

A STUDY RELATIVE TO THE FUNCTIONS OF
THE REPRODUCTIVE APPARATUS IN
AMERICAN INDIAN WOMEN.

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I.

A CAREFUL examination of the Indian question as it is presented to the people of the United States must lead to the conclusion that the Indians must submit either to civilization or extermination. It matters very little that the aggregate Indian population may not be materially less, as some assert, than it was a hundred years ago ; the fact remains that where civilization and savagery have come into close contact, savagery has been obliged to yield. With the frontier towns closing around them, the game disappearing or already gone, railroads and telegraph lines intersecting their reservations, the Indians cannot lead an isolated life, however much they prefer it. If they fight, they will surely be defeated. What plan could be more reasonable than for them to dispose of their surplus lands to the Government, abolish tribal distinctions, accepting lands in severalty, submit to the educating influences of the Government schools and the religious organizations, which are at work among them, and become citizens? This is the present policy of the Government, and it seems eminently wise, just, and hopeful. If it be urged that the land belongs to the Indian by right of prior occupation, and that it is for him to say whether he shall give it up or not, and whether he shall continue his indolent,

useless life, it must be replied that it is the law of Nature and of economics alike that lower conditions be displaced by higher ones, and though such a law seems hard-hearted, it is not so in the long run. It is thus that States and Empires are established, and would be proper enough did not the greed of the stronger usually lead to unfair and unjust treatment of the weak.

Since it is probable that great changes in the social condition and surroundings of the Indians will take place in the next few years, it is evident that now is the time, if ever, to investigate the influence of savage life and surroundings upon the functions of the reproductive apparatus of the women. Comparisons can also be drawn with those who have emerged from savage life, or are in the transition period. Such an investigation has been made during the past year with the coöperation of the honorable Commissioner of Indian Affairs, General Thomas J. Morgan, the late Surgeon-General Dr. J. D. Baxter, and his successor, Surgeon-General Dr. Charles Sutherland. It is needless to say that without their assistance and approval, the investigation could not have been made. A circular-letter expressing the object of the investigation, and the approval of the Indian Commissioner, with blanks containing a series of printed questions, was mailed to each of the fifty-three Indian agents employed by the Government, with the request that they would hand them to the agency physicians,¹ and request them to obtain the desired information. Further assistance was rendered by Surgeon-General Baxter, who notified the army surgeons at twenty posts to gather such information upon the subject in hand as was possible.

It would be no easy matter to fully describe the difficulties which attended the gathering of these data. Experienced

¹ The Government employs one or two physicians at each agency to look after the physical condition of the Indians. The work is very arduous, for some of the reservations cover many miles of territory, and the pay is small.

army surgeons, who had served many years in the Indian country, stated that such data as I desired could not be obtained, and in only a few instances were they, in fact, obtainable at the army posts. From twenty of the Government agencies no response was received ; from nine others the information was so meagre as to be of little value. The basis of this paper consists of information which was obtained mainly from twenty-eight agencies and army posts. I now desire to publicly thank Generals Morgan and Sutherland for their kindly interest and courtesy in this matter, and also all the gentlemen who have furnished me with the information which I have endeavored to arrange. The expressions of fraternal and professional sympathy from many of my correspondents was very delightful, and I feel a deep sense of obligation for the pains and trouble which were taken in my behalf.

The difficulties in gathering this information were manifold. In only a few instances did the records of the offices of the agency physicians give any light upon the subject. The Indians, with the exception of a few tribes, are densely ignorant, and, in many cases, would be unable to grasp the ideas embodied in the simple questions to which I desired answers ; besides, they are reticent, suspicious, and superstitious.

Comparatively few of the older women understand English, and an interpreter intelligent enough to put the questions was not always available. In some tribes a sign language is used, and one who could interpret the spoken language might be of no assistance if the sign language were required. But these were minor obstacles, for it was stated again and again in the communications which I received that Indian women, as a rule, never talk about their genital organs, even to each other, and to speak of such subjects to a man, most of all to a white man, would be a shock to every notion of Indian propriety. It matters not how degraded or unchaste an Indian woman might be, *this* was a subject upon which she

showed what might be called *native modesty* in a double sense. Furthermore, in some of the tribes the men would not have allowed the women to talk upon this subject with white men, even if the women themselves had been disposed to do so.

But, in spite of all these hindrances and objections, some very interesting facts were obtained relating to Indian women at the following agencies :

Pawnee, Ponca, Otoe, and Oakland (Indian Territory).

Shoshone (Wyoming).

Fort Apache (Arizona), army-post.

Cheyenne and Arapahoe (Oklahoma).

Quapaw (Indian Territory).

Fort Belknap (Montana).

Fort Hall (Idaho).

Neah Bay (Washington).

San Carlos (Arizona).

Sac and Fox (Indian Territory).

Round Valley (California).

Omaha (Nebraska).

Uintah (Utah.)

Santee (Nebraska).

Cherokee (Indian Territory).

Colorado River (Arizona).

Crow (Montana).

Klamath (Oregon).

Fort Du Chesne (Utah), army post.

Fort Gibson (Indian Territory), army post.

Fort Reno (Indian Territory), army post.

Fort Union (New Mexico), army post.

Fort Niobrara (Nebraska).

Flathead (Montana).

Fort Peck (Montana).

Nez Percés (Idaho).

Puyallup (Washington).

Green Bay (Wisconsin).

A few facts concerning the social and physical conditions of the Indians located at these agencies are given in an appendix, which is prepared partly from the written communications which I have received, and partly from the report of the Commissioner of Indian Affairs for 1890.

The social condition is referred to in the appendix as—I. Savage. II. Transitional (*a*, poor; *b*, medium; *c*, nearly civilized); III. Civilized.

