of turmeric identified in modern studies. For critique concerning Scurlock’s identification of *kurkānū* with turmeric (curcuma), see Jursa 2009, 162 n. 74. See further BM 79061 obv. 11 (text A.2.8) for discussion.

<sup>138</sup> There are several identical ingredients and similarities in the use of herbal drugs for female infertility and for stimulating (male) sexual desire (SĀ.ZI.GA). For example, the “dog’s tongue-plant” is attested as a drug for both these purposes and for a woman in difficult labour, see Böck 2014a, 141; Zisa 2021, 160–164; BAM 380 rev. 31–31 // BAM 381 iii 25–26 (Stol 2000, 52–53); BAM 248 iv 13, 21–22 (text D.1.1) and below.

<sup>139</sup> For locusts in fertility treatments, see e.g. N. 4001: 16 (text B.2.1); BM 42450+: 17'-20' (text B.2.3); BM 45559+: 12'-16' (text A.2.4).

<sup>140</sup> See e.g. STT 98: 21' (text A.1.1); Zisa 2021, 167, 408–409 Text K Prescription 31: 135–140 = Text N Prescription 8 (ii 3–8). For mice and fertility, see also Böck 2013, 32–33. It may not be a coincidence that mice, geckos and lizards are associated with the female sexual organs in Mesopotamia, see Rumor 2017b, 200 n. 71; Zisa 2021, 98 n. 208.

<sup>141</sup> See BM 38624+: 7' (text A.2.1); AMT 66/9: 6'-8' (text B.1.5). Dung pellets (of a gazelle, sheep or an unspecified animal) occur several times in Mesopotamian prescriptions (e.g. Geller 2005a, in treatments for rectal diseases, in bandages, fumigations, suppositories). In the context of women’s prescriptions, dung may have been regarded as a fertilizing substance, by analogy with its uses in agriculture, see Steinert 2020, 61–62.

<sup>142</sup> See BM 47578 obv. 4 (text C.2.2); K. 8678+ rev. 13' (text A.1.4).

<sup>143</sup> See BM 47578 obv. 3 (text C.2.2). Another example for a drug used as contraceptive and to induce the menses is *imhur-līm*-plant (“it heals thousand (diseases)”) (BM 47578 rev. 1; BM 51246+ rev. 6'). However, the *imhur-līm*-plant is also recommended as a plant for an infertile woman (‘<sup>mūnus</sup>NU.Ù.TU) in BM 380 rev. 27 // BAM 381 iii 20. That the same plant seems to be used for opposite purposes in two different texts is surprising and needs to be investigated further. For a suggested identification with red bryony (*Bryonia multiflora*), see Böck, Ghazanfar and Nesbitt 2023, 155–159.

a plant for a woman who is *šalputtu*<sup>144</sup>, and used to induce the flow of postpartum blood (lochia) (BM 38624+ rev. iv 5'; text A.2.1). Similarly, the *ēdu*-plant (lit. solitary plant) is found among the drugs for abortion in BAM 246, while it is designated as a drug for a woman who is *šalputtu* (BAM 380 rev. 39 // BAM 381 iii 34). A conspicuous ingredient found in remedies to induce abortion and ease difficult labour is “(excrement of multicoloured) wall-lizard” ((*zē*) *šurār igāri* (*barmi*), which may be an alias name for an herbal drug.<sup>145</sup> The occurrence of “(wall) lizard” as an abortifacient may be compared with use of *anduhallatu*-lizard to induce menstrual bleeding (BM 42313+ obv. 16; text A.2.2), which recalls similar associations of geckos and lizards with fertility and potency.<sup>146</sup>

In a few cases, herbal drugs with expellant properties in Mesopotamian texts may be linked to abortifacients known in other traditions, although the suggested identifications of these drugs are not certain and need to be viewed with caution. For example, the *šunū*-plant (suggested identification: chaste tree (*Vitex agnus-castus*)) occurs as a drug to induce abortion in a manuscript from Nineveh.<sup>147</sup> This plant is also employed for different postpartum complaints, including gastrointestinal problems, fever and retained lochia (BAM 240: 23', 41, 58'; text D.2.1). Another plant associated with abortion in the text BAM 246 is *azupīrānu*.<sup>148</sup> As a related example, the use of *kamūnu*-plant (usually identified with cumin) in prescriptions to speed up delivery (e.g. SpTU 4, No. 153 obv. 22, 25) fits in with the use of cumin as abortifacient and utero-contractant in other Near Eastern cultures.<sup>149</sup>

Looking closer at drugs for a woman in hard labour (<sup>munus</sup>LA.RA.AH), two plants which are attested both in the prescriptions and in drug handbooks are “fox grape” (*karān šešebi*) and “dog's tongue”-plant (*lišān kalbi*).<sup>150</sup> Conspicuous are two further ingredients referring to an animal: *rikibti arkabi* “spur of a bat” and “excrement of *hurru*-bird” (*zē iṣṣūr hurri*).<sup>151</sup> The first ingredient is attested as a simple drug for difficult labour in BAM 248 iv 23 // (text D.1.1) and BM 38624+ obv. ii 26' (text A.2.1: 59''). In a medical text from Nineveh, *rikibti arkabi* appears as a gloss above the plant name *urānu* (probably a type of fennel or anise), which could indicate that the former might be used as an alias name for the latter.<sup>152</sup> The drug “excrement of *hurru*-bird” (*zē iṣṣūr hurri*) is encountered as an ingredient for a tampon to dilate the birth canal in a Late Babylonian text from Uruk (SpTU 4, No. 153 obv. 21, 24–25, text D.1.11). It is possible that this drug is likewise an alias name, since we know other plant designations with this naming principle.<sup>153</sup>

<sup>144</sup> Stol 2000a, 53–55 for discussion, with BAM 380 rev. 40 // BAM 381 iii 35.

<sup>145</sup> See BAM 246 obv. 2, 8; BAM 248 iv 16 //. Böck (2013, 37–39) discusses the possibility that “wall lizard” or similar terms encountered here may indeed be alternative designations for an herbal drug, used to keep the actual identity of the most efficacious ingredient to cause an abortion secret and inaccessible to non-specialists. This interpretation raises the question how to explain the occurrence of “uncoded” plant names such as *nabruqqu* side-by-side with bizarre or “coded” drug names such as “wall lizard” in the same context.

<sup>146</sup> See above; Zisa 2021, 98, 408–409 Text K Prescription 31: 135–140 = Text N Prescription 8 (ii 3–8).

<sup>147</sup> K. 8678+ rev. 13'–20' (text A.1.4). The proposed identification is based on the similarity of the word *šunū* to Syriac *šūnājā* (CAD Š/3, 309–310). Chaste tree was used as a contraceptive and abortifacient plant in the Graeco-Roman world, see Riddle 1992, 61, 78–79 and *passim*.

<sup>148</sup> The name *azupīrānu* means “resembling *azupīru*-plant”, and the latter plant is traditionally identified with saffron or safflower on etymological grounds (CAD A/2, 530–531; AHw 93; Thompson 1949, 159). Saffron was known as an abortifacient elsewhere in ancient times (Pangas 1990, 216 with n. 29; Riddle 1992, 244, Index).

<sup>149</sup> For identification (based on connections to the Greek and Arabic terms for cumin), see Böck, Ghazanfar and Nesbitt 2023, 90–93. For cumin as abortifacient, see Duke 2008, 159–160.

<sup>150</sup> BAM 380 rev. 31–35 // BAM 381 iii 25–40 (Stol 2000, 52–53); BAM 248 iv 13, 21–22, 24 // (text D.1.1); STT 98 rev. 2', 4' (text A.1.1); SpTU 4, No. 153 obv. 23, 26 (text D.1.11); BAM 248 rev. iv 13, 21, 22, 24 (text D.1.1) and *passim*. For “dog's tongue”-plant and “fox grape”, cf. Böck 2014a, 140–158; Böck, Ghazanfar and Nesbitt 2023, 67–71, 118–122. The drug *karān šešebi* “fox grape” is linked to black nightshade (*Solanum nigrum*) by the latter authors, due to the parallel Arabic term *'inab al-tal'ab* which has exactly the same meaning as the Akkadian.

