

Traditional herbal remedies used by South African women for gynaecological complaints

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Abstract

Traditional remedies are part of the cultural and religious life of the African people. In this manuscript the nature and range of traditional remedies used for female complaints in relation to gynaecological conditions and disorders is reviewed. A total of 156 medicinal plant species are documented as being used for gynaecological complaints in South Africa. These are presented in a table with the local name, part of the plant used and specific gynaecological treatment. Medicinal plant species which are potentially toxic are noted as are the compounds responsible for the toxicity and the feature(s) of poisoning. Traditional remedies used in South Africa for the treatment of gynaecological problems are compared to those used elsewhere in the world. This manuscript indicates that a wide spectrum of herbal traditional remedies are used to regulate the menstrual cycle, enhance fertility and as either abortifacients or antiabortifacients.

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1. Introduction

The use of herbal remedies is becoming increasingly popular all over the world. It is estimated that approximately 80% of the South African population use a traditional remedy at some stage in their life (Hutchings, 1989; Brandt and Muller, 1995). Traditional remedies are part of the cultural and religious life of the African people. Furthermore, this broad use of traditional medicine is attributable to its accessibility and affordability.

South Africa has a huge diversity of tribes which is reflected in the systems of medicine practised (Van Wyk et al., 1997). Traditional healers are most commonly known by the Zulu people as *inyangas* or herbalists and *isangomas* or diviners, however, the distinction between the two has become blurred, with both using herbal medication (Van Wyk et al., 1997). Practitioners in other groups are known as *ixwele* and *amaqira* (Xhosa), *nqaka* (Sotho) and *nanga*, *mungome* or *maine* (Vhavenda) (Mabogo, 1990; Van Wyk et al., 1997). Most elderly folk in rural areas have knowledge of herbal lore which they apply (mainly using plants in the vicinity), moreover, there are also faith healers who treat gynaecological and other health problems. In urban areas remedies are purchased at *muti* markets or shops. The

traditional medical practitioner pays special attention to the use of herbs in treating various diseases and relies on symptomatic diagnoses of disease (Mabogo, 1990). Some practitioners specialise in for example children's diseases or in women's fertility problems. The part of the plant used varies from one species to another, from practitioner to practitioner and depends on the nature and state of the disease (Mabogo, 1990).

A substantial number of South African women seek treatment from traditional healers for a variety of complications and disorders associated with the female reproductive and genital organs. This manuscript is an ethnobotanical literature survey of traditional herbal remedies used to treat gynaecological problems and disorders in South Africa.

2. Methodology

Details of plants used for the treatment of gynaecological disorders of women were obtained from published books and monographs. Traditional remedies described as being used for the following were noted: abortion, to prevent abortion (antiabortifacient), contraception, breast and uterine cancer, menstruation: irregular menstruation, painful menstruation (dysmenorrhoea), excessive or prolonged uterine bleeding (menorrhagia), absence of menstruation (amenorrhoea) and/or infertility (sterility). Plants used in the absence

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of menstruation, i.e. to renew or stimulate menstruation are also referred to as emmenagogues (menstrual regulator).

The potential toxicity of the plants used as traditional remedies, the toxic compounds and feature of poisoning were obtained from published books.

3. Results

Based on the literature review, 156 plant species distributed in 73 plant families are documented as being used by traditional healers in South Africa to treat gynaecological conditions and disorders. The plant species are presented in Table 1 in alphabetical order by family name, as are the species within each family. Vernacular names are supplied for most of the species in Zulu, Xhosa or Vhavenda. English names, where known, are provided.

Many plant species are used to treat more than one gynaecological complaint. The majority of species are used to treat infertility (90 species). Eighteen plants are used as abortifacients, seven as antiabortifacients and eight as contraceptives. Only one species was identified for treatment of cancer of the breast and uterus as well as for menopausal complaints. Menstrual disorders; amenorrhoea (15 species), dysmenorrhoea (44 species), menorrhagia (29 species) and irregular menstruation (4 species) are treated with a variety of plants.

Table 2 lists the plants which are known to be potentially toxic. The toxic compounds as well as the features of poisoning are included in the table.

4. Discussion

In South Africa the majority of plants are used to enhance fertility (58). Fertility is a dominant theme in the culture of black South Africans as it ensures preservation and propagation of the tribe (Veale et al., 1992). The latter may be the reason for the vast number of plants used to treat infertility. It is estimated that the prevalence rate of infertility in Africa lies between 30 and 50% in some areas (Belsey, 1976). A large family is regarded as insurance against hunger in old age (Krige, 1957). Barrenness is regarded as a disgrace, as procreation is expected to follow marriage (Katsoulis, 2000). A literature review compiled by Veale et al. (1992) revealed that 57 plant species are used during pregnancy and childbirth. Extracts of *Agapanthus africanus*, *Pentanasia prunelloides*, *Rhoicissus tridentata* and *Gunnera perpensa*, which are traditional remedies used during pregnancy and childbirth, have shown *A. africanus*, *P. prunelloides* and *R. tridentata* to exhibit direct smooth muscle activity on the isolated uterus and ileum of rats and *G. perpensa* to have direct smooth muscle activity on the uterus only (Kaido et al., 1997; Katsoulis et al., 2000). Pharmacological justification for the use of the aforementioned traditional remedies has thus been provided. Thirteen of the plant species identi-

fied by Veale et al. (1992) as being used in obstetrics are also used in gynaecology, specifically for the treatment of infertility: *Clivia miniata* (Amaryllidaceae), *Asclepias fruticosa* (Asclepiadaceae), *Callilepis laureola* and *Vernonia tigna* (Asteraceae), *G. perpensa* (Haloragaceae), *Gladiolus sericeovillosus* (Iridaceae), *Bowiea volubilis* (Hyacinthaceae), *Eulophia clavicornis* and *E. tenella* (Orchidaceae), *Pentanasia prunelloides* (Rubiaceae), *Grewia occidentalis* (Tiliaceae), *Typha capensis* (Typhaceae), *R. tridentata* (Vitaceae).

Only one species, *Catharanthus roseus* (Apocynaceae), has been documented as being used in the treatment of breast and uterine cancer (Van Wyk et al., 1997). The alkaloids vincristine and vinblastine have been isolated from this plant and are known for their antitumour activity (Bruneton, 1995). The incidence of breast cancer for black women is the lowest of all ethnic groups in South Africa and remains uncommon among urban dwellers (Walker et al., 1984; Hoffman et al., 2000). Eighteen plant species were documented as being used to induce abortion, which represents 12% of the medicinal plants listed. Although abortion has been legalised in South Africa, it is suspected that traditional healers will still be approached for help, for both cultural and economical reasons.