With many of those who are going through the transitional period, the physical struggle is peculiarly severe. In most of the tribes the deaths exceed the births. It is hard to think it could be otherwise, if we consider the forces which are at work—bad hygiene, improper food, exposure to the vices and excesses of frontier life. Hence, however benevolent the intention of the Government may be, it is evident that the civilizing process will involve extermination of a large portion of the Indian race, and the gradual amalgamation of the remainder with Caucasian and negro elements.

II.

The subjects upon which information was sought included menstruation, conception, gestation, parturition, the puerperal period, the menopause, sexual appetite, pelvic diseases, including the venereal and a variety of others of kindred nature.

DISEASES OF THE REPRODUCTIVE APPARATUS IN CHILDREN.

Concerning diseases of the reproductive apparatus in children no direct information was obtained. The presence of diseases of the lymphatic system, especially scrofula, in many tribes, the general prevalence of venereal disease, and the great mortality among infants, were the only facts bearing upon this question which were ascertained.

PUBERTY.

Data of considerable interest were gathered upon this subject. This condition is influenced by many factors: climate, habits, hereditary tendency, condition of nutrition, etc.

At Fort Apache (Arizona) it was found impossible to determine the age of the Indians at any period of life, and consequently the age at which menstruation began or ended. At the San Carlos (Arizona) Agency the women (Apaches) refused to answer questions upon this and kindred subjects. At Fort Union (New Mexico) the Apache women held there as prisoners were interrogated with good success by Surgeon-Major Lippincott, U. S. A. Among these women menstruation began as follows:

Number of cases.						Age of first menstruation.	
3	.	.	.	.	.	.	10 years.
1	.	.	.	.	.	.	11 "
1	.	.	.	.	.	.	12 "
4	.	.	.	.	.	.	13 "
3	.	.	.	.	.	.	14 "
2	.	.	.	.	.	.	15 "
1	.	.	.	.	.	.	16 "
3	.	.	.	.	.	.	Not known.
Total, 18						Average age for 15 cases, $12\frac{1}{3}$ years.	

These data will apply for the great tribe of Apaches, who live as nearly in a state of nature as possible, wearing very little clothing, subsisting mostly on animal food, and inhabiting the warm, though mountainous, climate of Arizona. They are an unusually active and vigorous people.

No data concerning puberty were obtainable by our correspondent at the Cheyenne and Arapahoe Agency. Even the registry of births required by the Government could not be depended upon, and the officers were obliged to "round up" the entire body of Indians at the annual enrolment, as they rounded up the cattle, in order to get vital statistics. Another correspondent was more successful, and from his report the following table was arranged:

Number of cases.	Age of first menstruation.
1	15 years.
3	16 "
3	17 "
2	18 "
1	20 "
Total, 10	Average age, 17 years.

These Indians are of northern origin, of large frame, and the lateness of puberty is characteristic of their northern habit, though they now live in the Indian Territory.

At Fort Hall (Idaho) Agency the Indians are of the wildest type, and no information could be obtained concerning the menstrual history.

At Fort Belknap (Montana) Agency live the Gros Ventres and Assiniboines. One correspondent referred to their ignorance and unreliability should answers be given to the questions which were put to them. As marriage was often accomplished by the women prior to the fifteenth year, it was supposed that puberty must precede that age. Another correspondent ascertained that puberty came between the twelfth and eighteenth years. These are also northern Indians, living in Montana near the British America line.

At the Santee (Nebraska) and Fort Peck (Montana) Agencies and Fort Niobrara (Nebraska) post are branches of the great Sioux nation, the most powerful among our native Indians. Among them are many excellent types of physical development in women as well as in men. The following data were obtained concerning the age of puberty :

Number of cases.	Age of first menstruation.
1	13 years.
14	14 "
13	15 "
5	16 "
5	17 "
3	18 "
1	19 "
1	23 "
1	Never menstruated, 15 "
4	Unknown.
Total, 48	Average age for 43 cases, 15.11 years.

Among the Klamath (Oregon) Agency Indians—the Klamaths, Snakes, and Modocs—no attention is paid to menstruation, and they seem to be ignorant as to its coming or going.

Among the Neah Bay (Washington) Indians menstruation begins at about the fourteenth year.

At the Quapaw (Indian Territory) Agency all the children are compelled to attend the Government school. Their homes in many instances are filthy, ill-ventilated huts. Menstruation was said to come earlier with them than with white children, but particulars could not be obtained.

At the Sac and Fox (Indian Territory) Agency menstruation begins from the fourteenth to the sixteenth year.

At the Round Valley (California) Agency the beginning of menstruation is appropriately observed, but the women were too densely ignorant to give any satisfactory data in the matter.

The Utes at the Uintah (Utah Territory) Agency begin to menstruate from the fourteenth to the sixteenth year.

The Mojaves at the Colorado River (Arizona) Agency are densely ignorant as to all matters affecting their age after the sixth or seventh year. A reliable correspondent states, however, that he has seen Mojave girls of twelve with the mammary development of women of twenty-five, which is presumptive evidence that puberty is reached by them at an early age, as it is by the Apache girls, who live in the same hot climate.

The girls at the Nez Percés (Idaho) Agency were believed to menstruate at about the same age as white girls living in the same latitude.

The age at the Puyallup (Washington) Agency was said to be from twelve to fourteen.

The Green Bay (Wisconsin) Indians have been surrounded by civilizing influences for many years, and with them menstruation begins at thirteen to fifteen.

Among the Cherokees—who may be taken as the type of the civilized Indians in the Indian Territory, their ways of

living being nearly identical with those of equally civilized white people—menstruation begins somewhat later than with the whites, and with the full-bloods it begins somewhat later than with the mixed.

From the foregoing it would not appear that savage life *per se* either hastens or retards puberty ; climate, occupation, and hereditary tendency are more potent factors.

PHENOMENA AND INCIDENTS OF MENSTRUATION.