<sup>151</sup> I retain the conventional reading *rikibtu* for U<sub>5</sub>, although as Chalendar (2018, *JMC* 32, 24–45) has argued that U<sub>5</sub> should be read *rikbu* rather than *rikibtu*, since direct lexical equations are so far only known for U<sub>5</sub> = *rikbu* (cf. CAD R, 343–344 and 344–345). Both terms are derived from the same verb *rakābu* “to ride; mount (sexually)”, but *rikbu* seems to have a completely different range of meanings (including “pollen of the date palm”), while *rikibtu* lit. “copulation, pollination” occurs as a term for a body part/substance specifically of either the stag (*ayyalu*) or the bat (*arkabu*). The exact meaning of the word *rikibtu* is disputed and different suggestions have been pronounced about its interpretation; it is at least clear that *rikibtu* refers to a body part or substance. Some think *rikibtu* refers to guano, semen or musk (secreted by musk deer), others suggest an identification with the dewclaw (of deer) and bat thumb, respectively. It has been noted that *rikibti arkabi/ayyali* occur both as aphrodisiac substances in Mesopotamian medical texts (see Zisa 2021, 165–173; Biggs 2002, 75–76).

<sup>152</sup> AMT 47/1+ ii 12 (Geller 2005a, text No. 24); for *urānu*, see CAD U/W, 206–208; Civil 2008, ARET 4, 105 No. 223; see also Maul 2019, 300 note on Text 78 line 76 (BAM 168); Heeßel 2016, 32–33). The *urānu*-plant occurs as a simple remedy to induce the menses in BM 47578 obv. 7 (text C.2.2) Interestingly, *rikibti arkabi* may occur for the same purpose in SpTU 1, No. 59 4'–6' (text C.2.1).

<sup>153</sup> For instance, “dove excrement” (*zē summati*) is an alias name for the seed of *asāgu*-thorn; “dog excrement” (*zē kalbi*) is an alternative name for the *nikiptu*-plant (a strongly smelling plant).

### Ingredients to Stop Gynaecological Haemorrhage and to Protect from Miscarriage

One of the central topics of Mesopotamian gynaecological remedies is abnormal bleeding, in particular haemorrhage during pregnancy and delivery.<sup>154</sup> The most prominent type of treatment for gynaecological bleeding in these texts are tampons or suppositories inserted into the vagina and potions. The recipes apply a variety of different (plant, mineral, or animal) substances, some of which have astringent or haemostatic properties (e.g. alum). Numerous parallels to identified ingredients encountered in these prescriptions can be found in other ancient medical traditions as well as in folk-medical practices, and many of the drugs prescribed for stopping haemorrhage or similar discharges in female patients also occur in therapeutic texts concerned with similar conditions in men (Steinert 2012b). Beside haemostatic properties, several ingredients encountered in the context of gynaecological haemorrhage provide signature elements alluding to the haemorrhage (as hot and moist). Thus, ingredients having a red colour obviously highlight this connection, such as the reddish pigment *kalgukku*, used beside yellow ochre (*kalū*) and haematite (*šadānu*, also known as haemostatic “blood stone” in the Egyptian, Graeco-Roman, Arabic and Western traditions), the root of *hûratu*-plant (madder) which contains a red colourant, *illûru*-plant (which has a red flower/fruit), or red-coloured wool used for tampons into which ingredients were wrapped and then inserted into the vagina. Sometimes, also the name of the drug (e.g. a substance referred to as Akkadian as “cedar blood” (*dām erēni*))<sup>155</sup>, provides a link between the drug and the treated condition.

The insertion of tampons/suppositories into the vagina as a prominent therapeutic strategy in the context of gynaecological bleeding can be seen as corresponding to the metaphors comparing the female body to a leaking vessel or to a field or meadow flooded by the river, with its bank / dike having collapsed through the excessive flooding (e.g. BAM 237(+), text C.1.4). Suppositories (*maššītu*) and particular *materia medica* administered with them were explicitly prescribed for the purpose of “damming up/blocking” (*pehû*) the blood flow, thus enacting the goals of sealing a leaking body opening, as well as of containing and stopping the body fluids.<sup>156</sup> In this context, another term *lubbuku* occurs together with *pehû*. For example, the remarkable Late Babylonian text SpTU 4, No. 153 obv. 2, 6, 9, 11, 14 (text C.1.10) also speaks of suppositories and medical substances with the effect of “absorbing” (*lubbuku*). This verb occurs in the meanings “to lubricate; to soften; to make supple” in other medical texts, when it refers to therapeutic effects of remedies on the body.<sup>157</sup> As in SpTU 4, No. 153, *lubbuku* is encountered together elsewhere with the term *maššītu* “suppository”. For example, BAM 303 (a Neo-Assyrian extract tablet copied by the healer Kişir-Aşsur), contains four different *maššāti ša lubbuki* “suppositories for softening”, including a *maššītu* for making stiff (muscles) supple (*šaggi ana lubbuki*, line 22') and a *maššītu* for releasing ‘wind’ (line 21'; cf. Arbøll 2021, 285–286). While the meanings “to soften” or “to lubricate” fit well for *lubbuku* in the context of stiff muscles, it is suggested that in connection with stopping bleeding, this verb may have the specific meaning “to absorb” (body fluids).<sup>158</sup>

Interestingly, prescriptions against bleeding in the text SpTU 4, No. 153 (text C.1.10) speak not only of damming up (*pehû*) and absorbing (*lubbuku*) but also recommend drugs that “dry up” the wetness (*abālu*, obv. 4 and 14) and “cool down” (*kašû*, obv. 9, 14; *ana takṣāti* “for cooling”, obv. 7) the patient, so that “the blood will be held back” (*dāmū ikkallû*, obv. 9). The latter notion of a “cooling” effect associated with halting a haemorrhage is remarkable, given the occasional characterization of menstrual blood as hot in ancient Greek medicine.<sup>159</sup> In SpTU 4, No. 153 obv. 7–8, *maštakal*-soapwort (an astringent substance) and *simbirru*-plant are recommended “for cooling a pregnant woman” (with a haemorrhage during the first trimester) or for acute bleeding after delivery, and the former plant is also among the drugs for treating *nahšātu* (bleeding during pregnancy) in the gynaecological sections of drug lists.<sup>160</sup>

Moreover, several elements in the remedies for gynaecological haemorrhage can be read as “medical re-enactments” using signature ingredients and forms of preparation that present a link to the intention of “drying” an excessive wetness implied by the haemorrhage. Thus, the use of dry ingredients (such as powder of *šupuḥru*-cedar or powder from an old

<sup>154</sup> See for previous discussion, Steinert 2012b; 2020, 57–60.

<sup>155</sup> For *dām erēni*, usually interpreted as cedar resin, but perhaps to be identified as cedar tar, a liquid substance of brown or black colour produced through heating of cedar wood (a process called pyrolysis), see Böck 2023, 121–125; Böck, Ghazanfar and Nesbitt 2023, 78.

<sup>156</sup> SpTU 4, No. 153 (text C.1.10) obv. 2, 5, 10. The verb *pehû*(*UŠ*) “to block; to bar; to lute” occurs elsewhere in connection with stopping gynaecological haemorrhage, see e.g. K. 263 + 10934 rev. 42–44 (text C.1.5); Steinert 2012b.

<sup>157</sup> In instructions for the preparation of medical substances, *lubbuku* also means “to soak; to macerate ingredients in a liquid” (Goltz 1974, 43; Herrero 1984, 43, 68).

<sup>158</sup> For this expression in women’s healthcare texts, see also BM 38624+ obv. i 10' (text A.2.1); BM 50700 obv. 11' (text A.2.3).

<sup>159</sup> See King 1998, 32–33, 90; Totelin 2009, 197.

<sup>160</sup> BAM 380 rev. 30 // BAM 381 iii 23–24 (Stol 2000, 52–53).

wooden beam) and the use of roasted materials devoid of moisture, signal the aim of the treatments (absorbing and drying out, or balancing excessive moisture). Another ingredient “enacting” the aims of treatment (absorbing, drying and cooling) is found in the potsherd from the opening of an oven, since the oven and potsherd both stand for an object (container/vessel) that gets hot and cold again, in a way signalling the intended cooling of the patient's “hot” body state. Roasting of the drugs could likewise be understood as an action enacting the patient's hot state:

SpTU 4, No. 153 obv. 10–12, 14–15:

“Powder of *kanaktu*-aromatic and *šupuhru*-cedar, . . . you will always find (to be good) for damming up. . . .

*Kanaktu*-aromatic will *absorb*, *šupuhru*-cedar will dry (out). You (can also) roast resin of(?) *maštakal*-plant (and) sheep bone over the fire. You (can also) administer to her (lit. ‘give her’) the shell of an ostrich egg, *imbū tāmti*-mineral (and) powder of an old log, one (unit, i.e. the same amount of) each (ingredient) . . .