A plant known by a specific vernacular name in one region may be called by a different name in another. This also applies to various ethnic groups. This can lead to confusion since the same name is given for many plants or one plant is known by several names. Most names are related to the functional significance of the respective plants while others are derived from morphology, anatomy, habit relations, presence of chemical substances or responses to natural factors (Mabogo, 1990). Plants that produce abundant fruit or have profuse flowering, e.g. *Dombeya rotundifolia* (Hochst.) Planch. (wild pear, the “bride of the bushveld”) are usually used to treat infertility whereas plants with a reddish sap, e.g. *Pterocarpus angolensis* DC. (*bloodwood*), will be used to treat dysmenorrhoea, menorrhagia and related diseases (Mabogo, 1990). Similar remedies appear to be used as treatment for the same cause by the Zulu, Sotho and Xhosa (Veale et al., 1992). Although there are a few plants used by both the Zulu and Vhavenda people, the majority do not overlap. This finding is supported by Mabogo (1990) who mentions that certain species that are indispensable in Venda are virtually unused in other parts of South Africa.

Singh et al. (1984) studied folk medicine used for obstetric and gynaecological conditions and disorders by the Tongalese. The specific gynaecological conditions included: vaginal bleeding or discharge, infertility, menstrual problems (e.g. dysmenorrhoea, menorrhagia), dysuria (painful urination), breast disorders and false pregnancy. *Bidens pilosa* and *Cassytha filiformis* are the only two plant species used by both the Tongalese and South African traditional healers. However, in Tonga leaf infusions of both *B. pilosa* and *C. filiformis* are used to treat postpartum haemorrhage while in South Africa these plants are both used to treat

Table 1
Medicinal plants and their gynaecological uses in South Africa

No.	Botanical family and species	Local name ^a	Plant part	Therapeutic indications	Reference
	Acanthaceae				
1	<i>Barleria randii</i> S. Moore	Not recorded No English name known	Root/leaves	Infertility Antiabortifacient	Van Wyk and Gericke (2000) Van Wyk and Gericke (2000)
	Amaranthaceae				
2	<i>Amaranthus caudatus</i> L.	Not recorded No English name known	Leaves	Abortifacient	Van Wyk and Gericke (2000)
3	<i>Pupalia</i> sp.	Isinama esibomvu sehlathi (Z)	Flowers	Infertility	Bryant (1966)
	Amaryllidaceae				
4	<i>Clivia miniata</i> (Lindl.) Regel.	Umayime (Z) Orange lily (E)	Bulb	Infertility	Broster (1982)
	Anacardiaceae				
5	<i>Lannea discolor</i> (Sond.) Engl.	Isiganganyane (Z) Muvhumbu (V) Live-long (E)	Root	Menorrhagia Infertility	Van Wyk and Gericke (2000) Van Wyk and Gericke (2000), Arnold and Gulumian (1984)
6	<i>L. edulis</i> (Sond.) Engl.	Wild grape (E)	Root	Antiabortifacient Dysmenorrhoea	Van Wyk and Gericke (2000) Van Wyk and Gericke (2000)
7	<i>Sclerocarya birrea</i> A. Rich. Hochst.	Mufula (V) Marula (E)	Bark	Infertility	Mabogo (1990)
	Annonaceae				
8	<i>Artabotrys brachypetalus</i> Benth.	Mudzidzi (V) No English name known	Root	Infertility	Arnold and Gulumian (1984)
9	<i>Xylopia parviflora</i> (A. Rich.) Benth.	Muvhulavhusiku (V) No English name known	Root	Menorrhagia Dysmenorrhoea	Arnold and Gulumian (1984) Arnold and Gulumian (1984)
	Apocynaceae				
10	<i>Acokanthera oppositifolia</i> (Lam.) Codd	Mutsilili (V) Common poison bush (E)	Root-bark	Menorrhagia Irregular menstruation	Arnold and Gulumian (1984) Arnold and Gulumian (1984)
11	<i>Catharanthus roseus</i> (L.) G. Don.	Isishushlungu (Z) Madagascar periwinkle (E)	Leaves	Breast cancer Uterine cancer	Van Wyk et al. (1997) Van Wyk et al. (1997)
12	<i>Holarrhena pubescens</i> (Buch. Ham.) Wall.	Makhuluwamuhatu (V) Fever pod (E)	Root	Infertility Amenorrhoea Abortifacient	Arnold and Gulumian (1984) Arnold and Gulumian (1984) Van Wyk and Gericke (2000)
13	<i>Tabernaemontana elegans</i> Stapf.	Mahatu (V) No English name known	Root	Menorrhagia Infertility	Arnold and Gulumian (1984) Arnold and Gulumian (1984)
	Araceae				
14	<i>Zantedeschia aethiopica</i> (L.) Spreng.	Ndalunwepi (V) White arum lily (E)	Root	Infertility	Arnold and Gulumian (1984)
	Arecaceae				
15	<i>Hyphaene coriacea</i> Gaertn. (previously known as <i>Hyphaene natalensis</i>)	Mulala (V) No English name known	Pith of trunk	Dysmenorrhoea	Arnold and Gulumian (1984)
	Aristolochiaceae				
16	<i>Aristolochia heppii</i> Merxm.	Not recorded No English name known	Root	Abortifacient	Van Wyk and Gericke (2000)
	Asclepiadaceae				
17	<i>Asclepias fruticosa</i> L.	Mutshulwa (V) Milkweed (E)	Root	Infertility	Mabogo (1990)
18	<i>Xysmalobium undulatum</i> (L.) Aiton F.	Ishongwe (Z; X) Milkwort (E)	Root	Dysmenorrhoea	Van Wyk and Gericke (2000), Van Wyk et al. (1997)
	Asparagaceae				
19	<i>Asparagus buechananii</i> Bak.	Lufahlazamakole (V) No English name known	Leaves	Amenorrhoea	Arnold and Gulumian (1984)
	Asphodelaceae				
20	<i>Aloe</i> sp.		Unspecified	Contraceptive	Hutchings et al. (1996)
21	<i>Aloe chabaudii</i> Schon.	Inkalane (Z) Chabaud's aloe (E)	Leaves	Abortifacient	Van Wyk and Gericke (2000)
22	<i>A. christianii</i> Reyn.	Not recorded No English name known	Leaves	Abortifacient	Van Wyk and Gericke (2000)
23	<i>A. ferox</i> Mill.	Umhlaba (Z; X) Bitter aloe (E)	Leaves	Abortifacient	Van Wyk and Gericke (2000)
24	<i>A. rupestris</i> Bak.	Uphondonde (V) Rock aloe (E)	Root	Dysmenorrhoea	Bryant (1966)