With people of filthy habits, as are so many of the Indians, it is not strange that the coming, progress, and going of menstruation should alike be matters of indifference. In only a few instances at only a few of the agencies was there a habit of observing the duration of menstruation. Such instances are the following :

Agency.	Duration of menstruation.
Sac and Fox	3 to 4 days.
Apache	5 to 6 "
Yankton Sioux	2 to 5 "
Puyallup	3 to 5 "

What has already been said will prepare one for the statement that there is less variety in the phenomena of menstruation in Indian than in civilized women. With many, perhaps the majority of them, pain during menstruation is unknown. It has been reported as an occasional occurrence, however, from several sources. Thus, among the Gros Ventres and Assiniboines it is not infrequently complained of at the first menstruation, though rarely after that.

In the carefully written histories of 49 Sioux women pain in the iliac region was complained of by 4. Of the 18 histories of Apache women, pain in the loins during menstruation was complained of by 11. Among the 10 Cheyenne and Arapahoe women, there was but one complaint of menstrual pain, the pain being located in the ovarian region. One Assiniboine and 1 Kickapoo complained of menstrual pain

in the head, chest, and stomach. Among the civilized Cherokees menstrual pain was not infrequent. An interesting case is narrated of a woman who waded in the creek while she was menstruating and ever afterward was sick.

Inquiries as to the quantity of blood lost during menstruation elicited few answers, for reasons which have already been given. No great significance need be attached to the following table, showing replies from agencies heard from on this subject:

Quantity of blood lost during menstruation:

Excessive.	Normal.	Scanty.
Crow.	Puyallup.	Neah Bay.
Fort Belknap.		Cherokee.

Only 1 case of amenorrhœa was reported, and that occurred at Round Valley Agency (California), the woman being twenty years of age, very fat, constipated; married four years. Her uterus was one and three-fourths inches in depth, and she had never menstruated. Among people who are accustomed, as are savages, to observe and mark constantly recurring natural events, we should expect that such an event as puberty, with all that it signifies, would be noted by rites and ceremonies. Nor would it be strange that vigorous people with a surplus of physical energy should celebrate such rites in violent movements of some kind or other. Hence arise the so-called dances with which the advent of puberty is celebrated by some of the tribes. Among the Quapaw (Indian Territory) Indians it is the violent "stamp dance" that is performed. At Round Valley Agency (California) the menstruating girl must join in furious movements with older women and keep it up until exhausted, as it is believed that in this way the flow will be promoted and she will be strengthened for sexual and maternal duties. Exhaustion lasting several days may follow such excesses, but fatal cases were not reported.

At the Neah Bay Agency (Washington) a menstruating girl, at her first menstruation, is isolated three days on a

spare diet. At the end of the third day she is stripped naked, taken to a stream, and washed in the presence of her friends and relatives. Then her parents give a *pil potlach* (giving away of blood), which is analogous to a birthday party, and very disgusting to any but savage perceptions.

MENOPAUSE.

As menstruation is a matter of indifference with many, perhaps the majority, of Indian women, so is it with the menopause. My correspondent at the Quapaw Agency (Indian Territory) had observed that Indian women do not suffer with the nervous troubles which are so common among white women at the menopause. This was attributed in part to racial differences and in part to manner of life. The case of one Shawnee woman at this Agency was narrated, who began to menstruate at fifteen, was married at seventeen, and gave birth to seven children. At forty-six the menopause began and terminated at forty-seven, insanity developing in the interval.

At the Round Valley Agency (California) it was thought that the menopause came earlier than among the whites, but it gave no trouble whatever. At Fort Reno (Indian Territory) it was observed that the menopause usually came abruptly and without noticeable phenomena. At the Puyallup Agency it was thought that the menopause occurred earlier in Indians than it did in white women, on account of the hard work to which they are subjected. The following table shows ages and duration of the menopause at several of the agencies:

Agency.	Age at menopause.	Duration.
Sac and Fox	48	18 months.
Crows and Assiniboines	40 to 50	...
Uintah (Utes)	40 to 50	...
Apache	42 to 53	1 year.
Cheyenne and Arapahoe	2 at 46	abruptly.
" " "	1 at 49	"
" " "	1 at 51	"

Agency.	Age at menopause.	Duration.
Cheyenne and Arapahoe	2 at 54	abruptly.
" " "	1 at 57	"
" " "	1 at 73	"
" " "	1 at 50	2 months.
" " "	1 at 54	2 years.
Sioux	1 at 38	
"	4 at 40	1 year in 5
"	1 at 43	2 years in 5
"	3 at 45	3 " in 1
"	2 at 46	4 " in 3
"	1 at 47	5 " in 1
"	3 at 48	6 " in 1
"	1 at 49	8 " in 1
"	3 at 50	...
"	2 at 51	...
"	1 at 52	...
"	1 at 53	...
"	2 at 58	...

In general, it may be said that the vascular and nervous phenomena observable among civilized women at the menopause are absent in Indians. Malarial diseases were present in the Indian women at Fort Reno (Indian Territory) subsequent to the menopause, but were in no way attributable to that condition. The same may be said of pulmonary phthisis and rheumatism, which developed in two Sioux women after the menopause.

MARRIAGE AND SEXUAL APPETITE.

Marriage, the bulwark of civilized communities, is but lightly esteemed among savages. In some of the tribes communism as to the sexual relations seems to prevail. In many of them polygamy is rife, and the Government is striving hard to repress it. Virtue and chastity are of little worth, especially among those Indians who have been brought in contact with only the baser elements of civilized life—and these usually form the advance guard of our civilization. There is an abundance of the grossly animal characteristics in both male and female Indians, and in nothing has the

influence of education and Christianity been more positive and noteworthy than in the improvement which has taken place in some localities with regard to marriage and the sexual relation.

At the Quapaw Agency (Indian Territory) my correspondent writes me that "blanket marriages" are common and popular, that many of the girls are of easy virtue and live with a man only until they meet one whom they like better.