A new(?) pot (*dīqāru eššu*) or a porous potsherd (*hašbu šaharru*) from the opening of an oven (*utūnu*) is very good (as well): it *absorbs*, cools and dri[es out](?) . . .].

A sheep's eye (and) sheep's horn, which have been roasted on embers, are very good (as well). Their ashes . . . [. . .].”

The use of a porous potsherd is based on complex analogies. On the one hand, potsherds are associated with obstruction and thus play a role in therapies to stop irregular bleeding.<sup>161</sup> On the other hand, porous vessels have a cooling effect on their contents, which again points towards the idea of cooling of a haemorrhaging pregnant woman (i.e. a hot state) encountered in SpTU 4, No. 153.<sup>162</sup>

Ingredients of animal origin in Mesopotamian prescriptions to stop gynaecological bleeding are also interesting in connection with the notion of “signatures” and analogical reasoning. Among the popular ingredients occur shells (often pulverized), eggshells (of ostrich, dove, turtledove), horn (of gazelle, cow, goat, stag), excrement (of a *surāru*-lizard), and blood (of *hurrū*-bird, goat).<sup>163</sup> Some of the ingredients may indeed have been effective: shells, eggshells and animal horns contain as main component calcium carbonate, which in modern trials has been shown to have haemostatic properties that improve wound healing (He et al. 2021).<sup>164</sup>

Eggshells (like shells) are reported to have an astringent effect.<sup>165</sup> For example, in ancient Egyptian sources, ostrich eggshells are applied in the Papyrus Smith as an astringent to dry a skull wound on the forehead (Westendorf 1999, 720). Dioscorides ascribes an astringent effect to *chalkitis* (mineral calcium carbonate) and recommends it for discharges of blood from the womb (*De Materia Medica*, Book 5–115). Furthermore, he writes about fossilized oyster shells (*ostrakites lithos*) (Book 5–165):

“A teaspoonful (taken in a drink with wine) stops the menstrual flow. If anyone drinks two teaspoonfuls after the menstrual flow, it prevents conception.”

The use of deer horn to treat abnormal fluxes in women is also attested in ancient Greek sources. For example, in the Hippocratic text *Diseases of Women* 2 (83 (1), 90 (4)), a potion of incinerated deer horn mixed with barley flour and wine/water is recommended (Potter 2018, 411, 423). Similarly, Dioscorides in *De Materia Medica* 2–63 writes: “It is . . . good for women troubled with excessive [menstrual] discharge, given in some liquid suitable for that suffering.”

<sup>161</sup> For potsherds found standing upright on a street used in amulets and other treatments, see e.g. BAM 237 i 9'–16', ii 41'–44', iii 6–7, iv 23, iv 35 (text C.1.4); BM 40152 iii 1–5 (text C.1.8).

<sup>162</sup> For a parallel use of a sherd from an oven to decrease fever/heat of the head/skull, see e.g. BAM 3 i 12–14, with variant in BAM 480 i 8–9 // BAM 4: 5'–6' (CRANIUM Tablet 1, see Worthington 2005, 7, 16; Worthington 2006, 19, 27; Scurlock 2014a, 307, 319; Bácskay 2018, no. 12). In other examples the sherd as an ingredient stemming from a “hot container” (oven) is applied topically to cool another “container” (body part), see further BAM 3 iv 11 (Worthington 2006, 24, 31; Stol 2009, 39; Bácskay 2018, 105–106 No. 38).

<sup>163</sup> The use of animal blood in potions against female haemorrhage (e.g. K. 263+ obv. 8–10, rev. 2; BAM 235: 4–6; texts C.1.1 and C.1.5) could be seen as replacement for the blood loss, i.e. as a restorative treatment (based on the principle “like cures like”). In a similar fashion, bull's blood is given to drink in a prescription against bleeding from the rectum for a male patient (BAM 99: 30–32 // BAM 152 iii 11–12; Geller 2005a, No. 35).

<sup>164</sup> It is noteworthy that several of the ingredients to stop gynaecological bleeding are also recommended in texts dealing with renal and rectal diseases, such as ostrich eggshells, “donkey-vulva shell” (*bışṣūr atāni*), *ayyartu* (shell or coral), *yānibū*, for conditions such as calculus, stricture of the bladder and blood in the urine (Geller 2005a).

<sup>165</sup> Cf. Steinert 2012b, 83 n. 82. In addition to empirical knowledge, the use of eggshells to stop bleeding in pregnancy in Mesopotamian sources may have been bolstered by analogy and associations: eggshell surrounds and protects the bird foetus and, in the case of ostrich eggs, they are also quite thick and hard (vessels were made from them).

Moreover, shells may have been particularly popular in Mesopotamian remedies against female bleeding (including haemorrhage during pregnancy), since they were associated with the female genitals; the foetus is compared with the animal inside the shell in a first millennium BCE birth incantation.<sup>166</sup> The aquatic origin of shells (and therefore their assumed cooling properties?) may have been likewise significant for their use against a “hot” body state.

A remarkable ritual involving a treatment to stop loss of amniotic fluid (and to prevent miscarriage) found in a Late Babylonian text (BM 51246+; text A.2.7 lines 37’–40’) involves the “dog’s tongue-plant” (*lišān kalbi*). Its use for stopping the loss of amniotic fluid and preventing miscarriage in the present text is noteworthy. In other women’s healthcare texts, “dog’s tongue-plant” is known as a drug to speed up or ease difficult labour (Ú<sup>munus</sup>LA.RA.AH), suggesting that “dog’s tongue-plant” had abortifacient properties (see above). These properties seem contrary to its use to preserve pregnancy in BM 51246+. The application form required by the remedy in BM 51246+ may have involved external application of the plant’s root (unfortunately this information is lost), in contrast to texts recommending “dog’s tongue-plant” (and sometimes its root) to speed up delivery (where it is given in a potion). The association of the “dog’s tongue-plant” with Šamaš in BM 51246+ is well-suited, since the sun god played a crucial role as a protector of pregnant women and their foetuses and appears in several pregnancy- and birth-related incantations and prayers (see section 5). One may ask whether the root of the “dog’s tongue-plant” symbolized the foetus in the womb. Both the root and the foetus exist in the darkness (of the earth / womb); and another analogy between them is that both should only “see the sunlight” when the proper time has come (i.e. for being born and harvested, respectively; see text A.2.7 for discussion).

## 5 Practitioners Involved in Women’s Healthcare

The cuneiform textual sources concerned with healing have been linked with two professions that were either performed exclusively by men (i.e. the function of the *āšipu/mašmaššu* “conjuror; exorcist”) or were largely male occupations (i.e. the *asū* “physician”), although the prominence of female healing deities and birth goddesses in Mesopotamian cultures reflects a deep-rooted and long-standing connection of women with the realm of healing and midwifery.<sup>167</sup> This connection can be further supported by scattered textual evidence documenting the performance of these roles by women. Since there is a growing amount of historical evidence (e.g. from Graeco-Roman, Christian, Jewish backgrounds) for women as medical experts in and beyond the field of women’s healthcare (and occasionally as medical authors) whose knowledge left traces in the male-dominated medical literatures (Lehmhaus 2023, 61–75), this section rounds up the introduction by briefly reviewing the evidence for male and female expertise in the Mesopotamian women’s healthcare texts edited in this volume. Additional information on female professionals in the fields of healing and midwifery beyond these texts is summarised cursorily.<sup>168</sup>

The conjurer/exorcist (*āšipu/mašmaššu*) is undoubtedly the most prominent healing professional when it comes to attestations of conjurers as owners and copyists of women’s healthcare texts from the first millennium BCE, as the sources from the so-called “House of the incantation priest” at Assur (library N4) and from the libraries of the conjurers’ families at Late Babylonian Uruk show (see above). The texts owned by these scholarly healers included both tablets containing medical prescriptions as well as incantations and healing rituals (beside other genres such as literary and divinatory texts, astrology/astronomy), which underlines their broad qualifications as men of learning as well as practitioners.

<sup>166</sup> See Bergmann 2008, 52–54; Couto-Ferreira 2014, 310; Steinert 2017a, 323–326, 332–335. The connection is revealed in two commentaries (11N-T3 and UET 6/3, 897, see Chapter G). I quote the latter of these passages (rev. 2’–4’): “(The phrase) ‘let him (the sun god Šamaš) show the one inside the shell the light’ – it (the base text) said it in reference to the pregnant woman. <sup>na4</sup>PEŠ<sub>4</sub>(IŠKILA) (means) ‘shell’; secondly, (it means) ‘mother’, thirdly (it means) ‘pregnant woman’.”