Table 1 (Continued)

No.	Botanical family and species	Local name ^a	Plant part	Therapeutic indications	Reference
25	<i>Kniphofia uaria</i> (L.) Oken	Icacane (Z) Red-hot poker (E)	Rhizome/root	Dysmenorrhoea	Pujol (1990), Watt and Breyer-Brandwijk (1962)
	Asteraceae				
26	<i>Artemisia afra</i> Jacq. ex Willd.	Umhloniyane (Z; X) African wormwood (E)	Unspecified	Dysmenorrhoea	Van Wyk and Gericke (2000)
27	<i>Aspilia pluriseta</i> Schweinf.	Not recorded No English name known	Root	Amenorrhoea	Van Wyk and Gericke (2000)
28	<i>Bidens pilosa</i> L.	Mushidzhi (V) Common black-jack (E)	Leaves	Menorrhagia Infertility	Mabogo (1990) Mabogo (1990)
29	<i>Callilepis laureola</i> DC.	Impila (Z) Ox-eye daisy (E)	Tuber	Infertility	Hulme (1954)
30	<i>Dicoma anomala</i> Sond.	Umuna (Z) Inyongana (X) No English name known	Root	Infertility	Watt and Breyer-Brandwijk (1962)
31	<i>D. zeyheri</i> Sond.	Tshitoni (V) Toy sugarbush (E)	Flowers/fruit	Infections related to infertility	Mabogo (1990)
32	<i>Helichrysum foetidum</i> (L.) Moench	Isicwe (Z) Everlastings (E)	Unspecified	Dysmenorrhoea	Hutchings et al. (1996)
33	<i>Schkuhria pinnata</i> (Lam.) Cabrera	Ruhwahwa (Z) Dwarf mexican marigold (E)	Whole plant	Abortifacient Contraceptive	Van Wyk and Gericke (2000) Van Wyk and Gericke (2000)
34	<i>Vernonia amygdalina</i> Del.	Not recorded No English name known	Root	Infertility Amenorrhoea	Van Wyk and Gericke (2000) Van Wyk and Gericke (2000)
35	<i>V. glabrerrima</i> (Steetz) Vatke	Not recorded No English name known	Root	Dysmenorrhoea	Van Wyk and Gericke (2000)
36	<i>V. myriantha</i> Hook. F. (previously known as <i>V. stipulacea</i>)	Mululudza (V) No English name known	Root	Contraceptive	Mabogo (1990)
37	<i>V. tigna</i> Klatt (previously known as <i>V. corymbosa</i>)	Phathaphathane (V) Umzane-wehlati (Z) No English name known	Leaves/root	Abortifacient Infertility Irregular menstruation	Mabogo (1990), Watt and Breyer-Brandwijk (1962) Bryant (1966) Watt and Breyer-Brandwijk (1962)
	Boraginaceae				
38	<i>Ehretia rigida</i> (Thunb.) Druce	Mutepe (V) Puzzlebush (E)	Root	Infertility	Arnold and Gulumian (1984)
	Capparaceae				
39	<i>Boscia foetida</i> Schinz	Umvithi (Z) Stink-bush (E)	Unspecified	Amenorrhoea	Van Wyk and Gericke (2000)
40	<i>Capparis tomentosa</i> Lam.	Umqoqolo (Z) Muoba-dali (V)	Root	Menorrhagia Infertility	Arnold and Gulumian (1984) Van Wyk and Gericke (2000), Arnold and Gulumian (1984), Bryant (1966), Hutchings et al. (1996)
41	<i>Maerua cafra</i> (DC.) Pax	Wooly caper-bush (E) Mukundulela (V) No English name known	Root	Antiabortifacient Menorrhagia Infertility	Van Wyk and Gericke (2000) Arnold and Gulumian (1984), Mabogo (1990) Arnold and Gulumian (1984)
	Celastraceae				
42	<i>Elaeodendron transvaalense</i> (Burt Davy) R.H. Archer (previously known as <i>Cassine transvaalensis</i>)	Umgugudo (Z) No English name known	Bark	Dysmenorrhoea	Van Wyk (1972)
	Clusiaceae				
43	<i>Garcinia livingstonei</i> T. Anderson	Muphiphi (V) Livingstone's garcinia (E)	Root	Contraceptive	Mabogo (1990)
	Colchicaceae				
44	<i>Gloriosa virescens</i> Lindl.	Ihlamvu (Z) Flame lily (E)	(a) Root (b) Bulb	Infertility Infertility	Bryant (1966), Broster (1982) Bryant (1966)

Table 1 (Continued)