The Uintah Utes (Utah), though lazy and filthy and with little regard for marriage among themselves, do not cohabit with whites or with Indians of other tribes.

The Mojaves of the Colorado River Agency (Arizona) marry very young, and remain with their husbands only until one or the other tires of the association. They have no form of marriage ceremony.

Marriage is a matter of convenience with the Klamath Agency (Oregon) Indians, young men being not infrequently married to old women.

Among the Crows and Assiniboines and some other tribes a girl has nothing to do with the selection of a husband. The matter is entirely arranged by the suitor and the girl's parents—a horse or some other object of value being agreed upon as the price to be paid for the girl. The girl then measures the man for a pair of moccasins as a sign of acceptance, goes to his lodge, and is henceforth his wife.

The marriage and divorce customs among the Cherokees are much the same as among civilized whites. My correspondent has had twenty years of experience among them, and says that they are more virtuous and more strict in regard to the marriage tie than whites. The marriage ceremony may simply be an agreement to live together, or the more formal one of the church or the civil officer.

There are a few of the tribes, yet uncivilized, in which women are compelled by custom and sentiment to be virtuous; but, from the testimony of most of my correspondents whose information is gained by personal contact with Indians, it is

apparent that as little restraint is imposed upon the sexual appetite by both men and women as upon the passions and appetites in general. A savage life is eminently an animal life. Among the Crows and Assiniboines indulgence is so excessive that the men are frequently impotent at forty.

On the other hand, among the Cherokees and at the Green Bay Agency (Wisconsin), where the social and sanitary conditions of civilized life have been operating, we find greater self-restraint and less ardent sexual appetite.

The following table shows the age at which marriage is usually consummated in some of the tribes :

Name of tribe.	Customary age of marriage.
Cheyenne and Arapahoe	17 to 24
Crows and Assiniboines	15
Kickapoos and Shawnees	15 to 17
Round Valleys	16
Utes	13 to 16
Crows	12 to 14
Puyallups	14 and upward.
Quapaws	16 and under.

CONCEPTION AND GESTATION.

We find the same tricks and crimes accompanying conception and gestation among Indians that are common everywhere. Nor is it probable that their ideas upon these matters are borrowed from civilization. Everywhere, in all grades of society, there seems to be an inherent desire with a certain number of women to avoid the cares and responsibilities of maternity.

Among the Quapaws the child-bearing period ends at thirty-five to forty. They occasionally use means to prevent conception.

The Cheyennes and Arapahoes are quite prolific ; among ten of them the average number of children was 6.1.

Neither the Sacs and Foxes nor the Round Valleys are prolific, and in the families there are seldom more than two or three children.

The Crows and Assiniboines are very fertile, unmarried women frequently having several children. The child-bearing period frequently continues until the forty-fifth year.

The Cherokees are less prolific than the whites. There are now comparatively few full-bloods among them, and they do not seem to be as strong physically as in preceding generations.

Among fifteen Apache women there was but one (aged twenty) who had borne no children; the others had borne from one to nine.

Among forty-nine Sioux there was but one (fifteen years of age) who had borne no children; the others had borne from one to fourteen, the average being slightly over six.

The Skokomish are not prolific; the mixed have more children than the pure bloods.

The Puyallups bear many children.

The Neah Bay (Washington) women drink a decoction of an herb (the name of which my correspondent did not know) to prevent conception, but the very young women are eager to become impregnated, that they may not be compelled to go to the Government school.

The Green Bay (Wisconsin) women bear many children.

Indian women rarely abort, except as the result of severe traumatism. Hardships and ordinary injuries have little effect upon them, in so far as interrupting pregnancy is concerned, but criminal abortion is prevalent to a remarkable degree in some of the tribes.

At the Quapaw Agency (Indian Territory) one abortion was reported as resulting from the kick of a horse. Criminal abortions among the full-bloods are rare at this agency, but among the mixed they are about as frequent as among whites.

Of ten Cheyenne and Arapahoe women who had reached the menopause, not one had ever suffered an abortion.

At the Sac and Fox Agency (Indian Territory) my correspondent had never known of an abortion, either accidental or induced, among the pure bloods.

Among the Crows and Assiniboines criminal abortion is very common, being performed or superintended by specially trained women. In some cases a pointed stick is introduced into the uterus, the ovum being ruptured. In others a stake is driven into the ground, the patient rests her belly upon the upper end of it, which is about two feet from the ground, and whirls around until the fœtus is expelled. Another method is for the patient to lie upon her back, a wide board being laid across her belly. Upon this board two or three of her female friends, in turn, stand or jump until the blood gushes from the vagina; or the belly is kneaded or tramped upon until the fœtus is expelled. Severe as this treatment is, it is said that death seldom results.

Criminal abortion is an occasional occurrence among the Cherokees.

At Fort Reno (Indian Territory) the women were very indignant when asked if they had ever suffered miscarriage.

Of fifteen Apache women one had suffered one miscarriage, another two, and another nine, the first and third of these women being syphilitic.

Of forty-nine Sioux women one, a consumptive, had suffered one miscarriage, and three others had suffered two each; all of the three women were sufferers with ovarian disease, though the extent or variety is not stated.

Abortions are frequent among the Skokomish (Washington) Indians, but whether induced or accidental is not stated.

Let us study, in this connection, for a moment, the condition of the Indian children, and the case which is narrated will apply in many respects to many other tribes, especially those who are passing through the transitional stage. The Modocs are located at the Quapaw Agency (Indian Territory). Many of their infants die under one month of age; many of those who survive have enlarged cervical glands and tonsils. These people live in poorly ventilated huts, are inactive, idle, and depend upon the Government for their food. Dogs and human beings, sick and well, are all huddled together, and

the meat upon which they subsist is hung on the walls of their dwelling. Since their removal from Oregon in 1873, when they numbered 152, there have been 102 births and 170 deaths. Those who were left in Oregon have more than doubled in number in the same period.