<sup>167</sup> Both conjurers and physicians acted as specialists in the diagnosis and treatment of diseases affecting humans and animals, including male and female adults as well as children. Each of the two disciplines had traditional areas of expertise and was linked to different patron deities representing the respective craft. The *asū* was primarily an expert on drugs and their medical uses in remedies (*bultu*) whose knowledge included some surgical interventions (as is clear from the Laws of Hammurapi), while the conjurer or ritual specialist (*āšipu*) served basically as a mediator between the human and divine sphere who was able to identify and interpret any sign in the environment indicative of divine anger, as well any kind of illness, misfortune and evil, and to counter them with the help of incantations, rituals and medical healing procedures. For debates concerning the relationship between the disciplines of *āšipūtu* and *asūtu* and for discussion of their historical developments, see e.g. Attinger 2008, 71–77; Fales 2018; Geller 2010, 43–88; 2018; Jean 2006; Ritter 1965; Scurlock 1999; Sibbing-Plantholt 2022; Steinert 2018.

<sup>168</sup> For discussion, see e.g. Stol 2000, 171–192; 2016, 371–372, 375–381, 605–615; Sibbing-Plantholt 2022, 188–192, 217–218.

In contrast, male physicians (*asû*) are only rarely attested directly in the women's healthcare texts. Only a single colophon (N. 4001; text B.2.1) mentions a physician as the copyist/scribe of a text dealing with infertility and tests for pregnancy prognoses, saying that he copied the text "for his learning" (*ana lamādīšu*). This expression suggests that the scribe may have still been an apprentice in his craft but also shows that physicians acquired knowledge in the treatment of women's ailments. The colophon includes secrecy statements that strictly interdict to share this precious knowledge with outsiders to the craft or scholarly circles. Letters from physicians at the Neo-Assyrian royal court rarely refer to their treatment of female members of the court or royal family.<sup>169</sup> In SAA 16, No. 26, the prince Šamaš-mētu-uballīt writes to his father Esarhaddon about a sick court woman and requests a physician (*asû*) to come and examine (*amāru*) her.<sup>170</sup> In SAA 10, No. 316 (rev. 22–23), the chief physician Urad-Nanāya informs Esarhaddon that he sends him two plants which are good for a woman in childbirth (*ana sinništi ša tāl[itte] danqū*). Remarkable is a letter (unfortunately very fragmentary) by the medical expert Urad-Gula (SAA 10, No. 293), in which he reports about rituals being performed for a pregnant member of the court (whose name is not preserved).<sup>171</sup> Interestingly, this letter mentions that Urad-Gula brought the patient to the temple of Gula where she was attended to by women(?) who worship different divine avatars of Gula (lines 23'–26'; their exact function cannot be determined). The fragmentary passage also discusses a basket (*masabbu*) that was taken to the temple (presumably with offerings).

Attestations of female physicians ("<sup>munus</sup>a-zu<sub>(5)</sub>; *asātu/asûtu*) are limited to the third and second millennium BCE, with the latest evidence found in Hittite sources. Some of these professional healers are known to have worked for the royal courts (e.g. at Ebla, Mari) and received goods from the queen. Although it has been concluded that the female *asûs* were specialized in healthcare for women and have even been referred to as "gynaecologists", it is likely that they performed very much the same functions as male *asûs*, although their patients may often have been women (Sibbing-Plantholt 2022, 217–218). In one Old Babylonian attestation a female physician was listed together with a midwife (*šabsūtu*) (Stol 2016, 371). Female physicians are not found in first millennium BCE sources and never show up anywhere in the medical texts.

The midwife ("<sup>munus</sup>šà-zu lit. "the one who knows the inside", from which the Akkadian counterpart *šabsūtu* is derived) is the best-attested female professional associated with women's health in the Mesopotamian sources throughout the millennia, whose roles are also highlighted in numerous literary and mythological texts (often via their divine counterparts, the mother or birth goddesses).<sup>172</sup> Other terms and epithets associated with the midwife mark her as a wise (*erištu*) or experienced (*lamittu*) woman. In lexical texts, the profession of the midwife is listed with professions meaning "barber; shaver" (Akkadian *gallābu*), an association that may stem from the shared use of knives and cutting techniques in both professions, as well as from a perception of both professions as health-related occupations (cf. Stol 2000, 172; Sibbing-Plantholt 2022, 184–188, 189).

There are other terms for female occupations associated with midwifery, wet-nursing or childcare in cuneiform textual sources. These include the *qadištu* "holy woman" (Sumerian *nu-gig*), *kulmašītu* (Sum. *nu-bar*), *nadītu* lit. "uncultivated (childless) woman" (Sum. *lukur*), *ištarītu* "the woman of Ištar", *mušēniqtu* "wet-nurse" (Sum. *um-me, um-me-ga-lá*), and the *tārītu* "nursemaid" (Sum. *um-me-da*).<sup>173</sup> Of prominent interest here are the Sumerian terms *nu-gig* (lit. "one who is taboo, sacrosanct", corresponding to Akkadian *qadištu* "holy one") and *nu-bar* (lit. "one who is set aside"). Literary texts connect these female professions to specific goddesses, especially Inanna and Ninisina, who are said to perform the func-

<sup>169</sup> For the Middle Babylonian letters written by medical specialists mentioning treatments for sick female singers, see Waschow 1936; Sibbing-Plantholt 2014.

<sup>170</sup> Letters by the exorcists Adad-šumu-ušur and Marduk-šākin-šumi report about healing rituals that were performed for the queen mother Naqi'a (e.g. SAA 10, No. 200) and about her recovery from illness (SAA 10, No. 244).

<sup>171</sup> Urad-Gula who bears the title *asīpu* but is once designated as deputy of the chief physician and as *asû*, may in fact be two different individuals with the same name (Parpola 1983a, Vol. II, 470 Appendix O; PNA 3/2, 1402 no. 5-6). The letter SAA 10, No. 293 may imply that Urad-Gula had connections to the Gula temple, which could point to his profession as an *asû*.

<sup>172</sup> On mother and birth goddesses, see e.g. Jacobsen 1973; Krebernik 1993–1997; Stol 2000, 74–82, 109–118; Asher-Greve and Westenholz 2013; Rodin 2014; Steinert 2017b. On the healing goddesses (Gula, Ninisina, Ba'u) as midwives, see Böck 2014a, 30–34; Sibbing-Plantholt 2022, 48–50, 103–104, 130, 141–142. On midwifery in Mesopotamia, see e.g. Civil 2011, 281–284; Karahashi 2017; Stol 2000, 171–181; 2016, 375–381; Sibbing-Plantholt 2022, 188–192; 291–302; Steinkeller 2022. For midwives in the Hittite world, see Beckman 1993, 38–39.

<sup>173</sup> For these professions, see Bird 2019, 209–336; Civil 2011, 251, 281–284; Karahashi 2017; Stol 2000, 172–192; 2016, 375–381, 605–616; Steinert 2023, 245, 246–247; Steinkeller 2022, 21–32; Westenholz 1989, 250–260.

tion of the nu-gig among the gods (and therefore serve as patron deities of the human craft).<sup>174</sup> At the same time, these titles may mark the functions performed by these women euphemistically as connected to the liminal and potentially defiling realm of childbirth (associated with impure substances such as the parturient's blood).