No.	Botanical family and species	Local name ^a	Plant part	Therapeutic indications	Reference
Combretaceae					
45	<i>Combretum erythrophyllum</i> (Burch.) Sond.	Muvuvhu (V) Bushveld willow (E)	Bark	Infertility Antiabortifacient	Mabogo (1990) Mabogo (1990)
46	<i>C. imberbe</i> Wawra	Mudzwiri (V) Leadwood (E)	Root	Infertility	Mabogo (1990)
47	<i>C. molle</i> R. Br. ex G. Don.	Mugwiti (V) Velvet bush willow (E)	Root	Infertility	Mabogo (1990)
48	<i>C. paniculatum</i> Vent.	Mukopo-kopo (V) Flame creeper (E)	Root	Infertility Menorrhagia	Arnold and Gulumian (1984) Arnold and Gulumian (1984)
49	<i>Terminalia sericea</i> Burch. ex DC.	Mususu (V) Silver cluster leaf (E)	(a) Root (b) Leaves	Infertility Menorrhagia	Arnold and Gulumian (1984) Arnold and Gulumian (1984)
Commelinaceae					
50	<i>Commelina africana</i> L.	Ucolane (Z)	Root	Infertility	Watt and Breyer-Brandwijk (1962)
		Lekzotswana (X) Yellow Commelina (E)		Dysmenorrhoea	Van Wyk and Gericke (2000)
51	<i>C. benghalensis</i> L.	Idangabane (Z) Uhlotsane (X) Benghal Commelina (E)	Unspecified	Infertility	Van Wyk and Gericke (2000)
52	<i>Cyanotis speciosa</i> (L. F.) Hassk.	Ingonga (Z) Umagoswana (X) Doll's powderpuff (E)	Root	Infertility Dysmenorrhoea	Van Wyk and Gericke (2000) Van Wyk and Gericke (2000)
Cupressaceae					
53	<i>Widdringtonia nodiflora</i> (L.) Powrie (previously known as <i>W. cupressoides</i>)	Thaululo (V) Mountain cypress (E)	Root	Menstruation: unknown	Mabogo (1990)
Cyperaceae					
54	<i>Cyperus esculentus</i> L.	Indawo (Z) Yellow nut sedge (E)	Root	Amenorrhoea Infertility	Bryant (1966) Bryant (1966)
Dennstaedtiaceae					
55	<i>Pteridium aquilinum</i> (L.) Kuhn	Umhlahoshana (Z) Bracken fern (E)	Root	Irregular menstruation Abortifacient	Watt and Breyer-Brandwijk (1962) Watt and Breyer-Brandwijk (1962)
Dipsacaceae					
56	<i>Scabiosa columbaria</i> L.	Igwalaza (Z) Makgha (X) Wild scabious (E)	Root	Infertility Dysmenorrhoea	Watt and Breyer-Brandwijk (1962), Pooley (1998) Hutchings et al. (1996), Pooley (1998)
Ebenaceae					
57	<i>Diospyros lycioides</i> Desf.	Umbulwa (Z) Bluebush (E)	Root	Infertility	Stayt (1968)
58	<i>D. whyteana</i> (Hiern) F. White	Umtimatane (Z) Black bark (E)	Unspecified	Dysmenorrhoea Infertility	Bryant (1966) Bryant (1966)
59	<i>Euclea crispa</i> Thunb. Gürke	Umgwali (Z) Blue guarri (E)	Leaves	Dysmenorrhoea	Jacot Guillarmod (1971)
60	<i>E. natalensis</i> A. DC.	Mutangule-thavha (V) Umzimane (Z) Natal guarri (E)	Root	Infertility Abortifacient Amenorrhoea Dysmenorrhoea	Arnold and Gulumian (1984) Arnold and Gulumian (1984) Arnold and Gulumian (1984) Pujol (1990)
61	<i>E. schimperi</i> (A. DC.) Dandy	Idungamuzi (Z) Bush guarri (E)	Bark	Dysmenorrhoea	Watt and Breyer-Brandwijk (1962)
Equisetaceae					
62	<i>Equisetum ramosissimum</i> Desf.	Isikhumukele (Z) Horsetail-fern (E)	Rhizome	Infertility	Jacot Guillarmod (1971)
Erioseptaceae					
63	<i>Erioseptum flagelliforme</i> (Baker) J.C. Manning (previously known as <i>E. abyssinicum</i>)	Insulansula (Z) No English name known	Tuber	Antiabortifacient	Van Wyk and Gericke (2000)

Table 1 (Continued)

No.	Botanical family and species	Local name ^a	Plant part	Therapeutic indications	Reference
Euphorbiaceae					
64	<i>Acalypha villicaulis</i> Hochst. ex A. Rich. (previously known as <i>A. petiolaris</i>)	Umpendulo (Z)	Root	Abortifacient	Watt and Breyer-Brandwijk (1962)
		Heart-leaved brooms and brushes (E)		Contraceptive	Watt and Breyer-Brandwijk (1962)
65	<i>Antidesma venosum</i> E. Mey. ex Tul.	Mupalakhwali (V) Tassle berry (E)	Root	Infertility Menorrhagia Dysmenorrhoea	Arnold and Gulumian (1984) Arnold and Gulumian (1984) Arnold and Gulumian (1984)
66	<i>Bridelia micrantha</i> (Hochst.) Baill.	Munzere (V) Coastal golden-leaf (E)	Bark	Abortifacient	Van Wyk and Gericke (2000), Arnold and Gulumian (1984)
67	<i>Monadenium lugardae</i> N. E. Br.	Umhuwa (Z) Monadenium (E)	Tuber	Abortifacient	Hutchings et al. (1996)
Fabaceae					
68	<i>Albizia brevifolia</i> Schinz	Mutsilari (V) No English name known	Root	Amenorrhoea	Arnold and Gulumian (1984)
69	<i>Bauhinia galpinii</i> N. E. Br.	Umhuwa (Z) Mutswiriri (V) Pride of the Cape (E)	(a) Root (b) Seed	Infertility Amenorrhoea	Arnold and Gulumian (1984) Van Wyk and Gericke (2000)
70	<i>B. petersiana</i> Bolle	Not recorded No English name known	Root	Infertility Dysmenorrhoea	Van Wyk and Gericke (2000) Van Wyk and Gericke (2000)
71	<i>B. thonningii</i> Schumach	Picture-frame tree (E)	Leaves	Menorrhagia	Van Wyk and Gericke (2000)
72	<i>Burkea africana</i> Hook.	Wild seringa (E)	Bark	Menorrhagia	Van Wyk and Gericke (2000)
73	<i>Cassia abbreviata</i> Oliver	Isinyembane (Z) Long-pod Cassia (E)	Root	Abortifacient Menorrhagia	Van Wyk and Gericke (2000) Van Wyk and Gericke (2000)
74	<i>Dichrostachys cinerea</i> (L.) Wright & Arn.	Murenzhe (V) Sickle bush (E)	Root	Infertility	Arnold and Gulumian (1984)
75	<i>Elephantorrhiza burkei</i> Benth.	Musesevhuva (V) Umdabu (Z) No English name known	Root	Abortifacient	Arnold and Gulumian (1984), Hutchings et al. (1996), Watt and Breyer-Brandwijk (1962)
76	<i>Eriosema cordatum</i> E. Mey.	Uqontsi (Z) Heart-leaved Eriosema (E)	Root	Infertility	Bryant (1966)
77	<i>Indigofera antunesiana</i> Harms	Not recorded No English name known	Root	Dysmenorrhoea	Van Wyk and Gericke (2000)
78	<i>I. arrecta</i> Hocht. ex A. Rich.	Isiphungo (Z) African indigo (E)	Root	Infertility Dysmenorrhoea	Van Wyk and Gericke (2000) Van Wyk and Gericke (2000)
79	<i>I. rhynchoarpa</i> Welw. ex Bak.	Not recorded No English name known	Unspecified	Dysmenorrhoea	Van Wyk and Gericke (2000)
80	<i>Peltophorum africanum</i> Sond.	Muse (V) Weeping wattle (E)	Root	Menorrhagia Infertility	Arnold and Gulumian (1984) Palmer and Pitman (1972)
81	<i>Pterocarpus angolensis</i> DC.	Mutondo (V) Wild teak (E)	(a) Bark (b) Root	Amenorrhoea Menorrhagia Amenorrhoea	Mabogo (1990) Mabogo (1990) Arnold and Gulumian (1984)
82	<i>Senna petersiana</i> (Bolle) Lock (previously known as <i>Cassia petersiana</i>)	Muembenembe (V) No English name known	Root	Infertility	Mabogo (1990)
83	<i>Vigna unguiculata</i> (L.) Walp.	Isikhwali (Z) Wild cow pea (E)	(a) Seed (b) Root	Amenorrhoea Dysmenorrhoea	Van Wyk and Gericke (2000) Van Wyk and Gericke (2000)
Flacourtiaceae					
84	<i>Dovyalis caffra</i> (Hook. F. & Harv.) Hook. F.	Mutunu (V) Kei apple (E)	Thorns	Amenorrhoea	Arnold and Gulumian (1984)
85	<i>Oncoba spinosa</i> Forssk.	Mutuzwu (V) No English name known	Root	Infertility	Arnold and Gulumian (1984)
Geraniaceae					
86	<i>Geranium incanum</i> Burm. F.	Isikhwali (Z) No English name known	Leaves	Menstruation unspecified	Van Wyk and Gericke (2000), Van Wyk et al. (1997)
Haloragaceae					
87	<i>Gunnera perpensa</i> L.	Uxobo (Z; X) River pumpkin (E)	Root	Dysmenorrhoea Infertility	Van Wyk and Gericke (2000) Bryant (1966)
Heteropyxidaceae					
88	<i>Heteropyxis natalensis</i> Harv.	Mudedede (V) Lavender tree (E)	Root	Menorrhagia	Arnold and Gulumian (1984)