The treatment of newborn infants by the Crows and Assiniboines is peculiar. As soon as the baby is born, the midwife seizes the umbilical cord three or four inches from the child's body, ties it with tape or cord, and cuts it with a *new* butcher-knife which was bought months before and has been kept for this purpose. The stump of the cord is kept well greased until it falls off. The babe is then placed unwashed in a laced sack or pouch made of blue cloth (formerly the skin of the buffalo calf was used). The sack contains pulverized bull's manure or the inside bark of the cottonwood tree to keep the child warm and prevent chafing and also to receive the discharges. The sack is emptied several times daily. The dried stump of the cord is preserved in a beaded pouch of antelope's skin about one inch in diameter, fine tobacco being also in the pouch as a preservative. A buckskin thong is attached to the bag, and the child wears it about his neck or waist. It is kept in the family during the life of the original possessor, and men wear them in battle as amulets or charms (mementoes of their birth).

Among the Yankton Sioux, many infants die from scrofula and syphilis.

The majority of the Puyallup children die before puberty. Lactation among the Puyallup Indians may continue two and a half or three years. It is not uncommon for a woman to suckle an infant at one breast, and a child of two or two and a half years at the other.

The children of the Green Bay (Wisconsin) Agency suffer greatly from glandular and eye diseases, and the mortality among them is great.

PARTURITION.

Nature's methods are abundantly and forcibly illustrated by the way in which savages manage parturition. It is not impossible that amid the refinements of the obstetric art we have forgotten some things which these children of Nature find very useful while experiencing parturition.

It was said to me concerning the Mojaves that they experience about as much trouble in having children as a cow does in having a calf, and there is abundant testimony that this remark will apply to Indians generally who have not been weakened by vice or disease.

At the Pawnee Agency (Indian Territory) the Government physician stated that he had rarely attended an Indian confinement, and the one at the Cheyenne and Arapahoe Agency had never been present on such an occasion. Any assistance which might be required was furnished by native midwives, unless some complication arose. At the Quapaw Agency (Indian Territory) not even midwives are required as a rule.

At Fort Belknap (Montana) both midwives and herb-doctors are available for obstetric cases.

At Fort Hall (Idaho) the Government physician has attended one Indian woman in labor during six years of service.

At Round Valley (California), midwives, who are both superstitious and ignorant, are usually employed.

From the Omaha Agency (Nebraska), Dr. Susan La Flèche, an educated Sioux woman, writes me that the sentiments of Indian women at that agency are changing in regard to professional care during their confinements. She has been treated respectfully by the people, and within a short time has attended six confinements in full-bloods and two in half-breeds.

At Fort Peck (Montana) the Agency physician has never been called to attend a full-blooded Indian in labor.

Midwives attend the labor cases among the Nez Percés and Puyallups.

CUSTOMS AND INCIDENTS OF PARTURITION.

A Cheyenne or Arapahoe squaw who is about to be confined goes off by herself or with a midwife, no males being permitted to be near. After labor is completed, she cannot enter the lodge or tepee until she is quite well. The comment upon these Indians by my correspondent was, that they are not much more intelligent than the lower animals nor more civilized than when Columbus discovered America.

The Quapaw squaws, in many cases, are detained from their ordinary duties less than a day by parturition.

At Neah Bay (Washington) labor is usually rapid, and is never followed by bad results.

The Sac and Fox squaws suffer little during parturition. When one of them is taken in labor she gets on her knees, bends forward and rests her chest and arms upon a pillow, bed, or box until delivery is accomplished. Or delivery may be accomplished in the dorsal position, but this is the only Agency from which it was reported that the dorsal position was ever employed. To show the ease with which parturition is accomplished, it was stated that a pregnant woman walked three miles to the Agency on a certain day, went home at night, and the next evening walked in again carrying her newborn baby lashed to a board. Very often labor takes place in the open air and the parturient does not return to her home until the lochial discharge has ceased. This may involve exposure to very severe weather.

The Crow and Assiniboine squaws assume the kneeling position during labor, resting the head against a support eighteen inches or two feet high. During the pains the midwives press or rub the patients in the lumbar region. After the child is born the patient's nose is tickled with a feather, and the sneezing which results assists in the expulsion of the placenta. The placenta is wrapped in the blanket upon which delivery took place, the blanket being then secured in a tree. Should the placenta be eaten by a wolf, coyote, or other

animal, it is believed that the child will resemble that animal or be lost on the prairie and be devoured by animals, its exact fate never being determined. The placenta must not be thrown into the river, as in that case the child might resemble a fish or be drowned and eaten by fish. Labor takes place in the open air, the woman seldom going to bed during or after it, and resuming her work when it is completed.

Parturition among the Utes is almost invariably easy. Though they are a degraded people they live in a wholesome climate which is subject to few changes, and at an altitude of 6500 feet.

The Cherokee women use certain herbs for months prior to labor, in order that it may be easy. When their pains come on they usually conceal themselves until labor is over.

The Mojaves seldom give up more than a day or two to parturition.

The Apaches suffer very little during labor. They wear very little clothing and do not cleanse the external genitals for ten days after parturition.

Labor is short and easy with the Yankton Sioux, though with the half-breeds it is sometimes severe. The full-bloods never go to bed for such a cause. They are confined upon their knees, the head being supported. Between the pains they get up and walk around.

The Puyallups are confined in a sitting posture on the ground, and usually return to work in from one to three days. Occasionally parturition is fatal to both mother and child.

The Puget Sound Indians are usually attended by midwives, and are delivered in the squatting position. They assist themselves by grasping a pole or small tree.

ACCIDENTS OF PARTURITION.