Sumerian sources such as the Laws of Ur-Namma portray the nu-gig as a professional performing midwifery and wet-nursing (for a defined wage).<sup>175</sup> In the Sumerian myth *Enlil and Sud* (line 154), the function of the nu-gig is assigned to the mother goddess and is subsumed as “the function(s) of the nu-gig (nam-nu-gig), everything pertaining to women (níg-nam munus-e-ne) (which) is something that no one must see (lú igi nu-bar-re-dam)” (Civil 1983, 157; 2011, 282). The passage suggests that these women possessed specific knowledge linked to their craft that was guarded from men.<sup>176</sup> Reviewing the sources from the third and early second millennium BCE, Steinkeller (2022, 25–26) even defined the nu-gig as a professional “concerned with women's health in general, . . . comparable with the modern gynecologist, who provides care during pre-conception, pregnancy, childbirth and immediately after delivery but also deals with all of women's reproductive health issues, including menstruation and breast-related problems.”<sup>177</sup> Steinkeller suggests that in the early periods the services of the nu-gig were broader than those of the šà-zu “midwife” (with the latter operating specifically in the context of delivery) and that the activities of the nu-gig had an additional ritual/religious dimension.<sup>178</sup> However, the women's healthcare texts from later centuries suggest that the activities of the midwife were neither limited to the delivery, but that her advice was also sought in the context of treatments for fertility, during pregnancy and in the postpartum period (see below).<sup>179</sup>

Our image of the occupations of the *qadištu*, *kulmaštu* and *ištarītu* and their activities are unfortunately blurred and patchy, although they are mentioned in texts from the second to the first millennia BCE. It is clear, however, that these professionals were involved in both religious/cultic and secular activities and that the *qadištu*, *kulmaštu* and *ištarītu* were usually devoted or dedicated to a deity. The *qadištu* appears in texts from the second and first millennium BCE, where she is connected to midwifery and wet-nursing (against a fee), as well as to purifications, participation in exorcistic rites, cultic and musical performances (e.g. Westenholz 1989, 250–260; Macgregor 2012, 12–15; May 2022, 141–144). The reference in the *Atramhasis* myth to the “house of the *qadištu*” where the midwife assisted women giving birth may not correspond to reality, however. Thus, the *qadištu* is never mentioned in birth rituals, and no other textual source informs us that women in Mesopotamia gave birth at a place outside their home.<sup>180</sup>

<sup>174</sup> For the latest discussion, see Steinkeller 2022, 26–29. For Ninisina performing the office of the nu-gig, see the hymn *Ninisina A*, lines 64–81 (Römer 2001, 113; Civil 2011, 282; Böck 2014a, 30–31; ETCSL text 4.22.1; Steinkeller 2022, 26–27). This passage describes the nu-gig's competences linked to fertility, preserving pregnancy and midwifery: manipulations to assist delivery (directing the foetus downward, opening the mouth of the uterus), severing the umbilical cord and caring for the neonate (e.g. cleaning the breathing passage). In the myth *Enki and the World Order* 394–400, paraphernalia including the brick of birth and an umbilical cord-cutter used by the midwife (šà-zu) are assigned to the mother goddess Aruru/Nintur (ETCSL c.1.1.3; Stol 2000a, 111–112).

<sup>175</sup> Civil 2011, 245, 251 section E, §E2.

<sup>176</sup> Cf. Westenholz 1989, 250–260. Steinkeller (2022, 23–24, 26) surmises that the interdiction expressed here refers to the professional exclusivity of performing the nu-gig's functions and their guild-like organization. The nu-gig also operated in the context of sanctuaries called NÌGIN.GAR (nigar), localities linked exclusively with the cult of Inanna and Ninisina and metaphorically associated with the womb and foetus (Sjöberg 1969, 92–93; Stol 2000, 29; Steinkeller 2022, 29–31 for the etymology “(place where) the foetus/newborn are placed”). For the nu-gig/*qadištu* as wet-nurses, see Stol 2000, 186–187.

<sup>177</sup> Similarly, Civil (2011, 282): “The conclusion is that the *nugig* was a midwife, with duties not limited to the parturition but extending all through pregnancy, administering the physical preparations and care given to pregnant women in traditional societies: massages and manipulations presumed to place the fetus in a favorable position for birth, dilation of the cervix by insertion of certain plants or stones, etc.”

<sup>178</sup> The midwife and the nu-gig/*qadištu* are mentioned side by side in a few sources from the second millennium (Stol 2000, 173), e.g. in *Atramhasis* (Lambert and Millard 1969, 62: 290), which hints at overlapping professional profiles and occasional collaboration of both professionals. Steinkeller (2022, 24) assumes the profession of the midwife was less prestigious and her position subordinate to the nu-gig. In contrast, Stol (2000, 187) assumes that the *qadištu* in Old Babylonian times did not have a high social status; she often worked as a paid wet-nurse for income.

<sup>179</sup> Note in this connection the negative depiction of the female demon *Lamaštu* as the “anti-midwife”, from which the essential activities of a real midwife can be gleaned: “counting the months”, “opening” the ‘door’ (of the womb) during delivery, and “wiping clean” (*kuppuru*) the baby (Farber 2014, 260, 282–283 OB<sub>3</sub> lines 3–6): “Although not a physician (*asātu*), she puts on bandages, although not a midwife (*tabsāt*), she wipes the baby clean. She keeps counting the months of the pregnant women, constantly blocking the ‘door’ of the women about to give birth (*wālidātum*)”.

<sup>180</sup> Lambert and Millard 1969, 62–63 I 290, with Macgregor 2012, 13.

Interestingly, the nu-gig/*qadištu* and nu-bar/*kulmaštu* are also associated with infanticide or abortion in a few literary texts, e.g. in the *Curse over Agade* 241.<sup>181</sup> It is not entirely clear whether this passage refers to infanticide or to abortion of premature foetuses, but the line is formulated as a curse negating the usual pronatalist role of the nu-gig and the nu-bar. The connection between these and other female occupations and abortion also seems to be alluded to in a first millennium BCE incantation to Šamaš (SpTU 3, No. 67 iii 9–12). Here, *qadištu* and *kulmaštu* appear together with other female titles: “It is in your power, o Šamaš, to call the names of the foetuses (*kūbu*) of the *nadītu*, the *qadištu*, the *kulmaštu*, the *ištarītu* of Anu, the little ones who never knew their own names, who (never) saw the sunlight!”<sup>182</sup>

It is difficult to draw definite conclusions from such literary passages about these female occupations in the first millennium BCE. Passages such as the Šamaš incantation quoted above may allude to sexual taboos that women like the *nadītu* had to observe, while also pointing to a “devaluation” of old titles and changes in the roles of such female professions in the later periods of Mesopotamian history (Stol 2016, 426). In Old Babylonian times, the *nadītu*, *qadištu* and *kulmaštu* were groups of women dedicated by their parents to a god or temple; their rights of inheritance, possibilities of marrying and providing offspring for their husbands (through a secondary wife or female slave) are detailed in legal texts.<sup>183</sup> The *nadītus* were dedicated to a deity (e.g. Šamaš at Sippar; Marduk at Babylon) and were generally not allowed to bear children. Some *nadītus* were allowed to marry, while others led a celibate, pious life in a “convent” or “cloister” (*gagū*) linked to temples; both cloistered and married *nadītus* could adopt children (Stol 2016, 584–604).

The *qadištu*, although devoted to a deity (usually Adad), could marry and have children and is mentioned in connection with wet-nursing (for a fee), especially in Old Babylonian sources. The participation of the *qadištu* in cultic and other ritual activities is documented in Middle and Neo-Assyrian texts, e.g. in a ritual in the Adad temple at Assur.<sup>184</sup> A Neo-Assyrian letter to Esarhaddon by his chief exorcist Marduk-šakin-šumi specifies that a *qadištu* should perform exorcistic rituals for the male royal offspring (SAA 10, No. 246).<sup>185</sup> In another late text (a hymn praising the inhabitants of Babylon), the *qadištu* is linked with purifications. Here she appears beside the *nadītu* and the *entu*-priestess as classes of pious, respectful women who are characterised in more favourable terms as beneficial and knowledgeable. Unusually, the *nadītu* is linked to midwifery or the care for pregnant women in this text:

“Women who have learned insight at their work (*sinnišātu ša ina šiprišina tašimta aħzū*): the *entu*-votaries (NIN.DINGIR.RA) who are faithful(?) to their husbands, the *nadītu*-women who keep the womb healthy through (their) wisdom (*nadāte ša ina nēmeqi uballaṭā rēmu*), the *qadištu*-women who [per]form purifications with water. They respect the taboo, they observe the interdict, they pray . . . They are reverent, observant, minding the good. Daughters of the gods . . .” (KAR 321: 6–9; Lambert 1960, pl. 36; Foster 1996, 756; Stol 2000, 172)

While this passage contrasts with the Šamaš incantation quoted above, the negative image of these female functions associated with knowledge about matters of ritual and women's reproductive health is also communicated in other first millennium BCE learned or literary texts. Thus, the *ištarītu*, *qadištu*, *nadītu* and *kulmaštu* are depicted as witches performing sorcery (*Maqlū* III 40–55) and are mentioned together with the prostitute (*harimtu*) in negative terms as dubious marriage partners.<sup>186</sup> As Sibbing-Plantholt (2022, 191–192, 297–302) underlines, these negative images may point to competition between male, learned healers (especially *āšipus*) and female lay healers who often were experts in women's

<sup>181</sup> Cooper 1983, 240–241 (lines 244–245); ETCSL text 2.1.5; Attinger 2007, 13 with n. 122–123; Stol 2016, 421: “May the prostitute hang herself in the door of her drinking house, may your mother the nu-gig and your mother the nu-bar kill their children.”