Table 1 (Continued)

No.	Botanical family and species	Local name ^a	Plant part	Therapeutic indications	Reference
89	Hyacinthaceae <i>Bowiea volubilis</i> Harv. ex Hook. F.	Ugibisisila (Z) Umgaqana (X) Climbing potato (E)	Bulbs	Infertility Abortifacient	Pujol (1990), Batten and Bokelmann (1966) Hutchings et al. (1996)
90	Hypoxidaceae <i>Hypoxis colchicifolia</i> Bak. (previously known as <i>H. latifolia</i>)	Ingcobo (Z) Broad-leaved Hypoxis (E)	Corms	Infertility	Bryant (1966), Pooley (1998)
91	Icacinaeae <i>Pyrenacantha scandens</i> Planch. ex Harv.	Unginakile (Z) No English name known	Root	Antiabortifacient Infertility	Bryant (1966) Bryant (1966), Watt and Breyer-Brandwijk (1962)
92	Iridaceae <i>Crocoshia paniculata</i> (Klatt) Goldblatt	Undwendweni (Z) Falling stars (E)	Corms	Infertility	Hutchings et al. (1996)
93	<i>C. pottsii</i> (Macnab ex Baker) N. E. Br.	Undwendweni (Z) Slender Crocosmia (E)	Corms	Infertility	Hutchings et al. (1996)
94	<i>Gladiolus ludwigii</i> Pappe ex Baker	Isidwa (Z) No English name known	Root	Infertility Dysmenorrhoea	Bryant (1966) Bryant (1966)
95	<i>G. sericeovillosus</i> Hook. F.	Umlunge (Z)	Root	Dysmenorrhoea	Bryant (1966), Hutchings et al. (1996), Pujol (1990)
96	<i>Moraea spathulata</i> (L. F.) Klatt	Large speckled Gladiolus (E) Ingqunda (Z) Large yellow Moraea (E)	Corms	Infertility Infertility	Hutchings et al. (1996) Hulme (1954)
97	Lamiaceae <i>Leonotis nepetifolia</i> (L.) R. Br.	Umunyane (Z) No English name known	Leaves	Abortifacient	Van Wyk and Gericke (2000)
98	<i>L. leonorus</i> (L.) R. Br.	Imunyamunya (Z) Wild dagga (E)	Unspecified	Amenorrhoea	Watt and Breyer-Brandwijk (1962)
99	Lauraceae <i>Cassytha filiformis</i> L.	Luangalala (V) False dodder (E)	Root	Menorrhagia Infertility	Arnold and Gulumian (1984) Arnold and Gulumian (1984)
100	<i>Cryptocarya latifolia</i> Sond.	Umthungwa (Z) Wild quince (E)	Bark	Dysmenorrhoea	Hutchings et al. (1996)
101	Maesaceae <i>Maesa lanceolata</i> Forssk.	Muunguri (V) False assegai (E)	Root	Infertility	Arnold and Gulumian (1984)
102	Malpighiaceae <i>Sphedamocarpus galphimifolius</i> Szyszyl.	Tsimambe (V) No English name known	Root	Menorrhagia Infertility	Arnold and Gulumian (1984) Arnold and Gulumian (1984)
103	Malvaceae <i>Hibiscus vitifolius</i> L.	Muhwidzi (V) Hibiscus (E)	Root	Infertility	Arnold and Gulumian (1984)
104	Melanthaceae <i>Bersama lucens</i> (Hochst.) Szyszyl.	Undiyaza (Z) Glossy bersama (E)	Bark	Dysmenorrhoea Infertility	Bryant (1966) Bryant (1966)
105	Menispermaceae <i>Cissampelos mucronata</i> A. Rich.	Umbombo (Z) Heart-leaved vine (E)	Root	Dysmenorrhoea Infertility Menorrhagia	Van Wyk and Gericke (2000) Van Wyk and Gericke (2000) Van Wyk and Gericke (2000)
106	Moraceae <i>Ficus sur</i> Forssk.	Umkhiwane (Z) Broom cluster fig (E)	Root	Antiabortifacient Infertility	Van Wyk and Gericke (2000) Van Wyk and Gericke (2000)
107	Myricaceae <i>Morchella serrata</i> Lam. (previously known as <i>Myrica serrata</i>)	Umlulama (Z) No English name known	Unspecified	Dysmenorrhoea	Watt and Breyer-Brandwijk (1962)
108	Myrtaceae <i>Syzygium cordatum</i> Hochst. ex Sond.	Mutu (V) Waterberry (E)	Root	Amenorrhoea	Arnold and Gulumian (1984)