These are of occasional occurrence among Indians, and as they learn to place confidence in the Agency physicians, more

and more opportunities will be afforded for relieving such mishaps. The following cases have been reported to me :

The physician at the Cheyenne and Arapahoe Agency (Indian Territory) was recently asked to remove a placenta which the midwife was unable to remove.

The physician at the Round Valley Agency (California) was called to see a primipara of fourteen, who was having a slow and severe labor, and was allowed to extract with forceps.

At Fort Belknap (Montana) procidentia uteri has been observed as the consequence of labor, and an occasional death from faulty presentation. Two cases of rupture of the uterus were seen there during the past year, both cases being fatal to the mothers and children. No help had been sought while the women were in labor.

DISEASES OF THE PUERPERIUM.

So far as any information could be obtained upon this subject, such diseases are unknown among Indians.

MALIGNANT DISEASE.

At the Quapaw Agency (Indian Territory) malignant disease had been occasionally observed, but it was less common in the full-bloods than in the mixed.

At the Sac and Fox Agency (Indian Territory) it was unknown.

At the Round Valley Agency (California) the only case ever seen was a cancer of right breast in a multiparous woman thirty years of age. It had been in an ulcerated condition two years, and at the time of the report was not progressing.

My correspondent among the Cherokees had removed from full-bloods breasts and superior maxillæ for cancer, but had seen such disease more frequently in whites and mixed breeds.

From no other source was there any indication of the existence of malignant disease.

PELVIC DISEASE.

It is not possible to state upon a basis of *extensive* information, whether pelvic disease is prevalent among Indian women or not. The reasons have been given why such information cannot be obtained. On the other hand evidence enough has been collected to satisfy one that such women are not necessarily exempt from the diseases and deformities of the genital organs to which women in civilized life are subject.

At the Pawnee Agency (Indian Territory) it was said to be a very rare thing to treat a woman for disease of the generative organs.

At the Ponca Agency there was no record of treatment of disease of the female genital organs. During my correspondent's five years' residence there, practice of such a character would have been impossible on account of the prejudice of the squaws against white physicians.

At the Shoshone Agency (Wyoming) it was said that the women never talk to men concerning the genital organs, and if they suffered with disease of those organs would neither consult their native medicine men nor white physicians.

At the Quapaw Agency (Indian Territory) uterine disease is practically unknown.

At the Cheyenne and Arapahoe Agency (Indian Territory) only one woman could be found who gave a history of pelvic disease. She was sixty-one years of age, said that she had suffered pain in the ovarian region during her menstrual periods, and was then suffering with abdominal dropsy.

At Fort Belknap Agency (Montana) there are no records of treatment of pelvic disease, and the women will not usually consult white physicians for such troubles if they are suffering with them. During the past two years my correspondent has had but two opportunities to make vaginal examination with the speculum. Both patients were suffering with venereal disease.

At Fort Hall Agency (Idaho) the men would not permit

the women to consult white physicians for pelvic disease if it was present.

At the Sac and Fox Agency (Indian Territory) my correspondent, who has resided there for four years, has neither seen nor heard of a case of uterine disease, exemption from such disease being due to the mode of dress and abundance of out-door exercise.

At Round Valley Agency (California) one case of pelvic disease has been seen in five and a half years of practice.

At the Omaha Agency (Nebraska) the women would give no information concerning their pelvic organs, even to their female relatives.

Among the Crows and the Assiniboines uterine disease prevails, but its extent is not known. A squaw would not consult a white physician for such a trouble unless compelled by a white husband. She might come to the Agency physician for medicine if sick with venereal disease, but would not submit to a vaginal examination.

The Cherokees suffer from pelvic disease to about the same extent as civilized white women, especially "those who have adopted corsets and opera-heels." A peculiar habit with some of the Cherokee women consists in compressing the mammary glands with round, flat stones to prevent their growth.

At Fort Duchesne (Utah) the post-physician, during ten years' residence, had never been called to treat pelvic disease in Indian women.

At Fort Reno (Indian Territory) the women said they had never had any sickness until the buffalo left, and they were compelled to eat the same food as the whites.

No history of pelvic disease could be obtained by inquiries among the Apaches, the Yankton Sioux, or the Flatheads.

Among the Nez Percés, who are making considerable progress in civilization, it was said that female disease was becoming more common with the advance of civilization. My correspondent reported a case of leucorrhœa and a case

of polymenorrhœa in young women who had abandoned savage life, and had enjoyed the privileges of education.

Pelvic disease was said to be rarely seen at Green Bay Agency (Wisconsin). The physician, during a residence there of a year and a half, had attended one case of gonorrhœa in a woman, and had removed a large vesical calculus from a woman of sixty-five.

VENEREAL DISEASE.

In view of the loose social organization of the Indian tribes, the communistic tendencies in many of them, and the pernicious influence and depraved physical and moral condition of many of the whites who have associated with them, and the general disregard of hygienic conditions in the home and by the individual, it is remarkable that the venereal diseases are not more frequent. The theory still adhered to in some quarters that the Indians as a race are syphilized is not sustained by the frequency and virulence of syphilis in some of the tribes. Among eighteen histories of Apache women, there were four cases of syphilis, and in two of them in which miscarriages occurred, it is fair to presume that the miscarriages and the syphilis were associated consequence and cause. In the forty-nine histories of Sioux women, no cases of syphilis were reported, though it is well known that both congenital and acquired syphilis are common in this nation. The report of the Indian Commissioner alluded to refers to syphilis and other venereal diseases as prevailing at the Ponca, Fort Peck, Fort Hall, San Carlos, Round Valley, Colorado River, and Crow agencies.

III.

CONCLUSIONS.

What conclusions, if any, are warrantable from the facts which have been gathered?