<sup>182</sup> The foetuses (*kūbu*) of the *nadītus* and *qadištus* are also invoked in incantations (Farber 2014, 266, 294–295 “Ug” III 8', “ND” 11'-12'; 328); one passage (SpTU 1, No. 44: 67) claims that the child of a *nadītu* does not thrive, followed by a reference to an aborted foetus (*nīd libbi*) that will never suckle its mother's breast. Little is known about the function of the nu-bar/*kulmaštu*. The nu-bar is mentioned side by side with the nu-gig, see e.g. in an Ur III-period incantation against the demon Samana (Nougayrol 1949, pl. III–IV lines 14–15; Finkel 1998, 72–76 No. 1; Stol 2016, 438; Beck 2015, 35).

<sup>183</sup> Stol 2016, 422; see e.g. Laws of Hammurapi §§144–146, 181–182; Laws of Lipit-Ištar §22 (Roth 1997, 30, 198, 118). In Old Babylonian times, the *kulmaštu* is found among other groups of dedicated women, and in a few sources, she is associated with breastfeeding (Stol 2016, 605–607, 615–616). The exact occupation of the *ištarītu* in the cult remains obscure but her designation implies a link to the goddess Ištar; she may have served as wet-nurse (cf. Stol 2016, 425, 612). Women with the title *ištarītu* are occasionally mentioned beside the midwife or the *qadištu* in second millennium BCE texts, which may indicate that they could have a similar role.

<sup>184</sup> Menzel 1989, II T2–T4 (KAR 154); Westenholz 1989, 254; Macgregor 2012, 13. See also May 2022, 142 for another Neo-Assyrian text describing role of the *qadištu* in the context of purifications during the New Years Festival.

<sup>185</sup> See May 2022, 143 for discussion.

<sup>186</sup> For texts that give the *ištarītu*, *nadītu* and *kulmaštu* a bad reputation of being promiscuous and witches performing sorcery, see Stol 2016, 604, 611–612, 615–616; Schwemer 2007a, 76–77; MacGregor 2012, 10–12.

health matters and presumably provided services for the lower strata of society to which they themselves often belonged. One may see here a desire to marginalize such female professionals and their knowledge, apparently perceived as a threat by male experts.<sup>187</sup>

The reviewed sources leave us with a contradictory and patchy image of female occupations in the realm of midwifery and lay healing, in terms of their specific activities, social esteem and evaluations. Thus, over the course of three millennia we need to reckon with changes and differences in the meanings of such terms (as *nadītu*, *qadištu*) and with changes in social roles, status and settings associated with these women. Furthermore, several of the key sources quoted for these professionals are literary texts whose historical accuracy may be questioned, and which may reflect specific (often male-biased) perspectives. Nonetheless, the overview of sources has shown that women in ancient Mesopotamia could potentially turn to several different female lay practitioners in matters of reproduction and female health for their services, beside the male healing experts *āšipu* and *asû*.

Female healers involved in women's healthcare did not write down their knowledge and may often have been illiterate, as far as we know (cf. May 2018b; 2022, 141, 143). There are occasional remarks in women's healthcare texts that mark certain prescriptions or procedures as oral lore (*šūt/ša pî*; *šum'uttu*).<sup>188</sup> Unfortunately, the origin of this oral lore is never specified, although passages may at times record household remedies stemming from the sphere of folk healing practices, which would prominently have been the realm of female lay healers and midwives (e.g. Stol 2007b, 1). Intriguing, however, are first millennium BCE women's healthcare texts that mention the midwife's presence and collaboration with the male healer in treating female patients.<sup>189</sup> These references draw attention to the midwife's intimate knowledge of the female body and her practical expertise and knowledge of remedies. For example, in the fragment UET 7, No. 123 (text B.2.2), which contains tests for pregnancy prognoses and treatments to promote female fertility, the midwife had to examine (*hâtu*) the patient, presumably to check the effect of an ongoing treatment procedure:

*ša qerbîssâ(!) innassâhu u šabsûtu iħâtâšu maltaktâšu* <sup>22</sup> *kî irrû kî lâ irrû . . .*

“(When) that which is (in) her womb is removed, then the midwife should examine her. (This is) the test for her(?) (or: her test?) (to see) <sup>22</sup> whether she will conceive or whether she will not conceive . . .”

Unfortunately, the details of this examination or the reason why the midwife was required to do it (and not the male healer), remain shadowy. Was a manual examination of the patient's womb required, and this close-up inspection was not appropriate or allowed to be carried out by a male healer? Or does it imply specific insider knowledge that only the midwife possessed? The following sentence is likewise ambiguous: Does “*her test*” (*maltaktâšu*) refer to the patient (i.e. the test for her?), or could it refer to a test used and communicated (to the male healer) by the midwife, which is then reported in the following lines of the text?

This text passage also throws up the unresolved question as to whether male healers had unrestricted direct access to female patients' bodies, performed physical examinations of women's private parts or indeed applied remedies (such as tampons) in these body zones with the same freedom as they would when treating male patients (cf. Heeßel 2006: 12–13). Unfortunately, we are left in the dark about such potential restrictions (e.g. the presence of other persons during male healers' treatment of female patients (such as female household members or the woman's husband) may perhaps have been silently assumed). It is also unknown whether the male healer would regularly collaborate with a midwife. While male healers doubtlessly had anatomical knowledge of women's bodies, the fact that some instructions in women's healthcare texts for applying remedies (such as tampons) are formulated in the third person rather than the second person singular, may suggest that patients may have possessed some (limited) agency to apply these remedies by themselves. In contrast to the Hippocratic or Rabbinic texts, Mesopotamian women's healthcare texts never explicitly mention or require the (manual) self-examination by the patient, and they refer to the patients' own experience or knowledge of bodily processes only indirectly or laconically.

<sup>187</sup> For similar strategies of othering in Graeco-Roman medical authors who attribute negative practices (such as abortion) or repulsive superstitious remedies to prostitutes, see e.g. Flemming 2000, 40–42; 2007, 273–275; Lehmhaus 2023, 68; Steinert 2023, 277, 290.

<sup>188</sup> See e.g. BM 38624+ iv 3' (text A.2.1); BM 50700 obv. 11 (text A.2.3); SpTU 5, No. 253: 3' (text E.2.6); BM 45736 iv 12 (text A.2.5); BAM 240: 16' (text D.2.1) and the discussion above.

<sup>189</sup> The midwife is also mentioned in birth incantations both from the second and first millennium BCE (e.g. BAM 248 iii 35 // (text D.1.1 lines 160): “May the midwife not be kept (waiting), may the pregnant woman be all right!” (*šabsûtu ay ikkali erîtu lišer*).

A second text mentioning the midwife is SpTU 4, No. 153 obv. 23–26 (text D.1.11) from the exorcists' library of the descendants of Ekur-zakir, this time in a birth context. Here, the midwife's examination of the patient is required to confirm the progress of labour and the appropriate moment for administering a specific remedy to speed up the delivery:

“You let her walk around. Her baby will start to approach (come out) and [when(?)] the midwife examines (the woman), she will tell you, thus: “Birth is near!” (*šabsūtu tammaru-ma iqabbâkka umma alâdu qerub*) Afterwards you administer to her (another?) suppository of *hurru*-bird excrement (and) cumin. The *hurru*-bird excrement and cumin should dilate (lit. “open”) (her) considerably. You (also) administer (it) to her when [she has] a lot of pain(?) (lit. “is in difficulty”). Should she let her (amniotic) fluid flow out completely, her baby will die.”