Table 1 (Continued)

No.	Botanical family and species	Local name ^a	Plant part	Therapeutic indications	Reference
	Nymphaeaceae				
109	<i>Nymphaea nouchali</i> Burm. F. (previously known as <i>N. capensis</i>)	Shamboda (V) Water lily (E)	Root	Infertility	Arnold and Gulumian (1984)
	Ochnaceae				
110	<i>Brackenridgea zanguebarica</i> Oliver	Mutavhatsindi (V) No English name known	Root	Amenorrhoea	Arnold and Gulumian (1984)
111	<i>Ochna natalitia</i> (Meinsn.) Walp.	Umshelele (Z) Cape plane (E)	Root	Infertility	Palmer and Pitman (1972)
	Olacaceae				
112	<i>Ximenia americana</i> L.	Mutanzwa-tanzwane (V) Blue sourplum (E)	Root	Menorrhagia	Arnold and Gulumian (1984)
113	<i>Ximenia caffra</i> Sond.	Umthunduluka (Z) Mutanzwa (V) Sourplum (E)	Root	Infertility Menorrhagia	Van Wyk and Gericke (2000), Arnold and Gulumian (1984) Arnold and Gulumian (1984)
	Orchidaceae				
114	<i>Disa aconitoides</i> Sond.	Umashushu (Z) No English name known	Root	Infertility	Hulme (1954)
115	<i>Eulophia arenaria</i> Lindl.	Undwendweni (Z) No English name known	Root	Infertility	Bryant (1966)
116	<i>E. clavicornis</i> Lindl.	Eluhlaza (Z) No English name known	Tubers	Infertility	Pooley (1998)
117	<i>E. cucullata</i> (Afzel. ex Swartz) Steudel	Undwendweni (Z) Bell orchid (E)	Root	Infertility	Hulme (1954)
118	<i>E. ovalis</i> Lindl.	Iphamba (Z) No English name known	Tubers	Infertility	Hutchings et al. (1996)
119	<i>E. tenella</i> Reichb. F.	Untongazibomvana (Z) No English name known	Tubers	Infertility	Hutchings et al. (1996), Watt and Breyer-Brandwijk (1962)
	Passifloraceae				
120	<i>Adenia gummifera</i> (Harv.) Harms	Bopha (V) No English name known	Root	Infertility Menorrhagia	Arnold and Gulumian (1984) Arnold and Gulumian (1984)
	Pedaliaceae				
121	<i>Ceratotheca triloba</i> (Bernh.) Hook. F.	Udonqabathwa (Z) Wild foxglove (E)	Leaves	Abortifacient Dysmenorrhoea	Van Wyk and Gericke (2000) Watt and Breyer-Brandwijk (1962), Pooley (1998)
122	<i>Harpagophytum procumbens</i> (Burch.) DC.	Devil's claw (E)	Tubers	Infertility Dysmenorrhoea	Van Wyk and Gericke (2000) Van Wyk and Gericke (2000)
	Phytolaccaceae				
123	<i>Phytolacca dodecandra</i> L. Hér.	Umahedeni (Z) No English name known	Root	Infertility	Hutchings et al. (1996)
	Piperaceae				
124	<i>Piper capense</i> L. F.	Mulilwe (V) Wild pepper (E)	Bark	Infertility	Arnold and Gulumian (1984)
	Poaceae				
125	<i>Cenchrus ciliaris</i> L.	Indungulu (Z) Buffalo grass (E)	Runners	Dysmenorrhoea	Pujol (1990)
126	<i>Eragrostis plana</i> Nees.	Umvithi (Z) Ox grass (E)	Root	Menorrhagia	Bryant (1966)
	Polygalaceae				
127	<i>Securidaca longipendunculata</i> Fresen.	Mpesu (V) Violet tree (E)	Root	Dysmenorrhoea Contraceptive	Van Wyk and Gericke (2000), Watt and Breyer-Brandwijk (1962) Arnold and Gulumian (1984), Netshungani (1981)
	Polygonaceae				
128	<i>Rumex lanceolatus</i> Thunb.	Idololenkonyane (Z) Idolonyana (X) Smooth dock (E)	Rhizome	Infertility	Watt and Breyer-Brandwijk (1962)
	Rhamnaceae				
129	<i>Berchemia discolor</i> (Klotzsch) Hemsl.	Munyee (V) Wild almond (E)	Root	Infertility Menorrhagia	Arnold and Gulumian (1984) Arnold and Gulumian (1984)

Table 1 (Continued)