1. *Puberty.* It does not appear that the mere fact of living in a savage state has much to do with the early or late appearance of puberty. The Apaches and Mojaves, of the hot and desert regions of Arizona, mature young—at least, many of them do, but so do the females of Southern Europe and of tropical climates generally, amid surroundings of civilization, with its comforts and abundance. The law is of general application, that animals or plants will mature young under a tropical sun.

On the other hand, the females of the northern tribes—the Cheyennes, Arapahoes, Crows, Assiniboines, and Sioux—develop more slowly, as is the case with women in Northern Europe.

The barbarous and heathenish ceremonies which mark the presence of puberty in some of the tribes should be suppressed, and the Government should be commended in its efforts in this direction.

2. *Phenomena of menstruation.* Savage life, with its vicissitudes and hardships, does not usually interfere with the regular recurrence of the monthly flow. Influences which would disturb or check it, and possibly produce permanent injury to a woman in civilized life, seem to have no such effect upon Indian women. Excessive menstruation seems to be practically unknown.

On the other hand, there are occasional instances of dysmenorrhœa or amenorrhœa in connection with disease or deformity of the pelvic organs, so that savage life does not necessarily furnish immunity from such experience.

3. *Menopause.* Indian women are exceptionally free from the nervous and vascular disturbances which so commonly accompany the menopause in civilized women. The menopause may come abruptly, or it may be prolonged through a series of years. There is as great diversity as to its duration as appears among civilized women in similar physical condition. The isolated instance reported in which insanity developed in an Indian woman at the menopause

appears to have been quite exceptional. The menopause usually comes between the fortieth and fiftieth years, as with civilized women, but it is not infrequently delayed beyond the fiftieth year. Many gestations occurring in rapid succession, continuous hard work and the exposure and physical suffering incidental to a savage life do not tend to shorten the menstrual and childbearing periods.

4. *Marriage and sexual appetite.* The social condition of Indian women is an anomalous one for this age and country. They must bear the burdens, do the drudgery, bring forth and rear the children, and then, perhaps, be cast aside at the merest whim of their husbands. Marriage among American Indians means, as a rule, communism, polygamy, unrestrained lust, according to circumstances, all of which must be abandoned as they emerge into civilization, for they are incompatibles. Sexual appetite in Indians is the uncontrolled and uncontrollable desire of the wild beast, or it is an indifference in women of the degraded and debilitated tribes, except as it is associated with the idea of gain.

5. *Conception and gestation.* The habits and manner of life in the more vigorous and well-developed Indian women are favorable to fruitfulness in childbearing. But the facts that so many children die in infancy, and that the restraints of civilized life are fatal to so many more show that the race is not a hardy one. The unhygienic condition of the homes in many tribes, with their filth and degradation, and the frightful abuses of the abortionists in others, are further tending to weaken the race and impair its future.

6. *Parturition.* The ease with which parturition is accomplished among Indians is an interesting fact. Something is to be said in favor of the posture which they assume during labor, for the squatting or kneeling position is far more favorable to muscular effort than the positions with which we are familiar in the lying-in chamber. This matter may be deserving of some attention on the part of practising obstetricians.

Another interesting fact is the apparently total absence of puerperal diseases among Indian women. This is due to pure air and plenty of exercise, and not to antiseptics or even ordinary hygiene. Do not the quick recovery and return to ordinary duties of Indian parturients suggest that we sometimes keep our obstetric patients in bed longer than is beneficial or necessary? There should be no hard and fast rule in matters of this kind.

That accidents occasionally occur with Indian parturients is simply saying that Nature does not always work efficiently. The domestic animals occasionally require the assistance of a skilful midwife, and die if it is not provided. The same is true of Indian women. Natural labor among Indians is a simple matter, unnatural labor is usually death; it is the higher intelligence of civilization which averts it.

7. *Pelvic disease.* That pelvic disease has not been treated among Indians does not prove that it does not exist. We can fairly presume the existence of the entire class of pelvic diseases which result from infection, deformity, mal-development, and faults of circulation. But they will go untreated and more or less unheeded until the suffering caused by them becomes keener, and confidence in educated physicians, white or red, stronger. The malignant diseases of the reproductive organs seem almost unknown among Indian women. This teaches us that it is not privation, nor hard work, nor exposure, nor giving birth to and rearing many children which, of themselves, lead to the neoplasms which so afflict civilized women the world over; the explanation must be sought elsewhere.

8. *Venereal disease.* Both local and constitutional forms of venereal disease abound among Indian women. The frequency of syphilis, coupled with the great mortality among infants, and the great prevalence of glandular and pulmonary disease among many of those who survive infancy, are evidences of the inroads which venereal disease has made upon Indian vitality.

Finally. Indian women in the savage state undergo less physical suffering in connection with the reproductive apparatus than do civilized women. They menstruate, bear children, and pass the menopause with the minimum of discomfort, as a rule. This is due to three causes: (1) Natural or racial insensitiveness, compared with the far more sensitive Caucasian; (2) abundance of exercise; (3) life in the open air. Civilized life, with its complex conditions, will always present obstacles to the performance of the functions peculiar to women with the same ease with which they are experienced by savages, and when Indian women exchange the savage for the civilized state, they must necessarily adopt, also, some of the ills which are inseparable from the latter.

APPENDIX.

The Ponca Agency in the Indian Territory has a population of 1843, including the Ponca, Otoe, Pawnee, and Tonkawa bands. They are under educational and religious influences. The births last year among them numbered 100, deaths 121. Syphilis prevails. The marriage relation is lightly regarded. They still retain some of their heathenish customs. Condition: transitional, medium.

At the Shoshone Agency in Wyoming are 833 Shoshones and 825 Arapahoes. Births 65, deaths 90. A few of the children attend the Government or religious schools. Condition: transitional, poor.

The Cheyenne and Arapahoe Agency is in Oklahoma. Cheyennes 2272, Arapahoes 1100. Births 187, deaths 413. There are Government and religious schools, but they cling tenaciously to their old ways. Many are polygamists, though the Government is striving to abolish polygamy. Condition: transitional, poor.