Further evidence for the activities of the midwife in the context of delivery is found in two Neo-Assyrian texts from Nineveh. K. 11530 (text D.1.5) refers to actions of neonate care performed by the midwife: she “wipes off” (*kuppuru*) the newborn and rubs (*muššu'u*) “his chest” with oil, puts her fingers into “his mouth”, so that *mucus* (*nîšu*) is discharged (for unhindered breathing). The fragment Sm. 157 + 1134 (text D.1.6) appears to give instructions for the midwife's practice during delivery and in the postpartum period. In this unfortunately very fragmentary text, the midwife seems to be the key expert able to deal with dangerous complications in childbirth and to perform obstetric interventions. The texts mentioning the midwife within women's healthcare texts do not evoke the impression that the midwife acted merely in an assistant role to the male healer (cf. Sibbing-Plantholt 2022, 300–301). The discussed examples rather suggest a division of labour between male healer and midwife and may underline the indispensable roles and expertise of the midwife in the context of delivery, in particular.<sup>190</sup> It is possible that male healers absorbed or adopted some practices and techniques of midwives, as mentioned above. This may also apply to the practice of massage (*muššu'u*) attested in women's healthcare texts in the context of delivery (beside anointing the woman in labour), since this technique is also associated with midwives in other cultures.<sup>191</sup>

The multitude of male and female professionals involved in women's healthcare in Mesopotamia is also reflected in the appearance of the different patron deities associated with healing professions, in addition to other deities connected to women and to reproduction, in the women's healthcare texts themselves.

The gods Marduk/Asalluhi and Enki/Ea as the divine patrons of the conjurer (*âšipu*) naturally play a prominent role in the women's healthcare texts. Both deities feature in incantations for women that use the classic format of the Marduk-Ea dialogue, for example in BM 97093 (text II.1.1), BAM 244: 41ff. (text B.1.1); BM 34208 (text D.1.1) and in BAM 248 (and dupl.), the Neo-Assyrian Birth Compendium (text D.1.1). The god of magic *par excellence* Marduk/Asalluhi is clearly the most important deity in the spells of the Neo-Assyrian Birth Compendium, while the mother goddess and other birth goddesses (more prominent in earlier texts) even appear in a subordinate role. Marduk/Asalluhi clearly seems to have absorbed traditional roles of the mother/birth goddesses, since he is called or calls himself “(male) midwife” (*ŠÀ.ZU, šabsû*) in at least two incantations (D.1.1 lines 194–195, 197–198). Ea and Asalluhi occur together in this role (e.g. “opening the path” for the baby) already in Ur III-period and Old Babylonian birth incantations (see e.g. UM 29-15-367 // VS 17, 33 (van Dijk 1975; Cunningham 1997, 69–75); BM 97093 (text II.1.1); BM 115745, text II.1.2).

Two other significant male deities in the women's healthcare texts are the sun god (Utu/Šamaš) and the moon god Nanna(r)/Sîn. The moon god's links to fertility, pregnancy and birth can be traced back at least to Old Babylonian times and are underlined in birth incantations (see e.g. text D.1.1) and in rituals for female fertility and offspring (N. 4001 (text B.2.1) // BM 51246+ (A.2.7); AO 4425A+B (text B.2.6), where Sîn is invoked via prayers and offerings, sometimes together with the sun god).<sup>192</sup> Sîn and Šamaš also play the leading role in a group of rituals to postpone an ill-omened birth in the month Nisannu (KAR 223 //, text D.3.1). The moon god as luminary is associated with the month (and therefore a regulator of female bodies during pregnancy), but also with cows and boats, two important motifs representing the woman in labour/pregnancy. The sun god as divine judge appears in many different contexts and rituals within women's healthcare texts, in which his intervention and help are requested. Notably, Utu/Šamaš as a god who oversees the realms of heaven, earth and netherworld, is intimately linked to taking care of human foetuses during pregnancy and delivery and to determining human destiny. Several birth incantations from the second and first millennium BCE invoke the sun god to set the baby free from the womb and to show it the daylight (Polonsky 2006; Wasserman and Zomer 2022, No. 8, 12; BAM 248 obv. ii 23

<sup>190</sup> Rare images depicting scenes of delivery from Mesopotamia show both male and female birth attendants, but these date almost exclusively to the third and early second millennium BCE (Battini 2006, 6 fig. 6; 14 fig. 19; Otto 2016, 135–142).

<sup>191</sup> For massage as an important cross-cultural element in traditional birth practises, see Kuntner 1994.

<sup>192</sup> See also Stol 2000, 61–62, 63–64, 66–68, 71; Häntinen 2021.

(text D.1.1)). A bilingual prayer (K. 3025 // K. 879; text D.1.8) seeks Šamaš's help during a delivery that is hindered by the machinations of sorcery. In two rituals, Šamaš is approached as the guardian of healing plants ("dog's tongue-plant" and "shepherd's staff-plant") that are used to stop bleeding during pregnancy (BM 40152 (text C.1.8); BM 51246+ (text A.2.7). Together with Ea and Asalluhi, the sun god receives offerings and is also addressed in a ritual for a woman affected by an ominous eclipse which resembles Namburbi rituals (BM 47801; text E.2.3).

Unsurprisingly, female deities are well represented in women's healthcare texts in their functions as mother and birth goddesses as well as goddesses of healing, all of whom could perform the function of a divine midwife (Stol 2000, 74–83).<sup>193</sup>

The most important healing goddesses performing midwifery are Gula, Ninisina and Nintinuga. Another goddess syncretised with Gula and taking on her roles as female healer is Ninkarrak, originally an oath deity.<sup>194</sup> Ninkarrak appears (interchangeable with Gula) in texts concerned with rituals dealing with repeated infant death and miscarriages, in which Ninkarrak and Gula are identified as divine agents responsible for the problem (SpTU 3, No. 84 (text C.3.4); BM 42327+ (text C.3.3); SpTU 5, No. 248 (text C.3.10 lines 62–67)). Gula is mentioned again in a similar context in KAR 247 (text C.3.6, line 41''). One spell to stop gynaecological bleeding is specifically attributed to Gula in BM 40152 ii 14' (text C.1.8), and she is mentioned together with Bēlet-ilī, Ištar and Šamaš in another incantation for this purpose (BAM 237; text C.1.4 line 53''); she thus is linked with powers to interrupt as well as to preserve pregnancy and bring it to full term. More common in the texts is the instruction to leave medicine outside overnight before Gula or the Goat Star (Lyra) equated with her (e.g. STT 98 obv. 8' (text A.1.1)). While Gula is encountered as divine midwife cutting the umbilical cord and determining the child's destiny in birth incantations as early as the Ur III-period (UM 29-15-367 iii 13–14 // VS 17, 33: 25–26; van Dijk 1975; Cunnigham 1997, 69–75), other avatars of Gula occur in this role in later texts, especially Ninisina. Thus, Ninisina's assigned role as divine nu-gig (midwife) and her competences are specified in the Sumerian hymn *Ninisina A* (from the Old Babylonian period; Civil 2011, 282; Steinert 2022, 26–27; Sibbing-Plantholt 2022, 130), and she still appears in this role together with Nintinuga in a bilingual birth incantation from the first millennium BCE (BM 34208, text D.1.9).

The function of the midwife in a broader context of creating human beings is also performed by mother and birth goddesses such as Nintur, Aruru, Bēlet-ilī, Mami, Ninhursaḡa and Nimah (Stol 2000, 74–83; Asher-Greve and Westenholz 2013; Steinert 2017b); several of these goddesses feature in birth incantations and in other spells within the women's healthcare texts. In birth incantations, delivery is sometimes imagined as taking place in the temple of the mother goddess (e.g. BM 34208 (text D.1.9); K. 11530 (text D.1.8)). Bēlet-ilī is invoked in her capacity as "mistress of the womb" (*bēlet rēmi*) in the Neo-Assyrian Birth Compendium BAM 248 (text D.1.1 lines 48–52), but she is also referred to as the one who created human beings' blood (alluding to myths in which the mother goddess creates the first human beings together with Enki/ Ea) in an incantation to stop bleeding during pregnancy (BAM 237; text C.1.4 line 49'). The titles "creatrix of humankind" (*bāniat awīlūtim*) as well as *asūtum* "female physician" are given to Bēlet-ilī and Ninhursaḡa in Old Babylonian birth incantations, where they act as midwife (CUSAS 32, 26a: 8'–9'; CUSAS 32, 28a: 13–14; YOS 11, No. 86: 18; Wasserman and Zomer 2022, No. 6, 7, 14). A special link to human offspring is drawn with Nimah in rituals like SpTU 3, No. 84 (text C.3.4) and KAR 247 // (text C.3.6), performed against cases of repeated miscarriage, in which her powers over foetal growth and pregnancy are invoked (which is reminiscent of the goddess' creating several abnormal foetuses in the Sumerian myth *Enki and Ninmah*).