No.	Botanical family and species	Local name ^a	Plant part	Therapeutic indications	Reference
130	<i>Ziziphus mucronata</i> Willd.	Mukhalu (V) Buffalo thorn (E)	Root	Menorrhagia Infertility	Arnold and Gulumian (1984) Arnold and Gulumian (1984)
Rubiaceae					
131	<i>Kohautia amatymbica</i> Eckl. & Zeyh.	Umlungulo (Z) Labantwana (X) Tremble tops (E)	Unspecified	Infertility	Hutchings et al. (1996), Watt and Breyer-Brandwijk (1962)
132	<i>Pentanisia prunelloides</i> (Klotzch ex Eckl. & Zeyh.) Walp.	Icimamilo (Z; X)	Root	Dysmenorrhoea	Van Wyk and Gericke (2000)
Broad-leaved <i>Pentanisia</i> (E)					
133	<i>Rubia cordifolia</i> L.	Umalibombo (Z)	Root	Menorrhagia	Hutchings et al. (1996), Pooley (1998)
Sticky-leaved <i>Rubia</i> (E)					
				Amenorrhoea	Watt and Breyer-Brandwijk (1962), Pooley (1998)
				Infertility	Bryant (1966)
134	<i>Vangueria infausta</i> Burch.	Muzwilu (V) Wild medlar (E)	Root	Infertility Menstruation: unknown	Mabogo (1990) Watt and Breyer-Brandwijk (1962)
Rutaceae					
135	<i>Agathosma betulina</i> (P.J. Bergius) Pillans	Round-leaf Buchu (E)	Unspecified	Dysmenorrhoea	Van Wyk and Gericke (2000)
136	<i>Vepris lanceolata</i> (Lam.) G. Don.	Muhondwa (V) Ironwood (E)	Root	Infertility Menorrhagia	Arnold and Gulumian (1984) Arnold and Gulumian (1984)
137	<i>Zanthoxylum capense</i> (Thunb.) Harv.	Umlungumabele (Z; X) Small knobwood (E)	Root	Infertility	Hutchings et al. (1996)
Santalaceae					
138	<i>Osyris lanceolata</i> Hochst. & Steudel	Mpetu (V) No English name known	Root	Menorrhagia Infertility	Arnold and Gulumian (1984) Arnold and Gulumian (1984)
Sapotaceae					
139	<i>Englerophytum magalismontanum</i> (Sond.) T.D. Penn. (previously known as <i>Bequaerti dendron magalismontanum</i>)	Munombelo (V) Transvaal milkplum (E)	Unspecified	Contraceptive	Mabogo (1990)
Scrophulariaceae					
140	<i>Graderia scabra</i> (L. F.) Benth.	Ugweje (Z) Wild penstemon (E)	Unspecified	Abortifacient Dysmenorrhoea	Watt and Breyer-Brandwijk (1962) Watt and Breyer-Brandwijk (1962)
141	<i>Jamesbrittenia kraussiana</i> (Bernh.) Hilliard (previously known as <i>Sutera kraussiana</i>)	Usikisiki omhlophe (Z) No English name known	Leaves	Dysmenorrhoea	Hulme (1954)
142	<i>Sutera floribunda</i> (Benth.) Kuntze.	Usikisiki Iwehlathi (Z) No English name known	Leaves	Dysmenorrhoea	Hulme (1954)
Solanaceae					
143	<i>Solanum hermannii</i> Dun.	Umthuma (Z) No English name known	Root-bark	Infertility	Bryant (1966)
144	<i>S. mauritanum</i> Scop.	Umtotovane (Z) Bug tree (E)	Root	Menorrhagia	Hutchings et al. (1996)
Sterculiaceae					
145	<i>Dombeya rotundifolia</i> (Hochst.) Planch.	Tshiluvhari (V) Wild plum (E)	Root	Infertility	Mabogo (1990)
Strychnaceae					
146	<i>Strychnos henningsii</i> Gilg.	Umqaloti (Z) Umnonono (X) Natal teak (E)	Bark	Dysmenorrhoea	Hutchings et al. (1996)
147	<i>S. madagascariensis</i> Poiret	Mukwakwa (V) Black monkey orange (E)	Bark	Dysmenorrhoea	Arnold and Gulumian (1984)
Tiliaceae					
148	<i>Grewia flavescens</i> Juss.	Muparatsheni (V) No English name known	Root	Infertility	Mabogo (1990)

Table 1 (Continued)

No.	Botanical family and species	Local name ^a	Plant part	Therapeutic indications	Reference
149	<i>G. microthyrsa</i> K. Schum. ex Burret	Mupfuka (V) No English name known	Root	Infertility	Arnold and Gulumian (1984)
150	<i>G. occidentalis</i> L.	Iklolo (Z) Cross-berry (E)	Unspecified	Infertility	Bryant (1966)
Typhaceae					
151	<i>Typha capensis</i> (Rohrb.) N. E. Br.	Ibuma (Z) Bullrush (E)	Rhizome	Dysmenorrhoea Infertility	Van Wyk et al. (1997), Van Wyk and Gericke (2000), Van Wyk et al. (1997) Van Wyk et al. (1997)
Urticaceae					
152	<i>Pouzolzia mixta</i> Solms	Udekane (Z) Soap-nettle (E)	Root	Infertility Contraceptive	Van Wyk and Gericke (2000) Van Wyk and Gericke (2000)
153	<i>Urtica urens</i> L.	Imbhabazane (Z) Stinging nettle (E)	Unspecified	Infertility	Bryant (1966)
Viscaceae					
154	<i>Viscum capense</i> L. F.	Iphakama (Z) Cape mistletoe (E)	Root	Irregular menstruation Menorrhagia	Laidler (1926), Kling (1923) Laidler (1926), Kling (1923)
Vitaceae					
155	<i>Rhoicissus tridentata</i> (L. F.) Wild & R.B. Drumm.	Umthwazi (Z) Mutumbula mbudzana (V) Wild grape (E)	Tuber	Infertility Dysmenorrhoea	Van Wyk and Gericke (2000), Arnold and Gulumian (1984), Bryant (1966), Pujol (1990) Van Wyk and Gericke (2000), Bryant (1966)
Zingiberaceae					
156	<i>Siphonochilus aethiopicus</i> (Schweinf.) B.L. Burt	Isiphephetho (Z) Wild ginger (E)	Rhizome	Amenorrhoea Dysmenorrhoea	Pujol (1990) Van Wyk and Gericke (2000)

^a Local name: Z, Zulu; V, Vhavenda; X, Xhosa; E, English.

menorrhagia and infertility (Singh et al., 1984; Arnold and Gulumian, 1984). Other similarities included the genera *Diospyros*, *Hibiscus*, *Syzygium* and *Piper*, however, there were differences in the species used for treatment. Interestingly, the overlap in the medicinal plants are specifically between the Vhavenda and Tongalese and not the Zulu people. Other similarities in use of genera (*Amaranthus*, *Aloe*, *Artemisia*, *Leonotis*, *Urtica*, *Viscum*) can be found between the Dominican healing system in New York City and South Africa (Ososki et al., 2002). There are however differences in the species and the specific women's condition treated. *Harpagophytum procumbens* and *Ximenia caffra* are used to enhance fertility in both South Africa and Botswana (Anderson and Staugard, 1986). The genera *Antidesma*, *Hibiscus* and *Piper* are used in both Malaysia and South Africa for treating gynaecological disorders (Ling and Ng, 1998). However, once again the species and the specific disorder treated differ.

Plants belonging to 73 plant families are used as treatment for gynaecological disorders. As expected based on the family size and abundance, the most common plant families reported are the Fabaceae (14 species) and Asteraceae (12 species). The chemistry of each family has been documented in detail by Hutchings et al. (1996). The plants which are potentially toxic are listed in Table 2. It is important that the correct part of the plant is collected since a specific part may be toxic whilst another may have no

harmful effect due to a difference in the concentration of active ingredients in different parts of the plant. Roots are used in 57% of cases to prepare the remedy, leaves in 11% of cases and bark in 9% of cases. Some remedies are prescribed by healers as mixtures. Two plants are identified to genus, *Aloe* sp. and *Pupalia* sp., since various species are used in treatment but are not specified by the particular author.