The Quapaw Agency in the Indian Territory contains eight small tribes, numbering 1234 in all. These people have intermarried extensively with whites. A weak offspring has resulted, and this, with bad hygiene, has been attended by much disease and death. Still, with the exception of one tribe (Modocs), they

have been making fair progress. Good results have been obtained in the schools, and none of the tribes, except the Modocs, have received any assistance from the Government the past year. Births 43, deaths 30. Condition: nearly civilized.

Fort Peck Agency is in Northeastern Montana and contains 1121 Sioux and 721 Assiniboinés. They have good schools and religious instruction, and are making progress. Syphilis and gonorrhœa are moderately prevalent. Polygamists 160. Births 90, deaths 45. Condition: transitional, medium.

Fort Belknap Agency is in Montana, near the Canada line, and has 770 Gros Ventres and 952 Assiniboinés. About one-fifth of them have abandoned the dress and customs of savagery. There are Government and religious schools, which are poorly attended. They are exceedingly immoral. Births 58, deaths 57. Condition: transitional, poor.

Fort Hall Agency is in Southeastern Idaho, and has 979 Shoshones and 514 Bannocks. They are indolent and unprogressive, and school and church influences have as yet accomplished little. A few are polygamists. Venereal disease is fairly frequent. Births 26, deaths 18. Condition: transitional, poor.

Neah Bay Agency is in the northwestern part of Washington, with the Pacific Ocean and the Strait of San Juan de Fuca bounding two sides of it. It has 454 Makahs, 242 Quillehutes. They are fairly civilized, free from venereal disease, self-supporting, and, with the exception of a few heathenish rites which are broken up with difficulty, are doing well. Births 16, deaths 44. Condition: nearly civilized.

San Carlos Agency is in Southern Arizona and has 4000 Apaches, 557 Mojaves, and 240 Yumas. The Apache has the worst reputation of any American Indian for cruelty, blood-thirstiness, and everything else that is bad. About one-fourth of the children are being educated. Polygamists, more than 100. Venereal disease abounds. Births 205, deaths 132. Condition: savage.

Sac and Fox Agency in Oklahoma has a population of 2062, included in five tribes. In the arts of civilization, in trading, and farming they have made much progress. Many of them are immoral, and family ties are not seriously regarded by many.

The schools and churches among them seem to be doing good work. They are self-supporting, and slowly increasing in numbers. Births 113, deaths 100. Condition: nearly civilized. Pottawatomies already citizens.

Round Valley Agency, in Western California, has a population of 592, including the remnants of eight tribes. They are exceedingly immoral and degraded, marriage being merely a matter of convenience. Three-fourths of them are self-supporting. Venereal disease is prevalent. Births 10, deaths 26. Condition: transitional, poor.

Omaha Agency in Western Nebraska has 1173 Omahas and 1212 Winnebagoes, all of them self-supporting excepting five per cent. of the latter. They are free from venereal disease, but 28 cases of pelvic disease in women were reported last year. Schools and churches are doing good work. The Omahas respect the marriage relation, the Winnebagoes do not. Births 95, deaths 96. Condition: nearly civilized.

Uintah Agency, in Northeastern Utah, has 833 Utes, who are filthy, degraded, and immoral, having made little progress toward civilization. The Government has a school there, but there are no religious societies at work among them. Births 20, deaths 10. Condition: transitional, poor.

Santee Agency, in Eastern Nebraska, has 1161 Sioux and 217 Poncas. Nearly all are self-supporting. The schools are very efficient. There are many native mechanics. Births 39, deaths 44. Condition: nearly civilized.

Union Agency includes the five civilized tribes in Indian Territory, the Cherokees, Creeks, Choctaws, Chickasaws, and Seminoles, 67,000 in all. They have entirely abandoned savage life, and have the same institutions and habits as the whites in the States which are contiguous to them. They have their own schools, asylums, courts and churches, libraries, and printing-presses. Many difficulties and abuses exist, due partly to vicious influences from without and partly to the faults or defects of the Indians themselves. These Indians show the possibilities of the race. Condition: civilized.

Colorado River Agency, in Western Arizona, has a population of 640 Mojaves. They are degraded and immoral, but tractable

and susceptible to good influences. Venereal disease is of limited prevalence. Births 30, deaths 30. Condition: transitional, medium.

Crow Agency, in the southern part of Montana, has a population of 2456 Crows. Good educational and religious opportunities abound. The Government provides more than half of their support. Polygamists, 200. Venereal disease, immorality, and licentiousness abound. Births 60, deaths 90. Condition: transitional, medium.

Klamath Agency, in Southern Oregon, has 835 Klamaths, Modocs, and Piutes, who are ignorant and degraded. Polygamy is common. The Government has two boarding-schools here, from which much benefit is anticipated. Births 13, deaths 25. Condition: transitional, poor.

Flathead Agency, in Northwestern Montana, has a population of 1784, of whom all but 84 are church members. The educational and religious influences are good. Most of the Indians are progressive and thrifty, with the exception of a band of Kootenais. Births 60, deaths 78. Condition: transitional, medium.

Nez Percés Agency, in Northwestern Idaho, has a population of 1715 Nez Percés, nearly half of whom are church members. They are making good progress. Births 33, deaths not stated. Condition: nearly civilized.

Puyallup Agency, in Western Washington, has a population of 1830, including sixteen tribes. Most of them are self-supporting. Many are civilized and citizens, intelligent, industrious, and in some cases wealthy, but disease is diminishing their numbers. Births 88, deaths 91. Condition: civilized.

Green Bay Agency, in Eastern Wisconsin, has a population of 3164, belonging to the Oneida, Stockbridge, and Menomonee tribes. They are quite civilized and prosperous. Births 67, deaths 84. Condition: civilized.