Although the Venus goddess Inanna/Ištar was not a birth or mother goddess, she was intimately linked with sexuality, fecundity, human reproduction and womanhood, which explains her repeated appearance in the corpus of texts edited in this volume. In a couple of texts, she takes on the roles of a midwife, wet-nurse or protectress (especially of rulers) and her help and protection was sought by women in matters of reproduction and pregnancy.<sup>195</sup> For example, among the rituals and incantations against bleeding during pregnancy in BAM 237(+) (text C.1.4), Ištar is invoked through incantations and *šigū*-prayers uttered by the patient. Relatedly, the constellation "Wagon" (Ursa Major) associated with Venus/

<sup>193</sup> The goddess Ningirim(a), a deity of purification and incantations, is further attested occasionally in expressions attributing spells recited for women (e.g. in labour) to her, often together with Ea, Asalluhi, Gula and Damu (e.g. Rudik 2011, 318 FSB 56 (D); STT 241 (text C.3.1: 27); LKA 9 // CUNES 52-15-029 (text C.3.5: 29'); SpTU 5, No. 248 (text C.3.10: 18).

<sup>194</sup> For detailed discussion of these goddesses and their relationship, see Sibbing-Plantholt 2022.

<sup>195</sup> For Inanna as nu-gig, which is linked to midwifery and nursing, see Zgoll 1997 and above. For more on Inanna and Ištar, see e.g. Groneberg 1997; Lapinkivi 2004; Leick 1994, 80–169; Matsushima 2014; Parpola 1997, xxi–xlviii; Stol 2000, 269 *passim*; 2016, 405–409, 419–435, 638–661. For women's prayers to Ištar requesting offspring, see Zgoll 2003, "Ištar 4" and "Ištar 23". For links of Inanna/Ištar to menstruation, menarche and female sexual organs, see also Steinert 2017b, 212–214; 2023, 247 n. 50.

Ištar is addressed or receives offerings in protective rituals against miscarriage (SpTU 3, No. 84 (text C.3.4); BM 48030 (text C.3.8)). A manifestation of Ištar venerated in Assyria (Nimrud), Šarrat-kidmuri (Queen of the Kidmuru temple), is invoked in a similar context in an incantation in STT 241 (text C.3.1, line 20), together with the god Lillu (a son of the mother goddess).<sup>196</sup> A birth incantation on a fragment from Nineveh (K. 11530, text D.1.5) mentions the goddess Bēlet-ēkalli (“Lady of the Palace”), who belongs to the circle of Inanna/Ištar, in association with a cow pen and birthing among cows. Interestingly, a few older Sumerian birth incantations equate or identify the women in labour with the goddesses Aruru, Nintur, Inanna and Ninḫursaḡa, underlining their motherly nature or their connection with creating offspring.<sup>197</sup>

Last but not least, a special feature of incantations for women (especially of birth incantations) is the invocation of Elamite deities (Kiririša, Napiriša, Nahhunte, Narunde) acting as intermediaries or messengers (of Sîn or Marduk) in two incantations of the Neo-Assyrian Birth Compendium (text D.1.1 lines 40–47, 163–172; see also A.3461 (text A.1.2)), which seems to be a reflex of an old tradition of birth incantations in the Elamite language (attested on Old Babylonian tablets) which feature the same deities (Krebernik 2018, 31).

## 6 Directions for Future Research

In conclusion to this overview of Mesopotamian women’s healthcare, it is hoped that the present volume of text editions will contribute to the study of cuneiform healing texts as well as to the history of ancient medicine concerned with women more generally. Due to constraints of feasibility, this work necessarily had to focus on the reconstruction and decipherment of textual sources and on philological analyses and interpretations of the immediate contents of the texts under study. Due to the fragmentary state of the source texts, numerous textual difficulties could not be resolved satisfactorily, leaving us with ambiguities and several possible interpretations or readings. These difficulties are addressed extensively in the philological notes of the text editions, and alternative views proposed in previous studies or suggested to me through personal communications with colleagues are pointed out. Hopefully, some of the gaps and uncertainties in our knowledge can be filled in the future, through the discovery of new text sources.

Many issues and broader questions could only be touched on briefly and could not be explored in detail. It is hoped nonetheless that the sources presented here will be useful for future research into women’s healthcare in ancient Mesopotamia and beyond. Much work still needs to be done in several directions. For example, the interrelations or specificities of Mesopotamian women’s healthcare texts vis-à-vis other areas of cuneiform medical texts as well as the question of gender-specific medicine(s) deserve more attention in the future. A second promising area of research would be a more systematic exploration of *materia medica* in women’s healthcare texts and its uses in comparison to applications beyond conditions specific to the female body.

Undoubtedly, a third important avenue for further exploration is offered by comparisons, both synchronic and diachronic, between Mesopotamian women’s healthcare texts and other medical traditions in the ancient Near East and Mediterranean world. Thus, cross-cultural similarities (at times substantial ones) as well as differences in concepts of the female body and in the ways of treating its conditions and their development in the *longue durée* promise to be a vast and fruitful area for research and cross-disciplinary collaboration (see e.g. Stol 2000; Couto-Ferreira and Verderame 2018; Lehmhaus 2023). This should include further explorations of cross-cultural transfers of medical lore on women’s health in the ancient world, of which previous scholarly work in this direction has offered glimpses (e.g. Geller 2004, 34–36; Geller 2021).

The present study of Mesopotamian women’s healthcare has highlighted several close similarities with Hippocratic views of the female body and treatments for specific conditions such as infertility and its causes (see Chapter B; Steinert 2020; 2021a for discussion). Especially Late Babylonian texts which are roughly contemporary with Hippocratic medicine raise the question of cross-cultural transfers of knowledge. For example, through the texts edited here it has become clear that notions suggesting thinking in correspondences with the qualities hot, cold, wet and dry, which is one of the most characteristic elements of Greco-Roman medicine (including Hippocratic gynaecological works), also appear to play a considerable role in first millennium BCE Mesopotamian women’s healthcare. This can be seen most clearly in the notion of blood and bleeding as hot (and wet) encountered in several cuneiform medical texts edited in this volume. Relatedly,

<sup>196</sup> Meinhold 2009, 110.

<sup>197</sup> See e.g. BM 97093: 1–4 (text II.1.1); E 47.190: 1–3 (G. Farber 1984, *JNES* 43, 313ff.); AUAM 73.1425 v 4–5 (Rudik 2011, 327–331 FSB 58).

notions of heating, cooling, drying and moistening can be seen to play a key role in Mesopotamian treatments for women and their use of signature ingredients, for example in remedies for stopping or inducing the flow of blood, but also in prescriptions against fevers. Should such similarities be seen as independent or as interconnected phenomena and developments? Other, more specific elements encountered in Late Babylonian texts edited here raise questions about possible borrowings or adaptations of medical terms and concepts during this period, such as the occurrence of the term *ummu šalšu* “tertian fever” not previously known from Babylonian texts but perhaps a calque translation of the corresponding Greek term *tritaios pyretos* (see text A.2.6). Another aspect of Late Babylonian medical texts highlighted by examples edited in this volume and in need of further study is the increasing use of new and rare technical terms (as well as names of ingredients) that may stem from Aramaic or Greek.

A final note on the presentation of the text editions in this work, which adopts the basic format and structure applied in the volumes of CMAwR 1–3 (Abusch and Schwemer 2011; 2016; Abusch et al. 2020). Thus, each text is introduced in a brief overview of the manuscript(s) and their contents in a “synopsis”, followed by a (score) transliteration, a bound transcription with translation, and philological notes. The Akkadian transcriptions attempt to capture variant (e.g. dialectal) forms or aberrant spellings gleaned from syllabic renderings, without strictly seeking to harmonize morphological or other grammatical variations. For example, the singular accusative case ending *-a* is added in the case of nouns written logographically to assist understanding of syntax, although most syllabic spellings in first millennium BCE texts do not differentiate nominative and accusative anymore or mark case endings in a haphazard manner. No attempt was made to render Sumerian texts in normalized, bound transcriptions.

#### **Addendum:**

One recently identified text belonging to the corpus of first millennium BCE women's healthcare texts that could not be included in this volume is Ashm. 1971-405 (courtesy of H. Stadhouders), a Neo-Babylonian fragment with simple prescriptions resembling remedies and ingredients to stop bleeding and related conditions in BAM 237 (text C.1.4). A transliteration is available via the website of the electronic Babylonian Library project (<https://www.ebl.badw.de/library/Ashm-1971.405>).