Dosage form as well the method of preparation and administration are very important. The Vhavenda most often prepare a decoction of the plant part in the form of a soft porridge (Arnold and Gulumian, 1984). *Adenia gumifera* (Passifloraceae), *Xylopiya parviflora* (Annonaceae) and *Elephantorrhiza burkei* (Fabaceae) are used as vaginal douches and *Kniphofia uvaria* (Asphodelaceae) and *Euclea schimperi* (Ebenaceae) are administered as enemas. The genitals are steamed with *Artemisia afra* (Asteraceae) to relieve menstrual cramps. In eight instances the plant part is burnt and the smoke directed into either the vagina (*Barleria randii*) or the vulva (*Tabernaemontana elegans*, *Acokanthera oppositifolia*, *Asparagus buchananii*, *Capparis tomentosa*, *Maerua caffra*, *Berchemia discolor*, *Osyris lanceolata*). Powdered plant material is also applied to underwear: *Albizia brevifolia*, *Brackenridgea zanguebarica* and *P. angolensis*, all for the treatment of amenorrhoea. The rest of the medicinal plants are prepared as either infusions or decoctions which are taken orally.

Table 2
Potentially toxic plants used in traditional remedies taken for gynaecological disorders and complaints^a

Botanical family and species	Toxic compounds	Features of poisoning
Amaryllidaceae		
<i>Clivia miniata</i>	Lycorine (isoquinoline alkaloid)	Paralysis, collapse
Apocynaceae		
<i>Acokanthera oppositifolia</i>	Acovenoside A Cardenolide (cardiac glycoside)	Heart failure due to cardiac abnormalities
<i>Catharanthus roseus</i>	Catharanthine (indole alkaloid) Vinblastine	Hypoglycaemia, neurotoxic
Araceae		
<i>Zantedeschia aethiopica</i>	Proanthocyanidin polymers	Toxic in rabbits
Asclepiadaceae		
<i>Asclepias fruticosa</i>	Cardenolide (cardiac glycoside) Gomphoside, afroside	Respiratory problems, weak heartbeat
Asteraceae		
<i>Callilepis laureola</i>	Atractylolide (diterpenoid)	Hypoglycaemia, strychnine-like symptoms
<i>Vernonia</i> sp.	Vernonin (glycoside)	Cardiotonic action in dogs
Capparaceae		
<i>Boscia foetida</i>	Unidentified (? hydrocyanic acid)	Toxic to sheep: haemorrhagic diarrhoea
Colchicaceae		
<i>Gloriosa virescens</i>	Colchicine (alkaloid)	Respiratory failure, renal failure, convulsions
Combretaceae		
<i>Combretum erythrophyllum</i>	Unidentified	Abdominal pain, vomiting, confusion
Dennstaedtiaceae		
<i>Pteridium aquilinum</i>	Ptaquiloside (sesquiterpenoid) Thiaminase (enzyme)	Carcinogenic and mutagenic: destroys bone marrow leading to internal bleeding
Equisetaceae		
<i>Equisetum ramosissimum</i>	Palustrine (macrocyclic alkaloid) Thiaminase (enzyme)	Toxic to sheep, cattle, horses: leads to vitamin deficiency, i.e. nervousness, lack of co-ordination
Euphorbiaceae		
<i>Antidesma venosum</i>	Unidentified	
<i>Bridelia micrantha</i>	? Delphinidin, ? methyl salicylate	Death occurred within 4 h of ingestion
<i>Monadenium lugardiae</i>	Latex: compound unidentified	Haemorrhagic gastroenteritis, cirrhosis of the liver, hallucinations
Fabaceae		
<i>Indigofera</i> sp.	Hydrocyanic acid, indican	Toxic to cattle
Hyacinthaceae		
<i>Bowiea volubilis</i>	Bufadienolide (cardiac glycoside) Bovoside A	Irregular heart palpitations
Iridaceae		
<i>Moraea spathulata</i>	Bufadienolide (cardiac glycoside)	Heart failure
Melianthaceae		
<i>Bersama lucens</i>	Bufadienolide (cardiac glycoside)	Not given. Led to death
Olaceae		
<i>Ximenia americana</i>	Hydrocyanic acid	Not given. Led to death
Passifloraceae		
<i>Adenia gummifera</i>	Modeccin	Acute centrilobular necrosis, hypoglycaemia
Phytolaccaceae		
<i>Phytolacca dodecandra</i>	Oleanoglycotoxin A (triterpenoid) Lemmatoxin ? Lectins	Abdominal swelling, acceleration of pulse, inebriation
Solanaceae		
<i>Solanum hermannii</i>	Solanine (steroid alkaloid)	Fever, dizziness, hallucinations
Strychnaceae		
<i>Strychnos</i> sp.	Strychnine (indole alkaloid)	Strychnine-like effects
Vitaceae		
<i>Rhoicissus tridentata</i>	Unidentified	Paralysis of central nervous system leading to respiratory arrest

^a Based on Watt and Breyer-Brandwijk (1962), Hutchings et al. (1996), Van Wyk et al. (1997), Van Wyk et al. (2002).

Varied usage of plants is found in a specific plant family. The exception being the families Orchidaceae and Tiliaceae where all representing species are used to treat infertility. Sixty one plants have multiple uses in gynaecology. All the *Aloe* sp., with the exception of *A. rupestris* are used as abortifacients due to the purgation induced by anthroquinones (Van Wyk and Gericke, 2000). The Zulu use various *Bauhinia* sp. (Fabaceae) for the treatment of different gynaecological disorders. A decoction of the seed of *B. galpinii* is taken orally to stimulate menstruation in amenorrhoea whereas a root infusion of *B. petersiana* is taken orally for menstrual cramps and infertility and leaf infusions of *B. thonningii* are taken for heavy menstruation (Van Wyk and Gericke, 2000). A number of *Vernonia* sp. (Asteraceae) and *Indigofera* sp. (Fabaceae) are used in treating women's health problems. Root infusions of the latter are taken orally for the treatment of menstrual cramps.

This review indicates that a wide spectrum of remedies are used by women to regulate the menstrual cycle, enhance fertility, ameliorate menopausal symptoms, as abortifacients and/or as antiabortifacients. From the literature it seems unlikely that an universal plant exists for treatment of a specific gynaecological disorder. These plants have yet to be scientifically evaluated and investigated.

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